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BALDONNELL 110KV SUBSTATION

Traffic and Transportation Assessment

MAY 2023



BALDONNELL 110KV SUBSTATION

TRAFFIC AND TRANSPORTATION ASSESSMENT

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Table of Contents

1.0	NON-TECHNICAL SUMMARY	5
2.0	INTRODUCTION	7
2.1	INTRODUCTION	7
2.2	OBJECTIVES.....	7
2.3	SCOPING	7
2.4	STRUCTURE OF THE REPORT	7
3.0	PROPOSED DEVELOPMENT	8
3.1	SITE LOCATION	8
3.2	DESCRIPTION OF PROPOSED DEVELOPMENT.....	9
3.3	JUNCTION LOCATIONS.....	9
3.4	CUMULATIVE IMPACTS.....	9
3.5	TRAFFIC SURVEY	10
3.6	EXISTING ROAD NETWORK	11
3.7	PROPOSED NETWORK IMPROVEMENTS.....	11
3.8	PROPOSED SITE ACCESS JUNCTION.....	11
4.0	TRIP GENERATION AND DISTRIBUTION.....	12
4.1	COVID-19 ADJUSTMENT	12
4.2	OPENING AND FUTURE YEAR FLOWS AND ENVIRONMENT	12
4.3	TRIP GENERATION	12
4.3.1	TRIP GENERATION OF PROPOSED DEVELOPMENT.....	13
4.3.2	TRIP DISTRIBUTION	14
4.3.3	TRIP DISTRIBUTION OF PROPOSED DEVELOPMENT	14
4.4	TRIP DISTRIBUTION OF BASEFLOW PLUS GENERATED TRAFFIC 16	
5.0	TRAFFIC IMPACT.....	23
5.1	JUNCTION ANALYSIS	23
5.1.1	INTRODUCTION AND METHODOLOGY	23
5.1.2	ASSESSMENT TIME AND YEARS.....	23
5.1.3	ANALYSIS RESULTS.....	23
5.1.3.1	JUNCTION 1 – R134 NEW NANGOR ROAD / KILCARBERY PARK / PROFILE PARK - ROUNDABOUT.....	23

5.1.3.2	JUNCTION 2 – PROFILE PARK INTERNAL - ROUNDABOUT	25
5.1.3.3	JUNCTION 3 – PROPOSED SITE ACCESS - T JUNCTION	26
6.0	OTHER ROAD ISSUES.....	27
6.1	ROAD SAFETY	27
7.0	MOBILITY MANAGEMENT	28
7.1	PEDESTRIANS & CYCLISTS	28
7.2	PUBLIC TRANSPORT	28
7.3	ACCESS FOR PEOPLE WITH DISABILITIES.....	28
8.0	CONCLUSIONS AND RECOMMENDATIONS.....	29
8.1	CONCLUSIONS.....	29
8.2	RECOMMENDATIONS.....	29

Index of Figures

Figure 3.1: Site Location 0016021 © Ordnance Survey Ireland/Government of Ireland	8
Figure 3.2: Traffic Count Locations	9
Figure 3.2: Traffic Count Locations	10
Figure 4.1: Traffic Distribution for AM Peak Hour at Junction 1.....	14
Figure 4.2: Traffic Distribution for PM Peak Hour at Junction 1	14
Figure 4.3: Traffic Distribution for AM Peak Hour at Junction 2.....	15
Figure 4.4: Traffic Distribution for PM Peak Hour at Junction 2	15
Figure 4.5: Traffic Distribution for AM Peak Hour at Junction 3 (Site Access)	16
Figure 4.6: Traffic Distribution for PM Peak Hour at Junction 3 (Site Access)	16
Figure 4.7: Baseflow Traffic 2021 AM Peak – Junction 1	17
Figure 4.8: Baseflow Traffic 2021 PM Peak – Junction 1	17
<i>Figure 4.9: Baseflow Plus Generated Traffic 2023 AM Peak – Junction 1.....</i>	<i>17</i>
Figure 4.10: Baseflow Plus Generated Traffic 2023 PM Peak – Junction 1.....	18
Figure 4.11: Baseflow Plus Generated Traffic 2024 AM Peak (Completion of Construction) – Junction 1.....	18
Figure 4.12: Baseflow Plus Generated Traffic 2024 PM Peak (Completion of Construction) – Junction 1.....	18
Figure 4.13: Baseflow Traffic 2021 AM Peak – Junction 2	19
Figure 4.14: Baseflow Traffic 2021 PM Peak – Junction 2	19
Figure 4.15: Baseflow Plus Generated Traffic 2023 AM Peak – Junction 2.....	19
Figure 4.16: Baseflow Plus Generated Traffic 2023 PM Peak – Junction 2	20
Figure 4.17: Baseflow Plus Generated Traffic 2024 AM Peak – Junction 2.....	20
Figure 4.18: Baseflow Plus Generated Traffic 2024 PM Peak – Junction 2	20
Figure 4.19: Baseflow Traffic 2021 AM Peak – Junction 3	21
Figure 4.20: Baseflow Traffic 2021 PM Peak – Junction 3	21
Figure 4.21: Baseflow Plus Generated Traffic 2023 AM Peak – Junction 3.....	21
Figure 4.22: Baseflow Plus Generated Traffic 2023 PM Peak – Junction 3	22
Figure 4.23: Baseflow Plus Generated Traffic 2024 AM Peak – Junction 3.....	22
Figure 4.24: Baseflow Plus Generated Traffic 2024 PM Peak – Junction 3	22
Figure 6.1: RSA Irish Road Collision Statistics	27

Index of Tables

Table 4.1: Growth Factors for light vehicle (LV) and heavy vehicles (HV)	12
Table 4.2: Expected Peak Trip Generation for Proposed Development for AM Peak Hour	13
Table 4.3: Expected Peak Trip Generation for Proposed Development for PM Peak Hour	13

Table 5.1: Junction 1 Results: R134 New Nangor Road / Kilcarbery Park / Profile Park AM & PM Peak Hours..... 24

Table 5.2: Junction 2 Results – Internal Profile Park Roundabout AM & PM Peak Hours 25

Table 5.3: Junction 3 Results – Proposed Site Access – T Junction, AM & PM Peak Hours... 26

Appendices

APPENDIX A. SCOPING DOCUMENT

APPENDIX B. ORIGIN / DESTINATION MATRICES

APPENDIX C. JUNCTION 10 ARCADY DETAILED OUTPUT - JUNCTION 1

APPENDIX D. JUNCTION 10 ARCADY DETAILED OUTPUT - JUNCTION 2

**APPENDIX E. JUNCTION 10 PICADY DETAILED OUTPUT - JUNCTION 3
(SITE ENTRANCE)**

1.0 NON-TECHNICAL SUMMARY

The Non-Technical Summary is a synopsis of the traffic and transportation assessment for the proposed 110kV electrical substation from the adjacent peaking power plant to the existing electricity transmission system. The proposed development sought by Greener Ideas Limited for the construction of a substation:

The proposed development, consisting of:

- EirGrid/ ESNB Control Room building
- Associated Internal 20kV Underground Cabling
- Installation of a 110/20kV Transformer (TRAFO) with associated equipment including:
 - Cable Sealing End
 - Surge Arrestor
 - Earth Disconnect
 - Current /Voltage Transformer
 - House Transformer
 - Circuit Breaker
 - Lightning Mast
- 110kV underground cable to Barnakyle 110kV substation 3 No Power Ducts and 2 No Telecoms Ducts.
- Diesel Generator
- Security Fencing and 2 no. Security Cameras and Poles
- Approximately 15 no. Lights
- Temporary Construction Compound

A scoping document was issued on the 20th of February 2023 to South Dublin County Council (SDCC) Roads Department. This document outlined the proposed approach that the Traffic and Transportation Assessment would take and identified the junctions which would be included in the analysis.

A COVID-19 adjustment check was undertaken on the traffic count data to determine if the traffic on the date of the traffic count survey is representative of the annual average traffic for the year. The traffic survey data was assessed for a COVID-19 adjustment and it was determined that on date of the survey traffic volume was below average compared to the historical annual average daily traffic (AADT) in the area. (Confirmed through historical and recent ATC counts carried out on the 24th of March 2021 and historically obtained data pre COVID, Jan 2018) and hence an adjustment factor of 1.21 was applied to the data.

Given that operational traffic for the proposed development (less than 5 vehicle movements per day), assessments were carried out on the Construction Phase traffic impact to the site rather than as per the TII Traffic and Transportation Assessment Guidelines.

The assessment has focused on the construction phase as per following:

- the beginning of construction 2023; and
- the finalising of construction 2024 (18months).

The traffic count data was forecasted using the TII Project Appraisal Guidelines Unit 5.3: Travel Demand Projections for high growth.

The assessments were undertaken using JUNCTION 10 ARCADY. The Ratio of Flow to Capacity (RFC) values are shown to be significantly lower than the maximum RFC of 0.85. The maximum RFC of 0.49 was shown at the New Nangor Road / R134 Roundabout Junction.

2.0 INTRODUCTION

2.1 INTRODUCTION

TOBIN Consulting Engineers Ltd have been appointed by Greener Ideas Limited, to prepare a Traffic and Transportation Assessment Report for a proposed 110kV electrical substation located in Kilcarbery Dublin 22. The existing site area is a green field site.

In preparing this report, TOBIN Consulting Engineers has referred to

- South Dublin County Development Plan 2022 – 2028.
- TII PE-PDV-02045 Traffic and Transport Assessment Guidelines (May 2014); and
- TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3: Travel Demand Projections (October 2021)

2.2 OBJECTIVES

The objective of this report is to assess the impact the proposed development will have on the existing road network. This report will calculate the expected volume of traffic that will be generated by the proposed development and assess the impact that this traffic will have on the operational capacity of the road network in the vicinity of the development. The junctions to be analysed as part of this report are the following:

- Junction 1: The roundabout R134/profile Park/Kilcarbery Park.
- Junction 2: Internal Roundabout Profile Park
- Junction 3: Existing Site Access T-Junction

2.3 SCOPING

In order to ensure the scope of this report was to the satisfaction of South Dublin County Council, a scoping document was issued on the 20th of February 2023 to South Dublin County Council Roads Department. This document outlined the proposed approach that the Traffic and Transportation Assessment would take and identified the junctions which would be included in the analysis (Appendix A).

2.4 STRUCTURE OF THE REPORT

This report is divided into eight chapters:

- Chapter 1 is a Non-Technical Summary.
- Chapter 2 includes this introduction.
- Chapter 3 describes the proposed development, and its location.
- Chapter 4 provides an overview of the existing and proposed traffic conditions, explaining how this information was obtained.
- Chapter 5 outlines the assumptions that have been made in the calculation of traffic generated by the development and the factors used to forecast the future road network traffic.
- Chapter 6 explains the methodology used and the results of the analysis performed on the nominated junctions. An investigation into link capacity is also dealt with in this chapter.
- Chapter 7 addresses issues relating to road safety, parking provision, pedestrians & cyclists and access for people with disabilities.
- Chapter 8 concludes the report.

3.0 PROPOSED DEVELOPMENT

3.1 SITE LOCATION

The proposed development site is located at Profile Park Business Campus in the Kilcarbery area of Dublin 22. The site location is shown in Figure 3.1.

Profile Park comprises a 100 acre (40.5 Ha) fully enclosed, private business park strategically located on the outskirts of Dublin City the Park is easily accessible from the major arterial roads in the City including the M50, M7 and M4, and is served by public transport links also.

Profile Park is noted for the very heart of what is rapidly becoming “Ireland’s Data Centre Cluster” with Google, Microsoft, Digital Realty Trust and Teledat all located in the immediate vicinity.

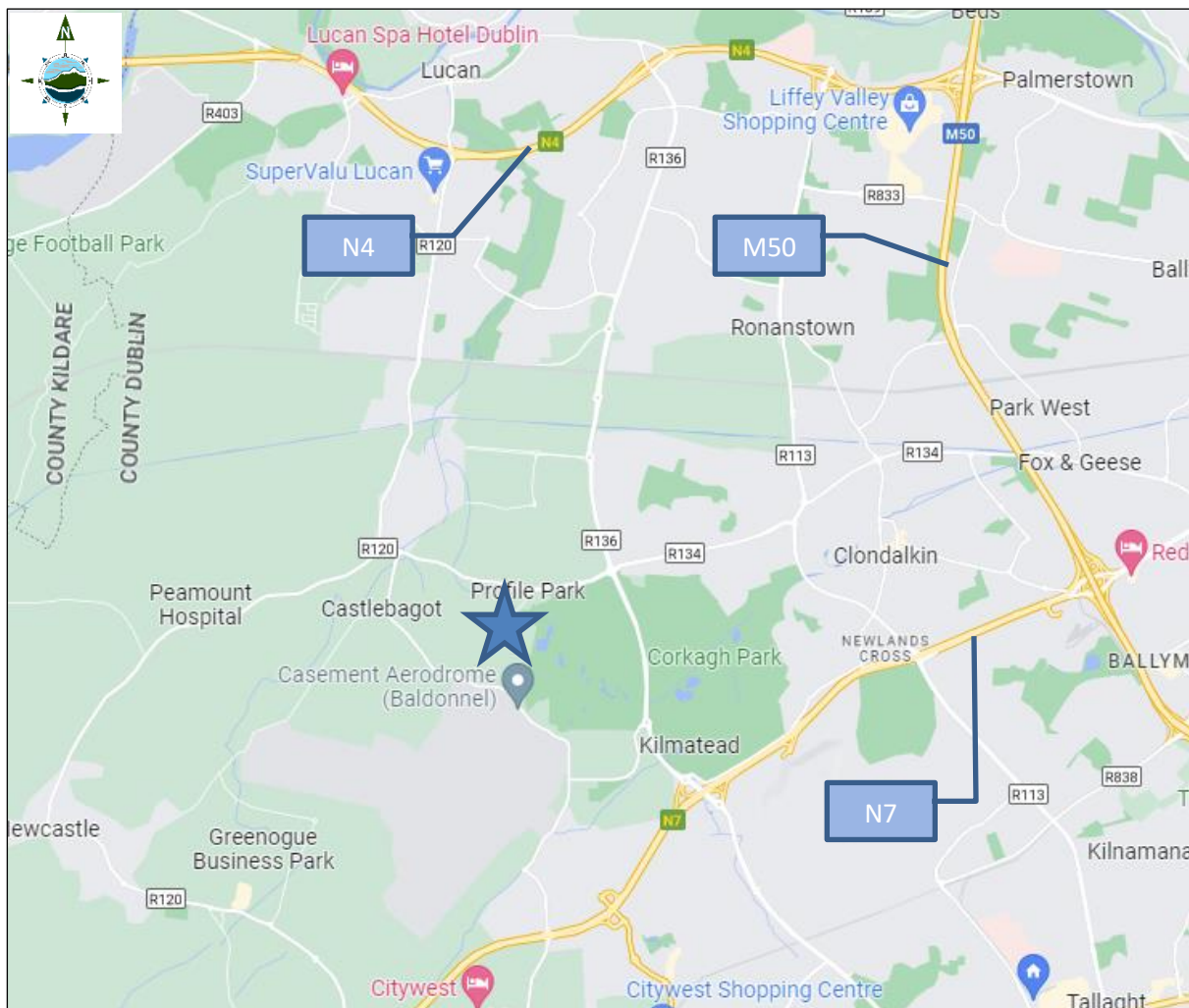


Figure 3.1: Site Location 0016021 © Ordnance Survey Ireland/Government of Ireland.

3.2 DESCRIPTION OF PROPOSED DEVELOPMENT

Planning permission is being sought by Greener Ideas Limited for proposed Baldonnell 110kV substation site measures approximately 87.78m long x 22.25m wide and will be bounded by a 2.6m high palisade fence.

3.3 JUNCTION LOCATIONS



Figure 3.2: Traffic Count Locations

3.4 CUMULATIVE IMPACTS

A planning search was carried out which revealed some committed development in the area over the period of 2017 to 2021. These other developments are primarily related to ongoing data centre construction and expansion works in the adjacent business parks. These developments are considered to be accounted for in the yearly growth figures, hence the use of the high sensitivity growth rates (TII PE-PAG-02017).

3.5 TRAFFIC SURVEY

In order to determine the magnitude of the existing traffic flows, the results of a manual classified junction turning count was carried out by Nationwide Data Collection on Tuesday 23rd March 2021 between the hours 07:00 and 19:00. As shown in Figure 3.3 the count information was obtained for the following junctions:

- Site 1: R134 New Nangor Road – Kilcarbery Park – Profile Park Roundabout
- Site 2: Profile Park Internal Roundabout

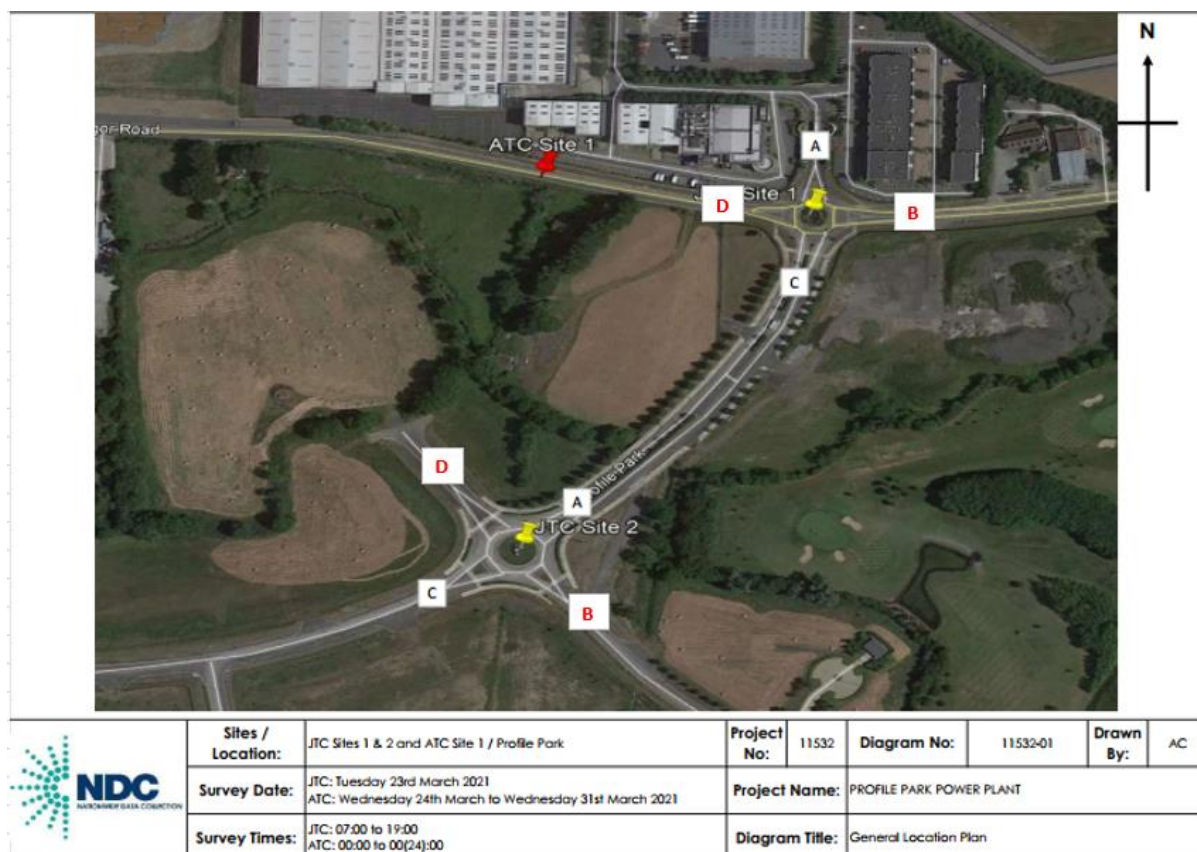


Figure 3.3: Traffic Count Locations

This survey distinguished between light good vehicles and heavy good vehicles. The traffic count data is included in Appendix C of this report. The results of this survey indicated that the peak traffic levels through these junctions occurred between the hours of 08:30 and 09:30, and between PM peak between 17:00 and 18:00.

Link-based growth rates (high sensitivity growth rates) were applied to the 2021 traffic flows to determine background traffic flows for the future assessment years.

In addition to the manual traffic counts, Nationwide Data Collection also carried out Automated Traffic Counts Eastbound and Westbound along the R134. In connection with historical traffic count data purchased from NDC Ltd on 28th January 2018 to 04th February 2018, TOBIN obtained this ATC data to generate COVID-19 adjusted traffic flows by establishing a base traffic flow and applying an adjustment factor accordingly.

3.6 EXISTING ROAD NETWORK

The proposed development is to be accessed from the R134 New Nangor Road. The proposed site access is situated within an 60km/h default urban speed zone. The R134 New Nangor Road has a carriageway width of approximately 7.3m in the vicinity of the access to Profile Park Business Park. The R134 also provides a fully segregated two-way cycle facility on the eastbound direction along 2.25m width footpath. Tactile paving crossing points and street lighting are present at the existing junction along with roadside bus stops.

3.7 PROPOSED NETWORK IMPROVEMENTS

Currently, there are no proposed improvements to the road network in the region.

3.8 PROPOSED SITE ACCESS JUNCTION

It is proposed to utilise the existing T-junction access from a main arteries route within Profile Park.

The Business Campus of Profile Park is located of a R134 Regional Road and is well services by regional roads such as the R120, R136 and R113 on its immediate surroundings. The park is situated approx. 5km away from the N4 and M50 to the North and East respectively and approx. 2.5km from the N7 to the South providing excellent access to some of the country's main infrastructural links. It is envisaged that the origin for all Construction Traffic and Deliveries will be facilitated by either one of these 3 major infrastructure routes with the Regional Roads providing the link right to the site boundary.

4.0 TRIP GENERATION AND DISTRIBUTION

4.1 COVID-19 ADJUSTMENT

In order to undertake an analysis of the key junctions in relation to this Traffic and Transport Assessment in the current climate of COVID-19 and with travel restrictions in place, it is necessary to apply a correction factor. This correction factor is to take the traffic count data recorded onsite and adjust the traffic flows to take account of the significant reduction in traffic volumes currently being experienced. A comparison was undertaken between historical traffic count data along the R134 New Nangor Road from Jan 2018 (Pre-COVID-19) and the TII traffic count information for the day of the survey in March 2021. An analysis of both data sets was carried out and as was expected, the traffic count on the day of the survey was significantly lower than the traffic count data from January 2018.

An adjustment factor was applied to the traffic count data by applying high sensitivity TII growth rates to the 2018 data and comparing the expected 5 day AADT for 2021 against the surveyed 5 day AADT.

4.2 OPENING AND FUTURE YEAR FLOWS AND ENVIRONMENT

The proposed development will be constructed in one phase with the development planned for opening in 2025. Given the Nature of the development as a Power Plant with minimal daily staff (less than 5 vehicle movements per day once operational), this Traffic Assessment has focused on the Construction elements and the traffic volumes associated over the course of the construction period (2023-2025). The opening year of Construction of 2023 was utilised for the purpose of the traffic assessment having been identified as a period of peak construction. In addition to the opening year, the close out and commissioning period of the construction works (2025) is being utilised for the traffic assessment to ensure that any impacts associated with the traffic element of the construction have adequately been assessed.

The link-based annual growth rates were updated in 2021 by the TII, with annual growth rates shown for each county. Those for Dublin are shown in Table 4.1. The derived growth factors were applied to 2021 traffic flows to determine background traffic flows for the assessment years. The assessment is split into light vehicles and heavy vehicles.

Table 4.1: Growth Factors for light vehicle (LV) and heavy vehicles (HV)

	2016-2030
LV	1.0211
HV	1.0348

4.3 TRIP GENERATION

The volume of traffic expected to be generated during the AM and PM peak hours for the construction phase of the proposed development were established from detailed information provided by the Client. These figures include details of peak construction staff numbers and mass haul movements to identify peak times of Construction activity.

4.3.1 TRIP GENERATION OF PROPOSED DEVELOPMENT

Trip Rates for the various uses within the development have been determined for weekdays, Monday to Friday, to coincide with the maximum levels of existing traffic on the adjacent road network. The volume of traffic expected to be generated by the proposed construction phase of the development during the AM and PM peak hours are shown below in Table 4.2 and Table 4.3.

It is expected a total of 59 no. vehicles per day during the peak construction period and 5 no. vehicles per day expected during the average construction period over the 18-month Construction programme.

Table 4.2: Expected Peak Trip Generation for Proposed Development for AM Peak Hour

EXPECTED TRIP GENERATION FOR PROPOSED DEVELOPMENT (AM PEAK HOUR)		
	Arrivals	Departures
Light Goods Vehicles (LGV)	10	
Daily Delivery Heavy Goods Vehicles (HGVs)	5	5
Total	15	5

Table 4.3: Expected Peak Trip Generation for Proposed Development for PM Peak Hour

EXPECTED TRIP GENERATION FOR PROPOSED DEVELOPMENT (AM PEAK HOUR)		
	Arrivals	Departures
Light Goods Vehicles (LGV)		10
Daily Delivery Heavy Goods Vehicles (HGVs)	5	5
Total	5	15

Table 4.2 and Table 4.3 show the expected total of vehicles during the busiest time of the construction phase. It is expected 10 no. people on site and 59 no. HVGs over the 12-hours construction time, which results in 10 LGVs and 5 HGVs arriving, and 5 HGVs departing in the AM peak. And, 10 LGVs and 5 HGVs departing, and 5 HGVs arriving in the PM peak.

4.3.2 TRIP DISTRIBUTION

4.3.3 TRIP DISTRIBUTION OF PROPOSED DEVELOPMENT

It was envisaged the proposed traffic distribution matches the existing traffic distribution at each of the junctions, with the exception of the site access, Junction 3. The passing traffic shall be utilised for the proposed traffic distribution at Junction 3 as the junction although constructed is not in use / occupied by a development generating traffic. The existing development trip distribution applied to the per peak hour are shown below.

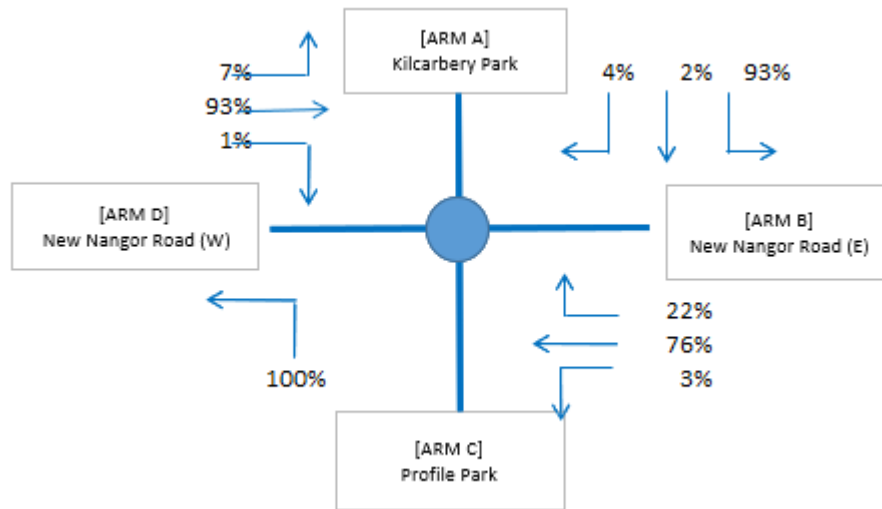


Figure 4.1: Traffic Distribution for AM Peak Hour at Junction 1

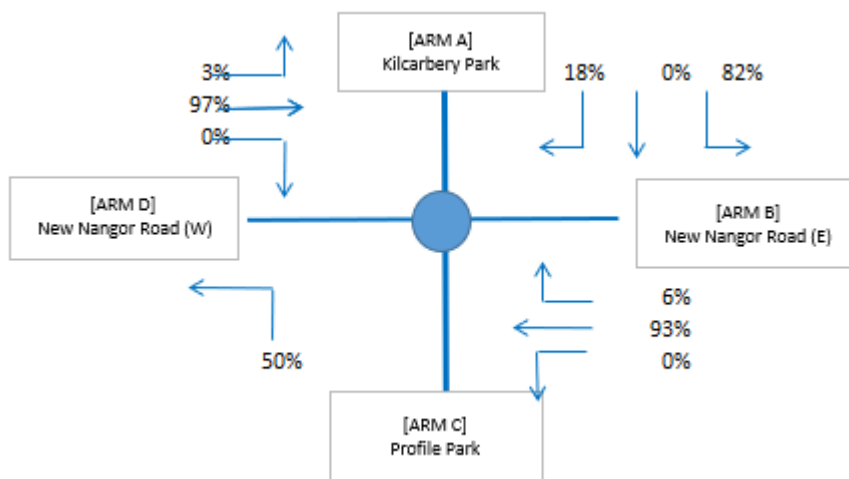


Figure 4.2: Traffic Distribution for PM Peak Hour at Junction 1

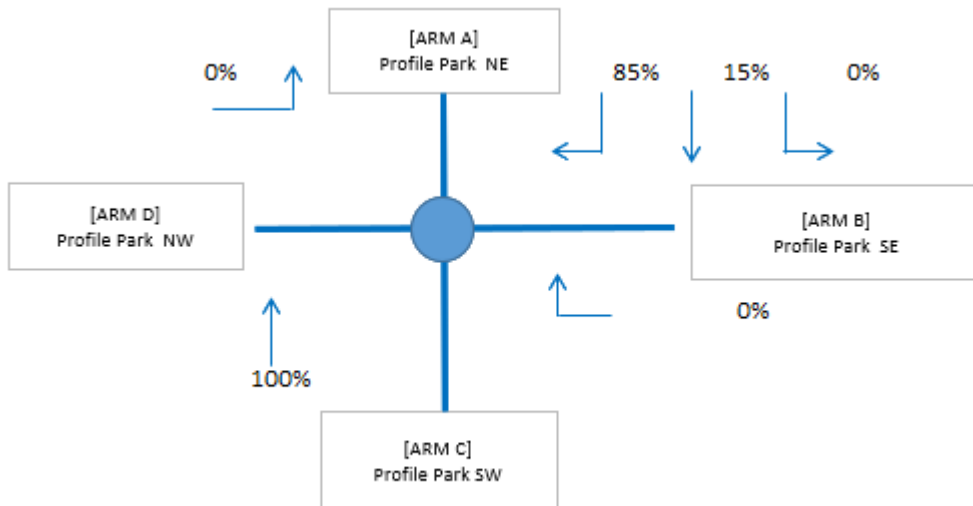


Figure 4.3: Traffic Distribution for AM Peak Hour at Junction 2

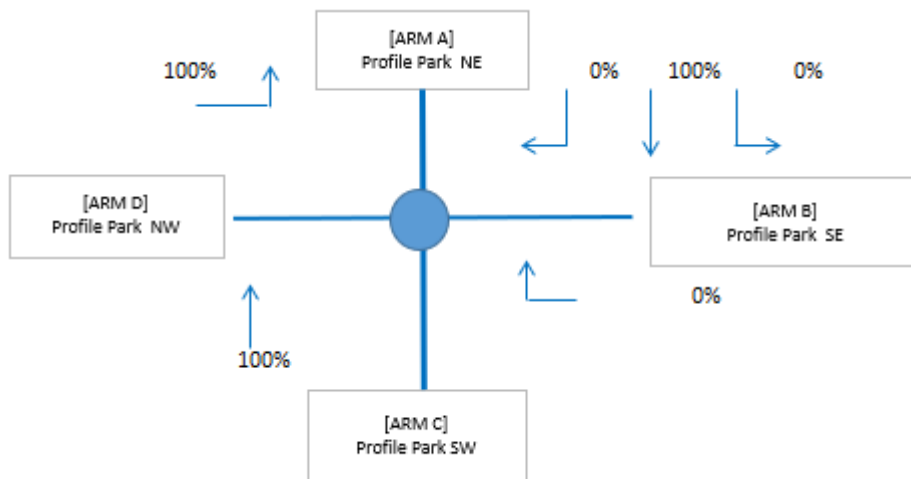


Figure 4.4: Traffic Distribution for PM Peak Hour at Junction 2

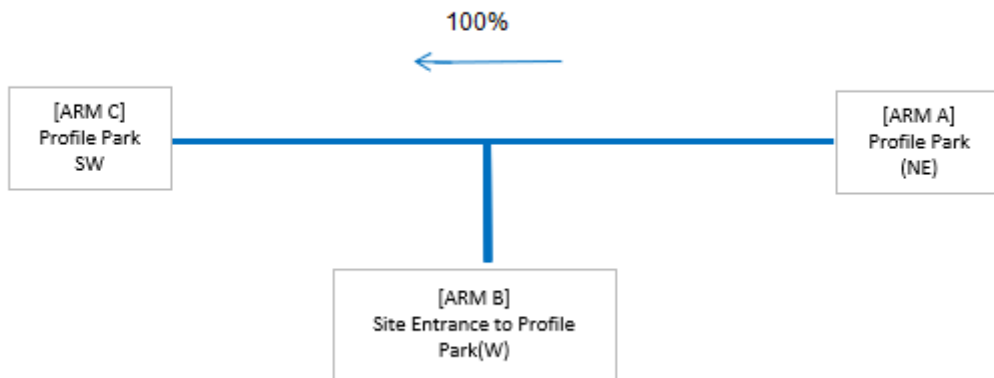


Figure 4.5: Traffic Distribution for AM Peak Hour at Junction 3 (Site Access)

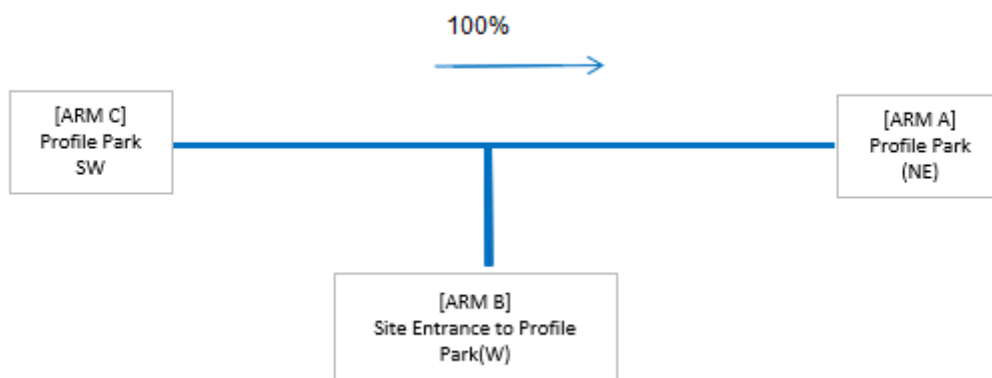


Figure 4.6: Traffic Distribution for PM Peak Hour at Junction 3 (Site Access)

4.4 TRIP DISTRIBUTION OF BASEFLOW PLUS GENERATED TRAFFIC

The baseline plus generated traffic for the year of opening of Construction 2023 and the Completion of Construction, 2025, for both the AM and PM peak hours are shown in the Figures below.

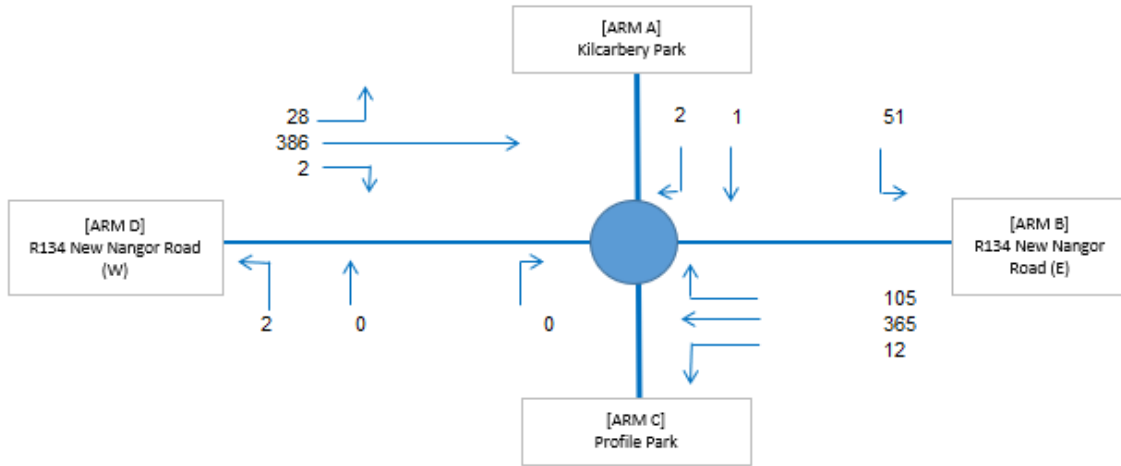


Figure 4.7: Baseflow Traffic 2021 AM Peak - Junction 1

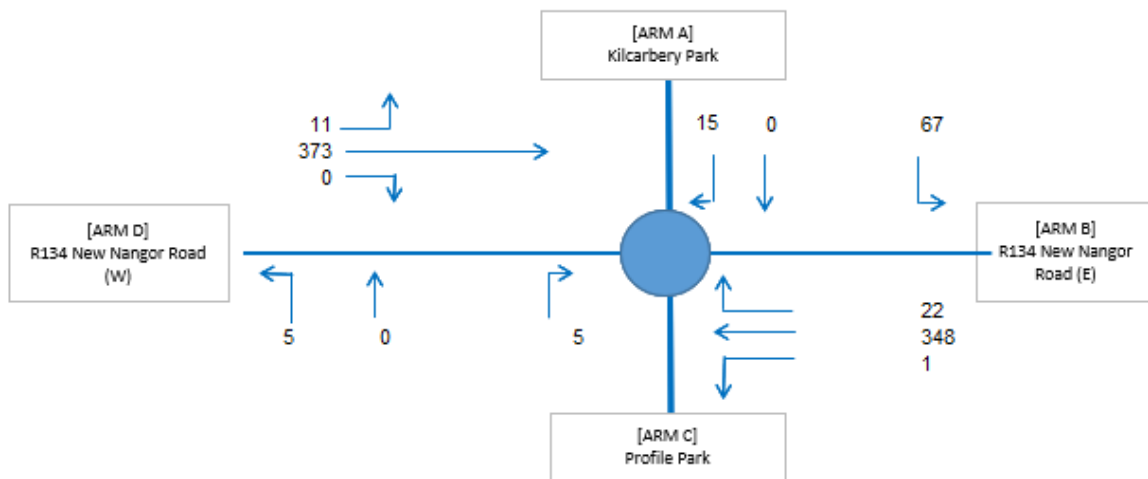


Figure 4.8: Baseflow Traffic 2021 PM Peak - Junction 1

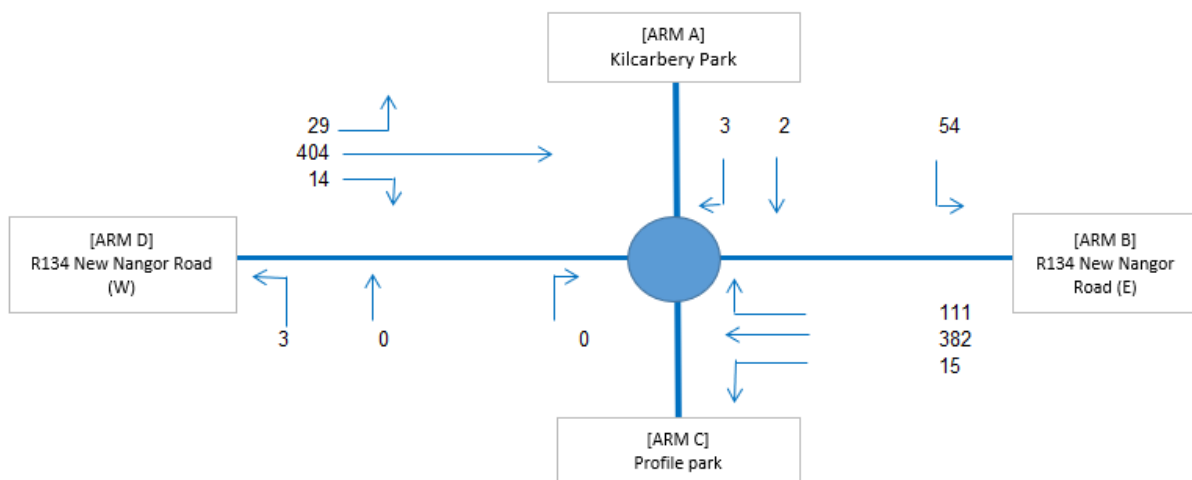


Figure 4.9: Baseflow Plus Generated Traffic 2023 AM Peak - Junction 1

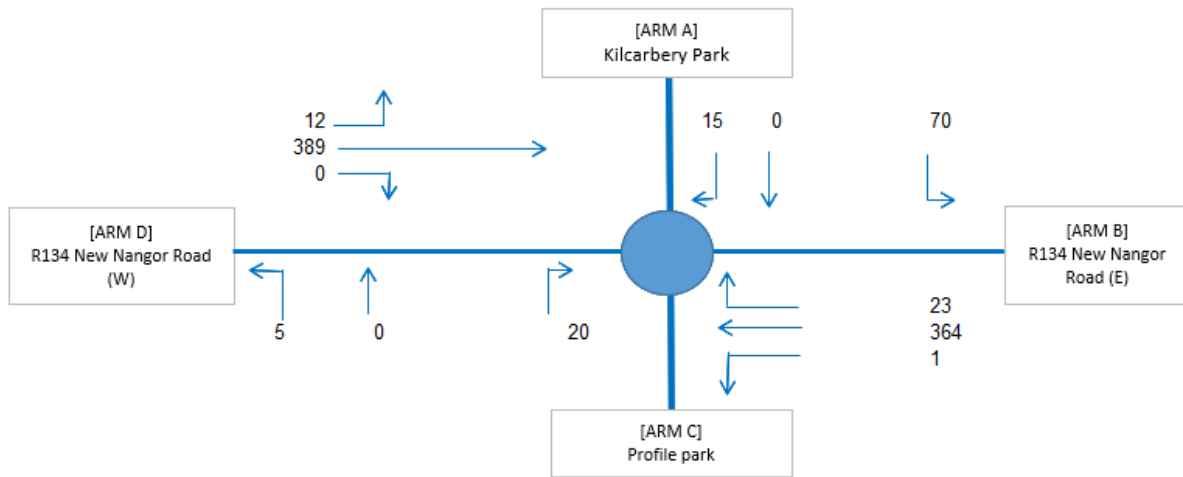


Figure 4.10: Baseflow Plus Generated Traffic 2023 PM Peak – Junction 1

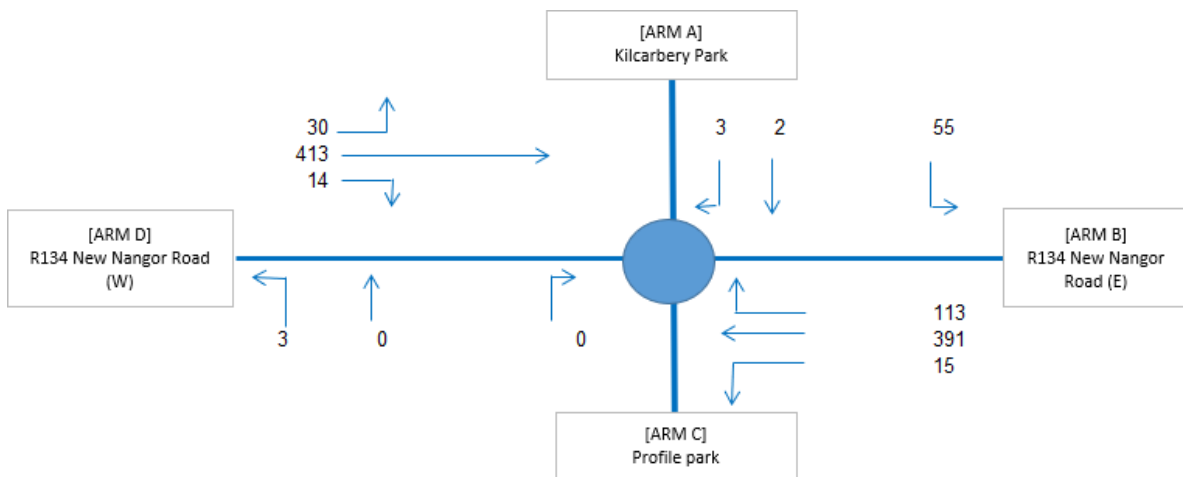


Figure 4.11: Baseflow Plus Generated Traffic 2024 AM Peak (Completion of Construction) – Junction 1

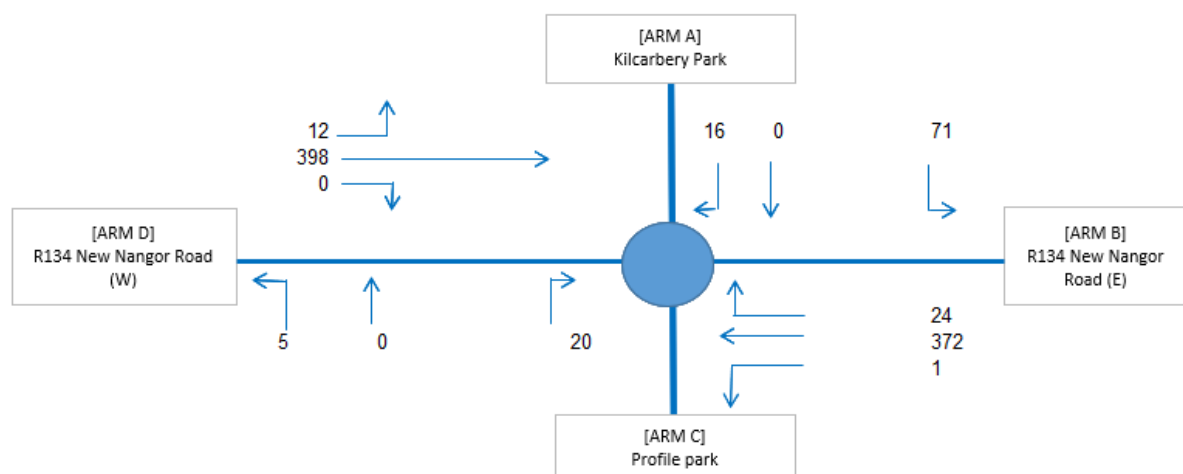


Figure 4.12: Baseflow Plus Generated Traffic 2024 PM Peak (Completion of Construction) – Junction 1

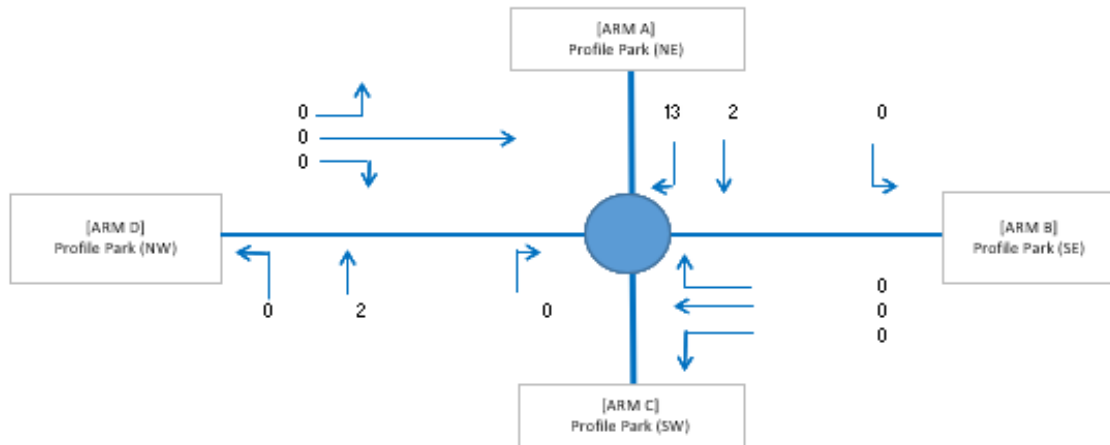


Figure 4.13: Baseflow Traffic 2021 AM Peak – Junction 2

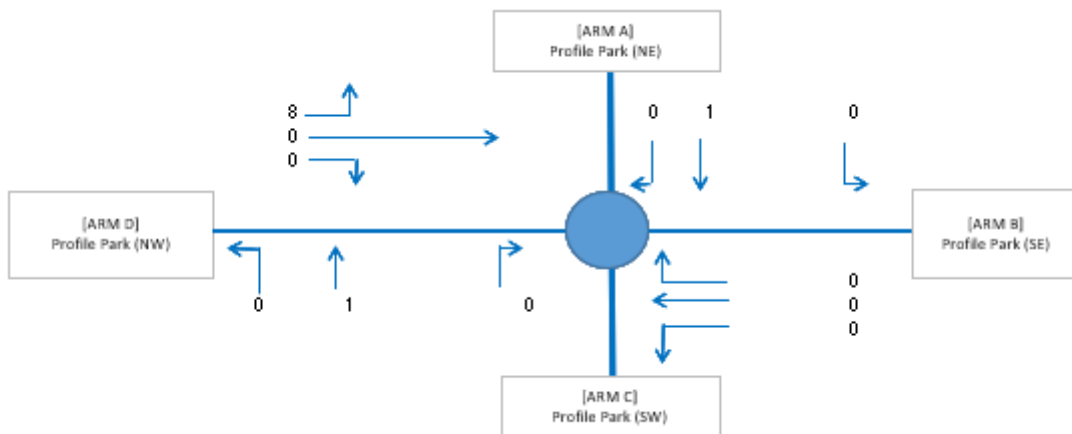


Figure 4.14: Baseflow Traffic 2021 PM Peak – Junction 2

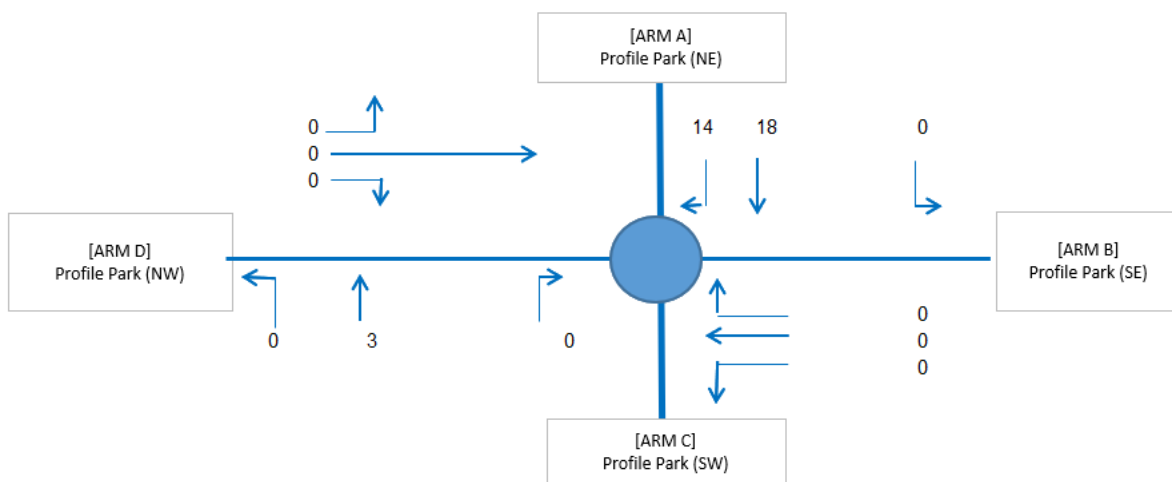


Figure 4.15: Baseflow Plus Generated Traffic 2023 AM Peak – Junction 2

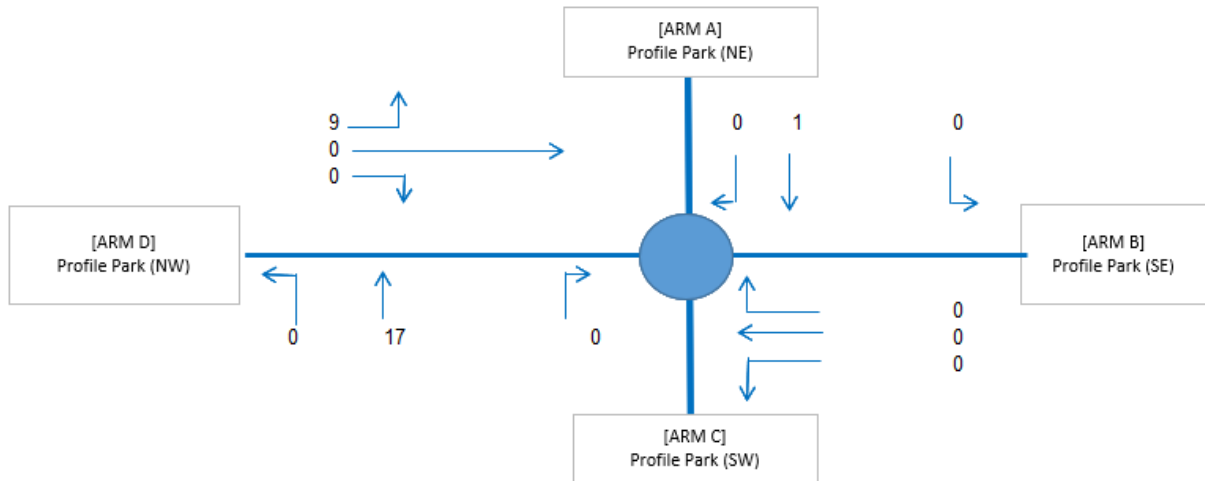


Figure 4.16: Baseflow Plus Generated Traffic 2023 PM Peak - Junction 2

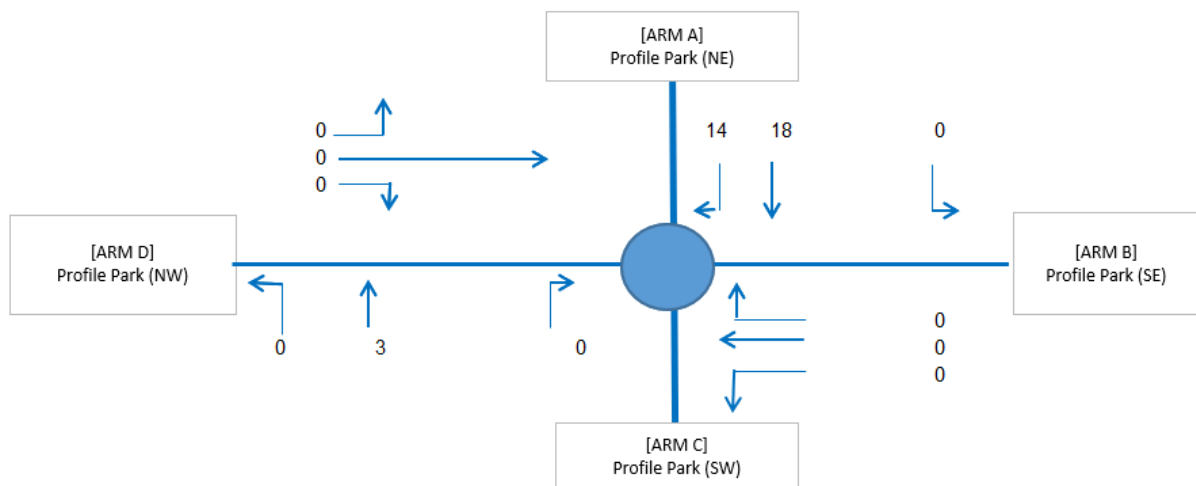


Figure 4.17: Baseflow Plus Generated Traffic 2024 AM Peak - Junction 2

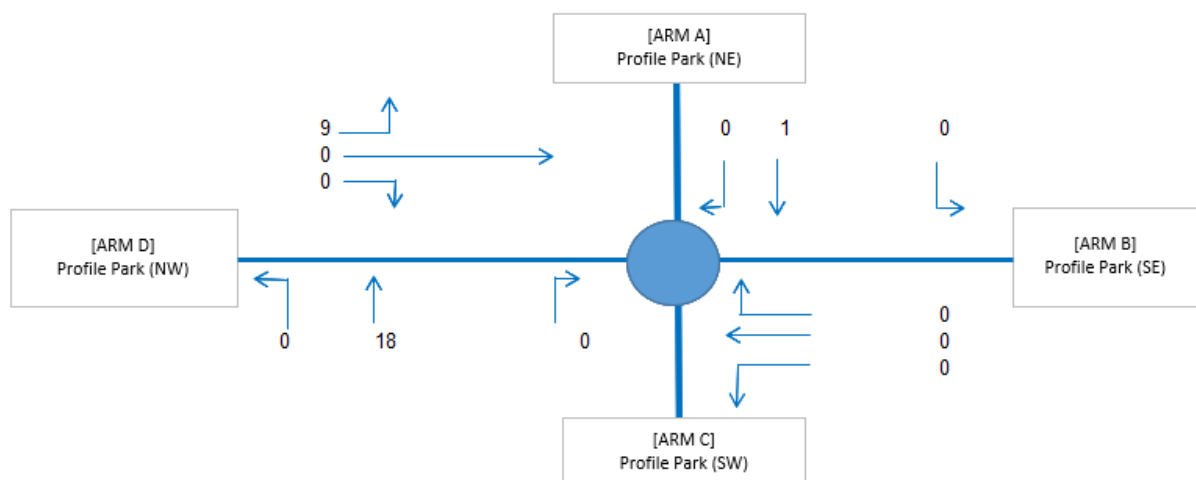


Figure 4.18: Baseflow Plus Generated Traffic 2024 PM Peak - Junction 2

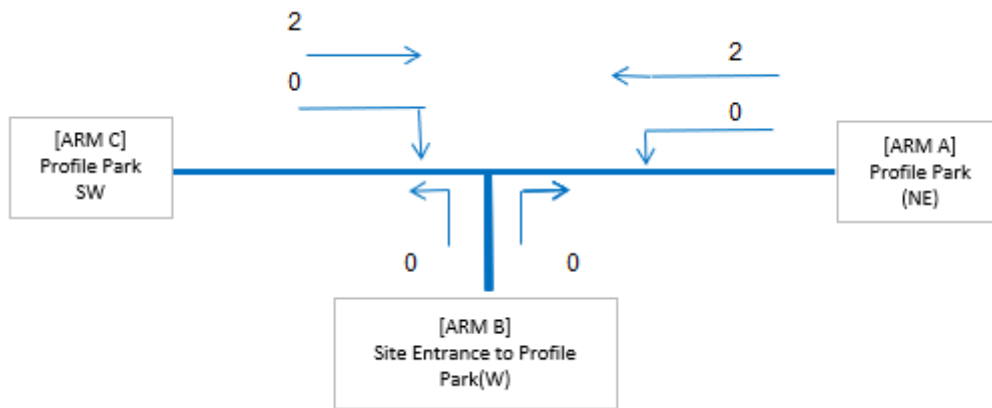


Figure 4.19: Baseflow Traffic 2021 AM Peak – Junction 3

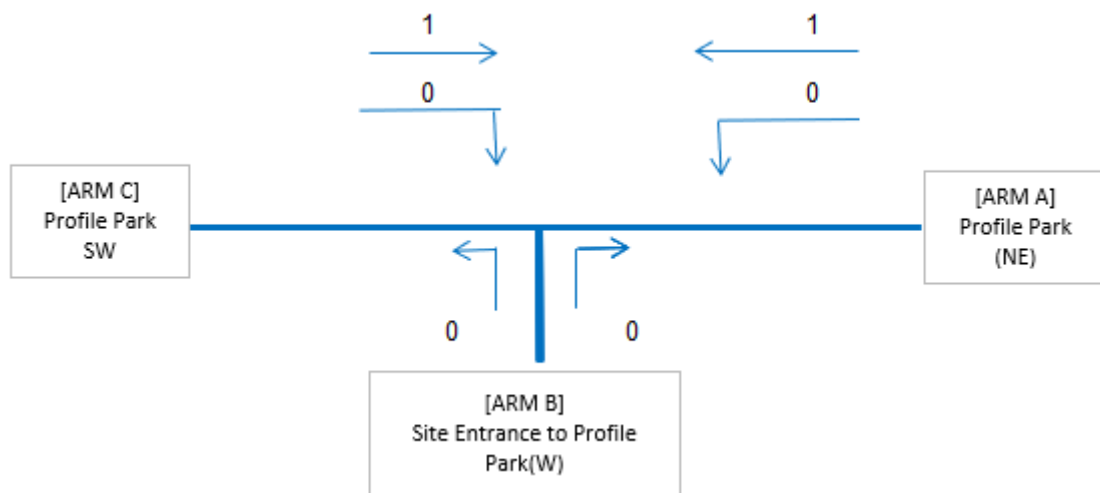


Figure 4.20: Baseflow Traffic 2021 PM Peak – Junction 3

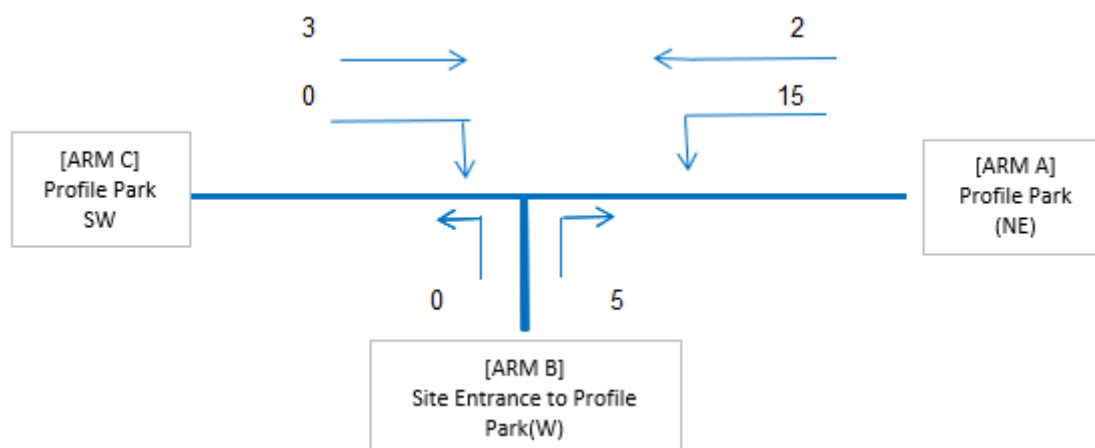


Figure 4.21: Baseflow Plus Generated Traffic 2023 AM Peak – Junction 3

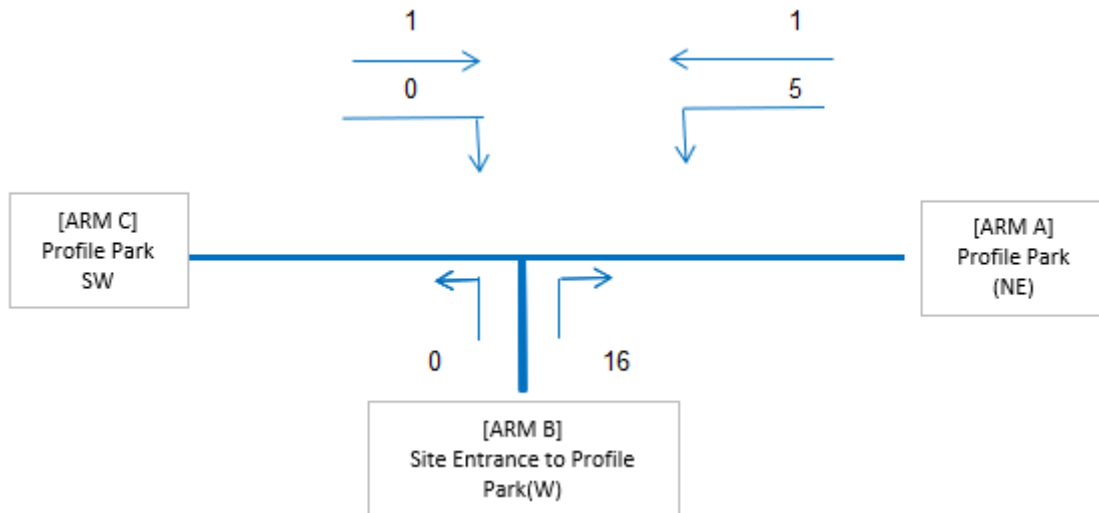


Figure 4.22: Baseflow Plus Generated Traffic 2023 PM Peak – Junction 3

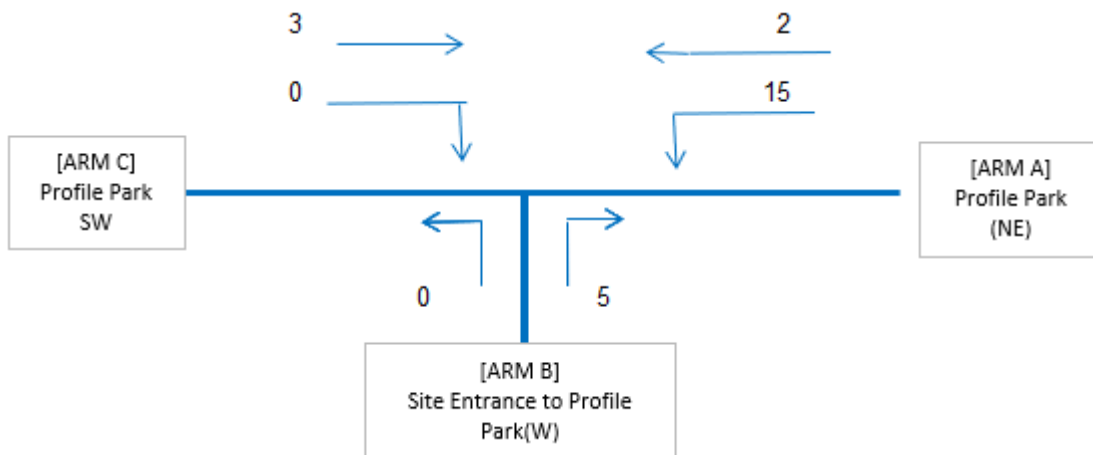


Figure 4.23: Baseflow Plus Generated Traffic 2024 AM Peak – Junction 3

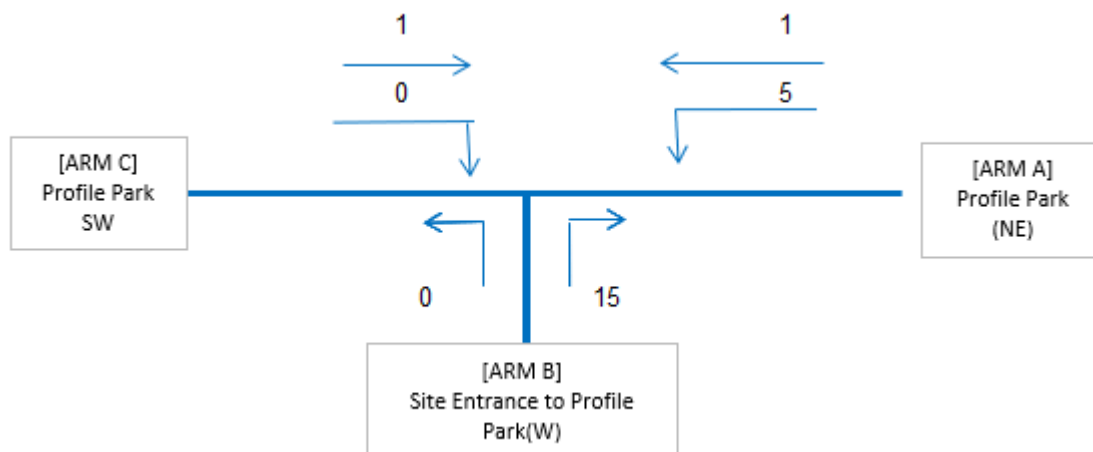


Figure 4.24: Baseflow Plus Generated Traffic 2024 PM Peak – Junction 3

5.0 TRAFFIC IMPACT

5.1 JUNCTION ANALYSIS

5.1.1 INTRODUCTION AND METHODOLOGY

The proposed site access T-junction (Junction 3), the internal Profile Park roundabout junction to the Northeast of the Proposed Site Access (Junction 2) and the R134 New Nangor Road / Kilcarbery Park / Profile Park Roundabout to the northeast of the proposed development (Junction 1) have been analysed using the Transport Research Laboratory (TRL) computer program JUNCTION 9 PICADY and ARCADY, widely accepted tools used for the analysis of priority junctions and roundabouts.

The key parameters examined in the results of the analysis are the Ratio of Flow to Capacity Value (RFC value – desirable value for PICADY and ARCADY should be no greater than 0.85 – values over 1.00 indicate the approach arm is over capacity), the maximum queue length on any approach to the junctions and the average delay for each vehicle passing through the junction during the modelled period.

PICADY and ARCADY requires the following input data:

- Basic modelling parameters (usually peak hour traffic counts synthesised over a 90-minute model period)
- Geometric parameters (including lane numbers & widths, visibility, storage provision etc)
- Traffic demand data (usually peak hour origin/destination table with composition of heavy goods vehicles input*)

*For the purpose of this report, the varying vehicle types have been segregated into light vehicles (LV) and Heavy Vehicles (HV) prior to input. Traffic volumes input into PICADY and ARCADY were in vehicles and, accordingly, commercial vehicle composition was set to the percentage of that arm.

The results of the PICADY and ARCADY analysis are presented in Section 5.1.3. The origin/destination traffic demand tables for all the different scenarios tested for the analysed junctions are provided in Appendix D.

5.1.2 ASSESSMENT TIME AND YEARS

The performance of the junction has been analysed for the critical AM peak and PM peak hours. This analysis was carried out for the year of construction commencing coinciding with peak construction volumes, 2023 and for the completion of the Construction Phase 2025

5.1.3 ANALYSIS RESULTS

5.1.3.1 Junction 1 – R134 New Nangor Road / Kilcarbery Park / Profile Park - Roundabout

A summary of the analysis results for the R134 New Nangor Road / Kilcarbery Park / Profile park Roundabout for the AM and PM peak hours are provided below in Table 5-1. Full outputs from JUNCTION 10 ARCADY are included in Appendix E.

Table 5.1: Junction 1 Results: R134 New Nangor Road / Kilcarbery Park / Profile Park AM & PM Peak Hours

Arm	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
2021 Baseflows								
1 - Kilcarbery Park	0.1	5.16	0.08	5.42	0.1	3.9	0.09	4.31
2 - New Nangor Road (W)	0.8	5.63	0.45		0.5	4.35	0.33	
3 - Profile Park	0	0	0		0	2.56	0.01	
4 - New Nangor Road (E)	0.7	5.21	0.4		0.5	4.42	0.34	
2023 No Construction								
1 - Kilcarbery Park	0.1	5.29	0.09	5.66	0.1	3.96	0.09	4.42
2 - New Nangor Road (W)	0.9	5.91	0.48		0.5	4.45	0.35	
3 - Profile Park	0	0	0		0	2.59	0.01	
4 - New Nangor Road (E)	0.7	5.42	0.42		0.6	4.53	0.36	
2023 With Construction								
1 - Kilcarbery Park	0.1	5.33	0.09	5.78	0.1	4.01	0.09	4.43
2 - New Nangor Road (W)	0.9	6.03	0.48		0.5	4.45	0.35	
3 - Profile Park	0	0	0		0	3.15	0.02	
4 - New Nangor Road (E)	0.8	5.57	0.43		0.6	4.59	0.36	
2024 No Construction								
1 - Kilcarbery Park	0.1	5.36	0.09	5.77	0.1	4.02	0.1	4.48
2 - New Nangor Road (W)	0.9	6.03	0.49		0.6	4.51	0.36	
3 - Profile Park	0	0	0		0	2.6	0.01	
4 - New Nangor Road (E)	0.7	5.52	0.43		0.6	4.59	0.37	
2024 With Construction								
1 - Kilcarbery Park	0.1	5.4	0.09	5.89	0.1	4.07	0.1	4.49
2 - New Nangor Road (W)	1	6.15	0.49		0.6	4.51	0.36	
3 - Profile Park	0	0	0		0	3.17	0.02	
4 - New Nangor Road (E)	0.8	5.68	0.44		0.6	4.66	0.37	

The above results indicate that the R134 New Nangor Road / Kilcarbery Park / Profile Park Roundabout will operate below the maximum desirable 0.85 RFC. The maximum RFC reaching 0.49 in the AM peak with the development. It is also noted the queue length does not exceed 1 vehicle and the maximum increase in delay is 6.03 seconds. Effects at this junction during construction are predicted to be short term, negative and not significant.

5.1.3.2 Junction 2 – Profile Park Internal - Roundabout

A summary of the analysis results for the Internal Profile Park Roundabout for the AM peak and PM peak hours during construction are provided below in Table 5-2. Full outputs from JUNCTION 10 ARCADY are included in Appendix F.

Table 5.2: Junction 2 Results – Internal Profile Park Roundabout AM & PM Peak Hours

Arm	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
2021 Baseflows								
1 - Profile Park (NE) Profile Park (NE)	0	5.23	0.02	5.23	0	0	0	4.84
2 - Profile Park (SE)	0	0	0		0	0	0	
3 - Profile Park (SW)	0	0	0		0	0	0	
4 - Profile Park (NW)	0	0	0		0	4.84	0.01	
2023 No Construction								
1 - Profile Park (NE) Profile Park (NE)	0	5.36	0.03	5.36	0	0	0	4.85
2 - Profile Park (SE)	0	0	0		0	0	0	
3 - Profile Park (SW)	0	0	0		0	0	0	
4 - Profile Park (NW)	0	0	0		0	4.85	0.01	
2023 With Construction								
1 - Profile Park (NE) Profile Park (NE)	0.1	6.1	0.06	6.1	0	0	0	6.03
2 - Profile Park (SE)	0	0	0		0	0	0	
3 - Profile Park (SW)	0	0	0		0	6.48	0.03	
4 - Profile Park (NW)	0	0	0		0	4.92	0.01	
2024 No Construction								
1 - Profile Park (NE) Profile Park (NE)	0	5.36	0.03	5.36	0	0	0	4.85
2 - Profile Park (SE)	0	0	0		0	0	0	
3 - Profile Park (SW)	0	0	0		0	0	0	
4 - Profile Park (NW)	0	0	0		0	4.85	0.01	
2024 With Construction								
1 - Profile Park (NE) Profile Park (NE)	0.1	6.1	0.06	6.1	0	0	0	6.1
2 - Profile Park (SE)	0	0	0		0	0	0	
3 - Profile Park (SW)	0	0	0		0	6.55	0.03	
4 - Profile Park (NW)	0	0	0		0	4.92	0.01	

The above results indicate that the Profile Park Internal Roundabout will operate below the maximum desirable 0.85 RFC. The maximum RFC reaching 0.06 in the AM peak with the development. It is also noted the queue length does not exceed 1 vehicle and the maximum increase in delay is 6.1 seconds. Effects at this junction during construction are predicted to be short term, negative and not significant.

5.1.3.3 Junction 3 – Proposed Site Access - T Junction

A summary of the analysis results for the Proposed Site Access - T Junction for the AM peak and PM peak hours during construction is provided below in Table 5-3. Full outputs from JUNCTION 10 PICADY are included in Appendix G.

Table 5.3: Junction 3 Results – Proposed Site Access – T Junction, AM & PM Peak Hours

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
2021 Baseflows										
Stream B-AC	0	0	0	A	0	0	0	0	A	0
Stream C-AB	0	0	0	A		0	0	0	A	
2023 No Construction										
Stream B-AC	0	0	0	A	0	0	0	0	A	0
Stream C-AB	0	0	0	A		0	0	0	A	
2023 With Construction										
Stream B-AC	0	11.43	0.02	B	3.48	0	7.79	0.04	A	5.15
Stream C-AB	0	0	0	A		0	0	0	A	
2024 No Construction										
Stream B-AC	0	0	0	A	0	0	0	0	A	0
Stream C-AB	0	0	0	A		0	0	0	A	
2024 With Construction										
Stream B-AC	0	11.43	0.02	B	3.48	0	7.71	0.03	A	4.97
Stream C-AB	0	0	0	A		0	0	0	A	

The above results indicate that the Proposed Site Access T-Junction will operate below the maximum desirable 0.85 RFC. The maximum RFC reaching 0.04 in the PM peak with the development. It is also noted the queue length does not exceed 1 vehicle and the maximum increase in delay is 11.43 seconds.

6.0 OTHER ROAD ISSUES

6.1 ROAD SAFETY

Entry to and from the proposed site within profile park does not raise any road safety concerns. Profile Park is well managed with no visibility restrictions and the entrance has been sited 50m away from the roundabout itself in accordance with TII standards with a 50m stagger provided between the proposed development and the next nearest site entry.

An investigation of road collision data from the Road Safety Authority website (source <https://www.rsa.ie/RSA/Road-Safety/RSA-Statistics/Collision-Statistics/Ireland-Road-Collisions/>;) (see Figure 6.1 for map) indicates that there has been no serious collisions and seven minor collisions recorded in the vicinity between 2005 and 2016.

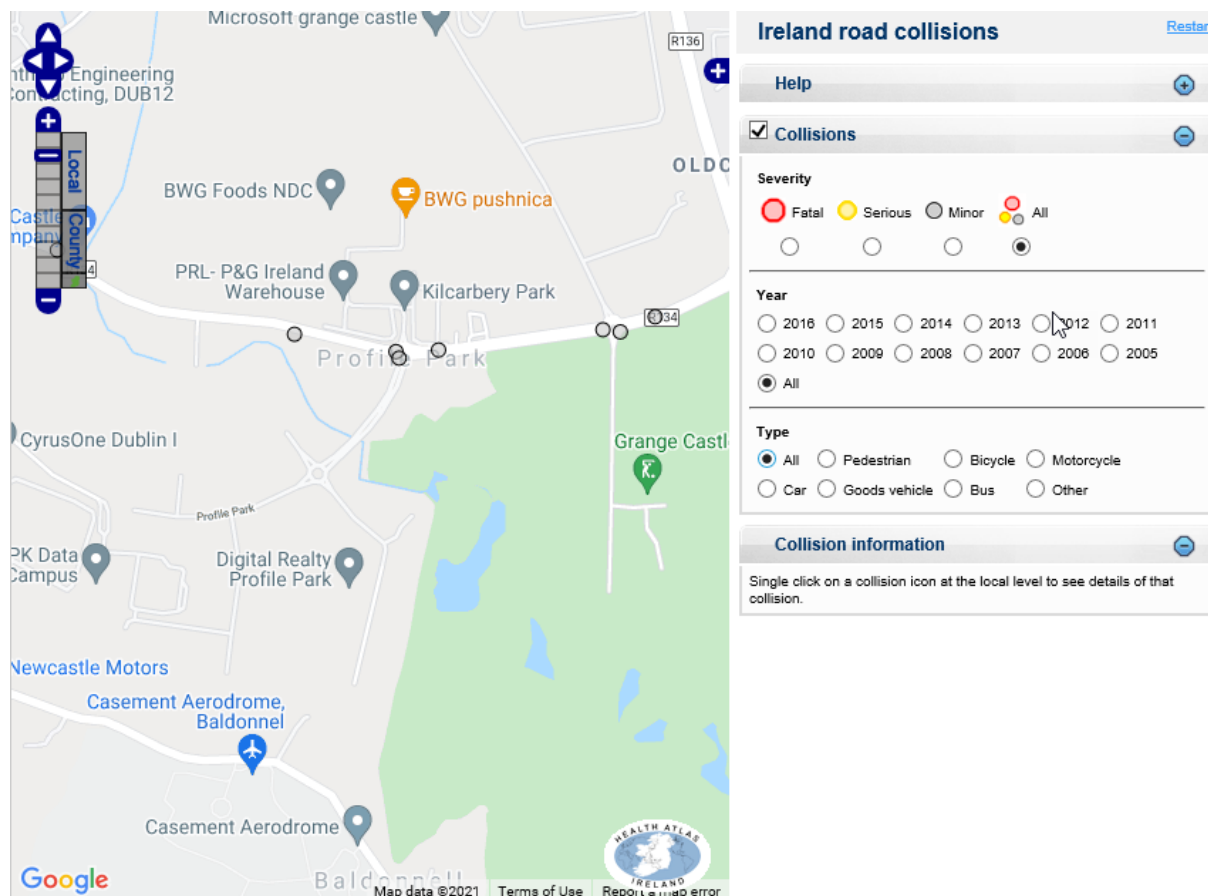


Figure 6.1: RSA Irish Road Collision Statistics

7.0 MOBILITY MANAGEMENT

7.1 PEDESTRIANS & CYCLISTS

Segregated Pedestrian and Cycle access routes are provided in the Profile Park development and along the R134 providing the main access route into Profile Park.

7.2 PUBLIC TRANSPORT

Dublin bus 68/a runs at regular intervals along the R134.

7.3 ACCESS FOR PEOPLE WITH DISABILITIES

As recommended dropped kerbing and tactile paving slabs will be installed at all crossing points, in accordance with “Guidance on the Use of Tactile Paving Slabs”.

It is further recommended that disabled parking spaces, in accordance with the South Dublin Development Plan, be provided and located in accordance with the National Disability Authorities “Building for Everyone”. 5% of the proposed parking provisions have been designated for disabled parking as per Building for Everyone.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

The junction assessments indicate that none of the junctions assessed are currently exceeding desirable capacity of 0.85. This will remain the case during the construction period. The maximum RFC of 0.49 was shown at the New Nangor Road / R134 Roundabout Junction of those assessed with a maximum RFC of 0.06 on the internal Profile Park Roundabout and 0.04 at the entrance to the proposed development. There will therefore be no significant residual effects associated with the construction, operational or decommissioning phases of the project.

The development is located in close proximity to public transport links on the R134 and the business park has well developed offline pedestrian and cycle facilities.

8.2 RECOMMENDATIONS

This report recommends that:

- Site access junction visibility splays should be kept free of all restrictions including signage.
- Pedestrian footway links with associated dropped kerbing and tactile paving to be provided at all pedestrian crossing points internally in the site

Appendix A. Scoping Document

Appendix B. Origin / Destination Matrices

Appendix C. JUNCTION 10 ARCADY Detailed Output - Junction 1

Appendix D. JUNCTION 10 ARCADY Detailed Output - Junction 2

Appendix E. JUNCTION 10 PICADY Detailed Output - Junction 3 (Site Entrance)

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SCOPING STUDY FOR: Profile Park Power 110kV electrical substation, Kilcarbery, Dublin 22

CLIENT: Greener Ideas Ltd

LOCAL AUTHORITY: South Dublin County Council

SCOPING FORM SENT TO: Mr. John Joe Hegarty, Senior Executive Engineer, South Dublin County Council

SENT BY: Gabriela Iha **DATE:** 17.02.2023

Ref	Item	Requirements
1	Location, size, operating hours and nature of proposed description of proposal	<p>The proposed 110kV electrical substation and associated grid connection are being developed to provide a connection from the adjacent peaking power plant (Reg. Ref.:SD21A/0167) to the existing electricity transmission system.</p> <p>It is envisaged that the Construction element will create the greatest traffic flows of up to 10 passenger vehicles and 5 hgvs arriving per day in the morning peak and 10 passenger vehicles and 5 hgvs leaving in the evening peak</p>
2	Is the development in line with National, County and Local Area Plan policy?	Yes – Industrial, enterprise & employment
3	Description of existing uses of land	Greenfield Site
4	Does the development involve the relocation of an existing use?	No
5	Is a new or modified highway access likely?	No. Access to the site has already been preconstructed within the Profile Park Business Campus
6	What existing / proposed provisions are there for Pedestrians, Cyclists, Public Transport, Disabled access, set down, loading areas? (Rational for no. of provisions)	Segregated Pedestrian and Cycle access routes are provided in the Profile Park development and along the R134 providing the main access route into Profile Park
7	What background data / information available? (i.e. staffing number, weighbridge data etc)	Previous Traffic Counts taken for the power plant application (Reg. Ref.: SD21A/0167)
8	Are traffic surveys of the existing conditions available or required?	Reg. Ref.:SD21A/0167 traffic data – IDASO data available on the R134 New Nangor Road
9	What will be the area of impact of the proposal, i.e. which adjacent local regional and National Road routes and junctions will	<ul style="list-style-type: none"> Junction 1: R134/profile Park/Kilcarbery Park (Roundabout);

Ref	Item	Requirements
	be affected and require capacity calculations?	<ul style="list-style-type: none"> Junction 2: Internal Roundabout Profile Park
10	Are trip distribution and assignment models to be used? or Existing trip distribution?	Match existing distributions
11	Are additional traffic scenarios to be assessed? (e.g. rat running, stress tests etc)	No
12	What will be the trip generation for the proposals? (e.g. pro rata, TRICS, other)	Client Provided Information for Construction and Operation Phase
13	Are further traffic generation surveys required? (i.e. if traffic surveys to develop pro rata rates etc)	No
14	What seasonal adjustment is to be undertaken?	COVID-19 Adjustment to surveyed traffic volumes
15	Link based Growth Rates? (Low Sensitivity, Central, High Sensitivity)	TII Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections
16	When are the critical time periods for assessment? (i.e. AM, PM and Noon peak hours)	AM PM Peaks
17	When will the site become fully operational?	Construction to commence 2023 and finalise in 2024
18	What are the assessment years? (Base, opening & future (+5 years & +15 years of operation or any additional)	<p>Construction 2023-2024 Opening 2024</p> <p>Based on negligible impacts for operational traffic volumes (less than 5 pcu movements per day)</p>
19	Are there significant phases to the project?	The Construction Phase is estimated to produce the most significant traffic demand. It is envisaged that the Construction element will create traffic flows of up to 10 passenger vehicles and 5 hgvs arriving per day in the morning peak 8:00-9:00 and 10 passenger vehicles and 5 hgvs leaving in the evening peak 18:00-19:00.
20	Will the site attract traffic from the other adjacent sites? (Pass-by Traffic)	No
21	Are there any significant committed developments? (Granted Planning within the past 5 years and not commenced)	<p>Developments within Profile Park Inc. Construction of a Distribution Warehouse</p> <p>Developments within Grange Castle Business Park South over the next 10years inc 3 2-storey data centres</p> <p>Profile Park Power Plant</p>

Ref	Item	Requirements
22	Details of any adjacent highway improvement proposals?	n/a
23	What capacity tests / traffic modelling software is to be used? (i.e. JUNCTION 9: PICADY/ ARCADY & OSCADY PRO)	ARCADY & PICADY
24	Will adjacent links become overloaded or significantly impacted? (Design Standards: Urban – UK DMRB TA 79/99 or Rural – TII DN-GEO-03031 (formerly TD9/12) Table 6/1 or alternative Rural to RT 180 when single carriageway width is less than 6.0m)	TBC
25	What are the sightlines / visibility splays requirements? Are they available? (DMURS, TII DNO-GEO-0343, Development Plan etc)	Site Access shall use the same site access approved by SDCC (Reg. Ref.:SD21A/0167) - Profile Park alignment appears to be have been designed and constructed to TII standards also with good visibility splays and siting distances between junctions and accesses
26	Are there ways to reduce car dependency? Is a workplace travel plan / statement required? (formerly mobility management plans)	Public Transport and Cycling links are present. None will be required given operational staff levels of less than 5 persons per day
27	What are the targets for mode share and how are they achieved?	TBC
28	What level of car parking provision is proposed? To what standard? (included disabled parking provisions)	TBC
29	Are special provisions required for cyclists? To what standard?	Site and surrounds are served with offline cycle facilities
30	Are special provisions required for pedestrians or disabled facilities? To what standard?	Site and Surrounds are served with fully accessible pedestrian and vulnerable road user facilities
31	Proposals (if necessary) for public transport facilities?	None additional proposed
32	Will the proposals have an impact on road safety?	N/A
33	Is a Road Safety Impact Assessment or Road Safety Audit required?	No, access to site has been previously developed
34	What Stage RSA?	N/A
35	Are there any other special circumstances relevant to this proposal?	N/A

Traffic Calculations for Profile Park
Site 1 - R134 New Nangor Road - Kilcarbery Park - Profile Park Roundabout
At Present AM Peak (08:30 - 09:30)

COVID Adjusted 2021

<u>Base Year</u>	2021
Year of Construction Commencing	2023
Year of Construction Completion	2024

2023 - Year of Construction Commencing

<u>DUBLIN</u>	<u>LGV</u>	<u>HGV</u>
<u>2016-2030</u>	1.0211	1.0348
Years	2	2
<u>Growth Factor</u>	1.043	1.071

2024 Year of Construction Completion

<u>DUBLIN</u>	<u>LGV</u>	<u>HGV</u>
<u>2016-2030</u>	1.0211	1.0348
Years	3	3
<u>Growth Factor</u>	1.065	1.108

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	23	28	1	0	0	2
B	79	27	0	0	11	1	318	47
C	0	0	0	0	0	0	2	0
D	23	5	345	41	2	0	0	0

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	24	30	1	0	0	3
B	82	29	0	0	11	1	332	51
C	0	0	0	0	0	0	3	0
D	24	5	360	44	3	0	0	0

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	24	31	1	0	0	3
B	84	29	0	0	12	1	339	52
C	0	0	0	0	0	0	3	0
D	24	5	367	46	3	0	0	0

AM PEAK GENERATED TRAFFIC

Site 1 - R134 New Nangor Road - Kilcarbery Park - Profile Park Roundabout
WITH DEVELOPMENT

Generated Traffic at Peak 1 month Into Construction (Import of Material)

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	1	0	0	0
B	0	0	0	0	2	1	0	0
C	0	0	0	0	0	0	0	0
D	0	0	0	0	8	4	0	0

2023 - Year of Construction Commencing

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	24	30	2	0	0	3
B	82	29	0	0	13	2	332	51
C	0	0	0	0	0	0	3	0
D	24	5	360	44	10	4	0	0

Traffic Calculations for Profile Park
Site 1 - R134 New Nangor Road - Kilcarbery Park - Profile Park Roundabout
At Present PM Peak (17:00 - 18:00)

COVID Adjusted 2021

Base Year **2021**
 Construction Commencing 2023
 Construction Completion 2024

2023 - Year of Construction Commencing

DUBLIN
2016-2030 Years 2 2
 LGV 1.0211 1.0348
 HGTV 1.0348 1.0348
Growth Factor 1.043 1.071

2024 Year of Construction Completion

DUBLIN
2016-2030 Years 3 3
 LGV 1.0211 1.0348
 HGTV 1.0348 1.0348
Growth Factor 1.065 1.108

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	53	13	0	0	13	1
B	15	7	4	0	1	0	325	23
C	0	0	5	0	0	0	5	0
D	4	7	352	21	0	0	1	0

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	56	14	0	0	14	1
B	15	8	4	0	1	0	339	25
C	0	0	5	0	0	0	5	0
D	4	8	367	22	0	0	1	0

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	57	15	0	0	14	1
B	15	8	4	0	1	0	347	25
C	0	0	5	0	0	0	5	0
D	4	8	375	23	0	0	1	0

AM PEAK GENERATED TRAFFIC

Site 1 - R134 New Nangor Road - Kilcarbery Park - Profile Park Roundabout
WITH DEVELOPMENT

Generated Traffic at Peak 1 month Into Construction (Import of Material)

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0
C	0	0	10	5	0	0	0	0
D	0	0	0	0	0	0	0	0

2023 - Year of Construction Commencing

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	56	14	0	0	14	1
B	15	8	4	0	1	0	339	25
C	0	0	15	5	0	0	5	0
D	4	8	367	22	0	0	1	0

Traffic Calculations for Profile Park
Site 2 - Profile Park Internal Roundabout
At Present PM Peak(16:15 - 17:15)

COVID Adjusted 2021

Base Year **2021**
 Construction Commencing 2023
 Construction Completion 2024

2023 - Year of Construction Commencing

DUBLIN
2016-2030 LGV 1.0211 HG 1.0348
 Years 2 2
Growth Factor 1.043 1.071

2024 Year of Construction Completion

DUBLIN LGV 1.0211 HG 1.0348
2016-2030 Years 3 3
Growth Factor 1.065 1.108

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	1	0	0	0
B	0	0	0	0	0	0	0	0
C	1	0	0	0	0	0	0	0
D	5	0	0	0	0	0	0	0

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	1	0	0	0
B	0	0	0	0	0	0	0	0
C	1	0	0	0	0	0	0	0
D	9	0	0	0	0	0	0	0

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	1	0	0	0
B	0	0	0	0	0	0	0	0
C	1	0	0	0	0	0	0	0
D	9	0	0	0	0	0	0	0

AM PEAK GENERATED TRAFFIC
Site 2 - Profile Park Internal Roundabout
WITH DEVELOPMENT

Generated Traffic at Peak 1 month into Construction (Import of Material)

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0
C	10	5	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0

2023 - Year of Construction Commencing

Route	A	HGV	B	HGV	C	HGV	D	HGV
A	0	0	0	0	1	0	0	0
B	0	0	0	0	0	0	0	0
C	12	5	0	0	0	0	0	0
D	9	0	0	0	0	0	0	0

Traffic Calculations for Profile Park
Site 3 - Profile Park Access to Site
At Present AM Peak (08:30 - 09:30)

COVID Adjusted 2021

Base Year **2021**
 Construction Commencing 2023
 Construction Completion 2024

2023 - Year of Construction Commencing

DUBLIN
2016-2030 LGV HGV
 1.0211 1.0348
 Years 2 2
Growth Factor 1.043 1.071

2024 Year of Construction Completion

DUBLIN LGV HGV
2016-2030 1.0211 1.0348
 Years 3 3
Growth Factor 1.065 1.108

Route	A	HGV	B	HGV	C	HGV
A	0	0	0	0	1	1
B	0	0	0	0	0	0
C	2	0	0	0	0	0

Route	A	HGV	B	HGV	C	HGV
A	0	0	0	0	1	1
B	0	0	0	0	0	0
C	3	0	0	0	0	0

Route	A	HGV	B	HGV	C	HGV
A	0	0	0	0	1	1
B	0	0	0	0	0	0
C	3	0	0	0	0	0

AM PEAK GENERATED TRAFFIC
Site 3 - Profile Park Access to Site
WITH DEVELOPMENT.

Generated Traffic at Peak 1 month into Construction (Import of Material)

Route	A	HGV	B	HGV	C	HGV
A	0	0	10	5	0	0
B	0	5	0	0	0	0
C	0	0	0	0	0	0

2023 - Year of Construction Commencing

Route	A	HGV	B	HGV	C	HGV
A	0	0	10	5	1	1
B	0	5	0	0	0	0
C	3	0	0	0	0	0

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

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Filename: Junction 1 Substation.j10

Path: W:\Projects\11069 - Centrica - Profile Park Power Plant\05-Design\01-Calculations\Traffic\Substation

Report generation date: 13/02/2023 09:35:06

-
- »2021 Baseflows , AM
 - »2021 Baseflows , PM
 - »2023 No Construction, AM
 - »2023 No Construction, PM
 - »2023 With Construction, AM
 - »2023 With Construction, PM
 - »2024 No Construction , AM
 - »2024 No Construction, PM
 - »2024 With Construction , AM
 - »2024 With Construction, PM

Summary of junction performance

	AM						PM					
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
2021 Baseflows												
1 - Kilcarbery Park	0.1	0.5	5.16	0.08	A	5.42	0.1	0.5	3.90	0.09	A	4.31
2 - New Nangor Road (W)	0.8	2.1	5.63	0.45	A		0.5	2.3	4.35	0.33	A	
3 - Profile Park	0.0	-1	0.00	0.00	A		0.0	0.5	2.56	0.01	A	
4 - New Nangor Road (E)	0.7	2.7	5.21	0.40	A		0.5	2.4	4.42	0.34	A	
2023 No Construction												
1 - Kilcarbery Park	0.1	0.5	5.29	0.09	A	5.66	0.1	0.5	3.96	0.09	A	4.42
2 - New Nangor Road (W)	0.9	1.8	5.91	0.48	A		0.5	2.5	4.45	0.35	A	
3 - Profile Park	0.0	-1	0.00	0.00	A		0.0	0.5	2.59	0.01	A	
4 - New Nangor Road (E)	0.7	2.6	5.42	0.42	A		0.6	2.6	4.53	0.36	A	
2023 With Construction												
1 - Kilcarbery Park	0.1	0.5	5.33	0.09	A	5.78	0.1	0.5	4.01	0.09	A	4.43
2 - New Nangor Road (W)	0.9	1.8	6.03	0.48	A		0.5	2.5	4.45	0.35	A	
3 - Profile Park	0.0	-1	0.00	0.00	A		0.0	0.5	3.15	0.02	A	
4 - New Nangor Road (E)	0.8	2.5	5.57	0.43	A		0.6	2.6	4.59	0.36	A	
2024 No Construction												
1 - Kilcarbery Park	0.1	0.5	5.36	0.09	A	5.77	0.1	0.5	4.02	0.10	A	4.48
2 - New Nangor Road (W)	0.9	1.7	6.03	0.49	A		0.6	2.5	4.51	0.36	A	
3 - Profile Park	0.0	-1	0.00	0.00	A		0.0	0.5	2.60	0.01	A	
4 - New Nangor Road (E)	0.7	2.5	5.52	0.43	A		0.6	2.6	4.59	0.37	A	
2024 With Construction												
1 - Kilcarbery Park	0.1	0.5	5.40	0.09	A	5.89	0.1	0.5	4.07	0.10	A	4.49
2 - New Nangor Road (W)	1.0	1.7	6.15	0.49	A		0.6	2.5	4.51	0.36	A	
3 - Profile Park	0.0	-1	0.00	0.00	A		0.0	0.5	3.17	0.02	A	
4 - New Nangor Road (E)	0.8	2.4	5.68	0.44	A		0.6	2.6	4.66	0.37	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. Junction LOS and Junction Delay are demand-weighted averages.

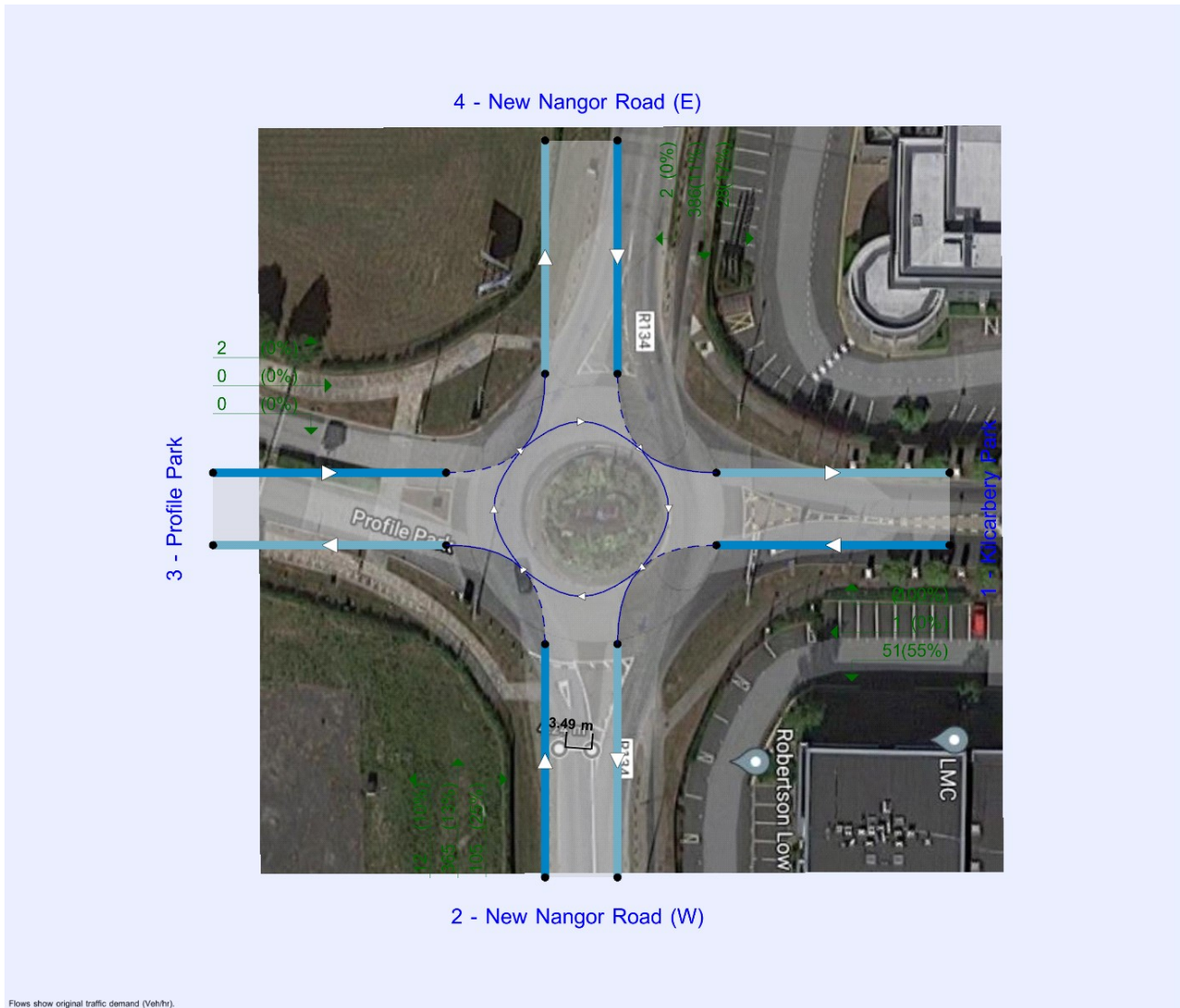
File summary

File Description

Title	Junction 1
Location	Grange Castle
Site number	
Date	30/04/2021
Version	
Status	(new file)
Identifier	
Client	11069
Jobnumber	
Enumerator	TOBIN\Maria Rooney
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseflows	AM	ONE HOUR	08:15	09:45	15	✓
D2	2021 Baseflows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 No Construction	AM	ONE HOUR	08:15	09:45	15	✓
D4	2023 No Construction	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 With Construction	AM	ONE HOUR	08:15	09:45	15	✓
D6	2023 With Construction	PM	ONE HOUR	16:00	17:30	15	✓
D7	2024 No Construction	AM	ONE HOUR	08:15	09:45	15	✓
D8	2024 No Construction	PM	ONE HOUR	16:00	17:30	15	✓
D9	2024 With Construction	AM	ONE HOUR	08:15	09:45	15	✓
D10	2024 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Baseflows , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.42	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Kilcarbery Park		
2	New Nangor Road (W)		
3	Profile Park		
4	New Nangor Road (E)		

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)	Entry only	Exit only
1 - Kilcarbery Park	5.06	5.98	9.1	3.0	13.0	0.0		
2 - New Nangor Road (W)	4.64	5.60	12.5	3.0	13.0	0.0		
3 - Profile Park	6.20	7.12	5.2	3.0	13.0	0.0		
4 - New Nangor Road (E)	4.85	7.02	2.5	3.0	13.0	0.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Kilcarbery Park	0.559	1442
2 - New Nangor Road (W)	0.541	1356
3 - Profile Park	0.612	1700
4 - New Nangor Road (E)	0.541	1358

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)	Run automatically
D1	2021 Baseflows	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	54	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	482	100.000
3 - Profile Park		ONE HOUR	✓	2	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	416	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	51	1	2
	2 - New Nangor Road (W)	105	0	12	365
	3 - Profile Park	0	0	0	2
	4 - New Nangor Road (E)	28	386	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	55	0	100
	2 - New Nangor Road (W)	25	0	10	13
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	17	11	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.08	5.16	0.1	0.5	A	50	74
2 - New Nangor Road (W)	0.45	5.63	0.8	2.1	A	442	663
3 - Profile Park	0.00	0.00	0.0	~1	A	0	0
4 - New Nangor Road (E)	0.40	5.21	0.7	2.7	A	382	573

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	41	10	291	811	0.050	40	100	0.0	0.1	4.671	A
2 - New Nangor Road (W)	363	91	4	1171	0.310	361	327	0.0	0.4	4.435	A
3 - Profile Park	0	0	354	1449	0.000	0	11	0.0	0.0	0.000	A
4 - New Nangor Road (E)	313	78	79	1171	0.267	312	275	0.0	0.4	4.181	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	49	12	348	788	0.062	48	119	0.1	0.1	4.868	A
2 - New Nangor Road (W)	433	108	4	1170	0.370	433	392	0.4	0.6	4.877	A
3 - Profile Park	0	0	424	1399	0.000	0	13	0.0	0.0	0.000	A
4 - New Nangor Road (E)	374	93	94	1162	0.322	374	330	0.4	0.5	4.564	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	59	15	427	757	0.079	59	146	0.1	0.1	5.161	A
2 - New Nangor Road (W)	531	133	5	1170	0.454	530	480	0.6	0.8	5.617	A
3 - Profile Park	0	0	519	1332	0.000	0	16	0.0	0.0	0.000	A
4 - New Nangor Road (E)	458	115	115	1149	0.399	457	403	0.5	0.7	5.198	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	59	15	427	757	0.079	59	146	0.1	0.1	5.164	A
2 - New Nangor Road (W)	531	133	6	1170	0.454	531	481	0.8	0.8	5.632	A
3 - Profile Park	0	0	520	1331	0.000	0	17	0.0	0.0	0.000	A
4 - New Nangor Road (E)	458	115	116	1149	0.399	458	404	0.7	0.7	5.209	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	49	12	349	787	0.062	49	120	0.1	0.1	4.872	A
2 - New Nangor Road (W)	433	108	5	1170	0.370	434	394	0.8	0.6	4.897	A
3 - Profile Park	0	0	425	1398	0.000	0	14	0.0	0.0	0.000	A
4 - New Nangor Road (E)	374	93	95	1162	0.322	375	331	0.7	0.5	4.579	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	41	10	293	810	0.050	41	100	0.1	0.1	4.680	A
2 - New Nangor Road (W)	363	91	4	1171	0.310	363	329	0.6	0.5	4.461	A
3 - Profile Park	0	0	356	1448	0.000	0	11	0.0	0.0	0.000	A
4 - New Nangor Road (E)	313	78	79	1171	0.267	314	277	0.5	0.4	4.202	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - New Nangor Road (W)	0.45	0.00	0.00	0.45	0.45			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.36	0.00	0.00	0.36	0.36			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.58	0.11	0.86	1.37	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.47	0.00	0.00	0.47	0.47			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.82	0.03	0.26	0.82	0.82			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.66	0.03	0.25	0.66	0.66			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - New Nangor Road (W)	0.83	0.03	0.27	0.83	2.08			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.66	0.03	0.28	0.91	2.66			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.59	0.55	1.00	1.40	1.45			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.48	0.00	0.00	0.48	0.48			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - New Nangor Road (W)	0.45	0.00	0.00	0.45	0.45			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.37	0.00	0.00	0.37	0.37			N/A	N/A

2021 Baseflows , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.31	A

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)	Run automatically
D2	2021 Baseflows	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	82	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	375	100.000
3 - Profile Park		ONE HOUR	✓	10	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	67	0	15
	2 - New Nangor Road (W)	22	4	1	348
	3 - Profile Park	0	5	0	5
	4 - New Nangor Road (E)	11	373	0	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	20	0	8
	2 - New Nangor Road (W)	33	0	0	7
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	67	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	3.90	0.1	0.5	A	75	113
2 - New Nangor Road (W)	0.33	4.35	0.5	2.3	A	344	516
3 - Profile Park	0.01	2.56	0.0	0.5	A	9	14
4 - New Nangor Road (E)	0.34	4.42	0.5	2.4	A	353	530

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	62	15	287	1080	0.057	61	25	0.0	0.1	3.533	A
2 - New Nangor Road (W)	282	71	12	1244	0.227	281	337	0.0	0.3	3.734	A
3 - Profile Park	8	2	292	1506	0.005	8	0.75	0.0	0.0	2.401	A
4 - New Nangor Road (E)	290	72	23	1246	0.233	289	277	0.0	0.3	3.756	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	74	18	344	1052	0.070	74	30	0.1	0.1	3.680	A
2 - New Nangor Road (W)	337	84	14	1243	0.271	337	403	0.3	0.4	3.974	A
3 - Profile Park	9	2	350	1468	0.006	9	0.90	0.0	0.0	2.467	A
4 - New Nangor Road (E)	346	87	28	1243	0.278	346	331	0.3	0.4	4.012	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	90	23	421	1013	0.089	90	36	0.1	0.1	3.901	A
2 - New Nangor Road (W)	413	103	18	1241	0.333	412	494	0.4	0.5	4.342	A
3 - Profile Park	11	3	429	1416	0.008	11	1	0.0	0.0	2.562	A
4 - New Nangor Road (E)	424	106	34	1239	0.342	423	406	0.4	0.5	4.410	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	90	23	422	1013	0.089	90	36	0.1	0.1	3.902	A
2 - New Nangor Road (W)	413	103	18	1241	0.333	413	494	0.5	0.5	4.347	A
3 - Profile Park	11	3	429	1415	0.008	11	1	0.0	0.0	2.562	A
4 - New Nangor Road (E)	424	106	34	1239	0.342	424	406	0.5	0.5	4.416	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	74	18	345	1051	0.070	74	30	0.1	0.1	3.685	A
2 - New Nangor Road (W)	337	84	14	1243	0.271	338	404	0.5	0.4	3.981	A
3 - Profile Park	9	2	351	1467	0.006	9	0.90	0.0	0.0	2.468	A
4 - New Nangor Road (E)	346	87	28	1243	0.278	347	332	0.5	0.4	4.020	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	62	15	289	1079	0.057	62	25	0.1	0.1	3.537	A
2 - New Nangor Road (W)	282	71	12	1244	0.227	283	338	0.4	0.3	3.748	A
3 - Profile Park	8	2	294	1505	0.005	8	0.75	0.0	0.0	2.405	A
4 - New Nangor Road (E)	290	72	23	1246	0.233	290	278	0.4	0.3	3.770	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.29	0.00	0.00	0.29	0.29			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.30	0.00	0.00	0.30	0.30			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
3 - Profile Park	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - New Nangor Road (E)	0.38	0.00	0.00	0.38	0.38			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.50	0.03	0.25	0.50	0.50			N/A	N/A
3 - Profile Park	0.01	0.01	0.25	0.46	0.48			N/A	N/A
4 - New Nangor Road (E)	0.52	0.03	0.25	0.52	0.52			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - New Nangor Road (W)	0.50	0.03	0.30	1.34	2.25			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.52	0.03	0.30	1.32	2.40			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - New Nangor Road (W)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.39	0.00	0.00	0.39	0.39			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.30	0.00	0.00	0.30	0.30			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.30	0.00	0.00	0.30	0.30			N/A	N/A

2023 No Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	5.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.66	A

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)	Run automatically
D3	2023 No Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	58	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	506	100.000
3 - Profile Park		ONE HOUR	✓	3	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	436	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	54	1	3
	2 - New Nangor Road (W)	111	0	13	382
	3 - Profile Park	0	0	0	3
	4 - New Nangor Road (E)	29	404	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	55	0	100
	2 - New Nangor Road (W)	26	0	10	13
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	18	11	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	5.29	0.1	0.5	A	53	80
2 - New Nangor Road (W)	0.48	5.91	0.9	1.8	A	464	696
3 - Profile Park	0.00	0.00	0.0	~1	A	0	0
4 - New Nangor Road (E)	0.42	5.42	0.7	2.6	A	400	600

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	44	11	305	801	0.054	43	105	0.0	0.1	4.748	A
2 - New Nangor Road (W)	381	95	5	1167	0.326	379	343	0.0	0.5	4.555	A
3 - Profile Park	0	0	372	1436	0.000	0	13	0.0	0.0	0.000	A
4 - New Nangor Road (E)	328	82	83	1168	0.281	327	288	0.0	0.4	4.272	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	52	13	365	777	0.067	52	126	0.1	0.1	4.962	A
2 - New Nangor Road (W)	455	114	6	1167	0.390	454	411	0.5	0.6	5.048	A
3 - Profile Park	0	0	445	1383	0.000	0	15	0.0	0.0	0.000	A
4 - New Nangor Road (E)	392	98	100	1158	0.339	391	346	0.4	0.5	4.695	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	64	16	447	745	0.086	64	154	0.1	0.1	5.284	A
2 - New Nangor Road (W)	557	139	8	1166	0.478	556	503	0.6	0.9	5.892	A
3 - Profile Park	0	0	545	1312	0.000	0	19	0.0	0.0	0.000	A
4 - New Nangor Road (E)	480	120	122	1144	0.420	479	423	0.5	0.7	5.408	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	64	16	448	745	0.086	64	154	0.1	0.1	5.286	A
2 - New Nangor Road (W)	557	139	8	1166	0.478	557	504	0.9	0.9	5.913	A
3 - Profile Park	0	0	546	1311	0.000	0	19	0.0	0.0	0.000	A
4 - New Nangor Road (E)	480	120	122	1144	0.420	480	424	0.7	0.7	5.421	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	52	13	367	777	0.067	52	126	0.1	0.1	4.967	A
2 - New Nangor Road (W)	455	114	6	1167	0.390	456	413	0.9	0.6	5.071	A
3 - Profile Park	0	0	447	1382	0.000	0	15	0.0	0.0	0.000	A
4 - New Nangor Road (E)	392	98	100	1158	0.339	393	347	0.7	0.5	4.712	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	44	11	307	801	0.055	44	106	0.1	0.1	4.757	A
2 - New Nangor Road (W)	381	95	5	1167	0.326	382	345	0.6	0.5	4.584	A
3 - Profile Park	0	0	374	1434	0.000	0	13	0.0	0.0	0.000	A
4 - New Nangor Road (E)	328	82	84	1168	0.281	329	290	0.5	0.4	4.294	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.48	0.00	0.00	0.48	0.48			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.39	0.00	0.00	0.39	0.39			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.63	0.13	0.88	1.38	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.51	0.51	1.00	1.40	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.09	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.90	0.03	0.26	0.90	0.90			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.72	0.03	0.25	0.72	0.72			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - New Nangor Road (W)	0.91	0.03	0.27	0.91	1.81			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.72	0.03	0.28	0.72	2.57			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.64	0.22	0.94	1.39	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.52	0.52	1.00	1.40	1.45			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.49	0.04	0.44	1.27	1.38			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.39	0.00	0.00	0.39	0.39			N/A	N/A

2023 No Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.42	A

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)	Run automatically
D4	2023 No Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	85	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	392	100.000
3 - Profile Park		ONE HOUR	✓	10	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	402	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	70	0	15
	2 - New Nangor Road (W)	23	4	1	364
	3 - Profile Park	0	5	0	5
	4 - New Nangor Road (E)	12	389	0	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	20	0	9
	2 - New Nangor Road (W)	34	0	0	7
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	67	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	3.96	0.1	0.5	A	78	117
2 - New Nangor Road (W)	0.35	4.45	0.5	2.5	A	360	540
3 - Profile Park	0.01	2.59	0.0	0.5	A	9	14
4 - New Nangor Road (E)	0.36	4.53	0.6	2.6	A	369	553

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	64	16	299	1072	0.060	64	26	0.0	0.1	3.571	A
2 - New Nangor Road (W)	295	74	12	1243	0.237	294	351	0.0	0.3	3.787	A
3 - Profile Park	8	2	305	1498	0.005	8	0.75	0.0	0.0	2.415	A
4 - New Nangor Road (E)	303	76	24	1244	0.243	301	289	0.0	0.3	3.813	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	76	19	358	1042	0.073	76	31	0.1	0.1	3.726	A
2 - New Nangor Road (W)	352	88	14	1242	0.284	352	420	0.3	0.4	4.046	A
3 - Profile Park	9	2	366	1458	0.006	9	0.90	0.0	0.0	2.484	A
4 - New Nangor Road (E)	361	90	29	1241	0.291	361	346	0.3	0.4	4.087	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	94	23	439	1002	0.093	93	38	0.1	0.1	3.963	A
2 - New Nangor Road (W)	432	108	18	1240	0.348	431	515	0.4	0.5	4.447	A
3 - Profile Park	11	3	448	1403	0.008	11	1	0.0	0.0	2.585	A
4 - New Nangor Road (E)	443	111	35	1237	0.358	442	423	0.4	0.6	4.524	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	94	23	439	1002	0.093	94	39	0.1	0.1	3.964	A
2 - New Nangor Road (W)	432	108	18	1240	0.348	432	515	0.5	0.5	4.452	A
3 - Profile Park	11	3	448	1403	0.008	11	1	0.0	0.0	2.586	A
4 - New Nangor Road (E)	443	111	35	1237	0.358	443	424	0.6	0.6	4.529	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	76	19	359	1042	0.073	77	32	0.1	0.1	3.729	A
2 - New Nangor Road (W)	352	88	14	1242	0.284	353	421	0.5	0.4	4.052	A
3 - Profile Park	9	2	366	1457	0.006	9	0.90	0.0	0.0	2.487	A
4 - New Nangor Road (E)	361	90	29	1241	0.291	362	347	0.6	0.4	4.096	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	64	16	301	1071	0.060	64	26	0.1	0.1	3.574	A
2 - New Nangor Road (W)	295	74	12	1243	0.237	295	353	0.4	0.3	3.799	A
3 - Profile Park	8	2	307	1497	0.005	8	0.75	0.0	0.0	2.417	A
4 - New Nangor Road (E)	303	76	24	1244	0.243	303	290	0.4	0.3	3.828	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.32	0.00	0.00	0.32	0.32			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.39	0.00	0.00	0.39	0.39			N/A	N/A
3 - Profile Park	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - New Nangor Road (E)	0.41	0.00	0.00	0.41	0.41			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.53	0.03	0.25	0.53	0.53			N/A	N/A
3 - Profile Park	0.01	0.01	0.26	0.46	0.49			N/A	N/A
4 - New Nangor Road (E)	0.55	0.03	0.25	0.55	0.55			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - New Nangor Road (W)	0.53	0.03	0.30	1.29	2.47			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.55	0.03	0.29	1.25	2.56			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - New Nangor Road (W)	0.40	0.00	0.00	0.40	0.40			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.41	0.00	0.00	0.41	0.41			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.32	0.00	0.00	0.32	0.32			N/A	N/A

2023 With Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.78	A

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)	Run automatically
D5	2023 With Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	59	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	508	100.000
3 - Profile Park		ONE HOUR	✓	3	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	54	2	3
	2 - New Nangor Road (W)	111	0	15	382
	3 - Profile Park	0	0	0	3
	4 - New Nangor Road (E)	29	404	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	55	16	100
	2 - New Nangor Road (W)	26	0	14	13
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	18	11	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	5.33	0.1	0.5	A	54	81
2 - New Nangor Road (W)	0.48	6.03	0.9	1.8	A	466	699
3 - Profile Park	0.00	0.00	0.0	~1	A	0	0
4 - New Nangor Road (E)	0.43	5.57	0.8	2.5	A	410	615

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	44	11	313	800	0.056	44	105	0.0	0.1	4.764	A
2 - New Nangor Road (W)	382	96	14	1161	0.329	380	343	0.0	0.5	4.602	A
3 - Profile Park	0	0	372	1436	0.000	0	23	0.0	0.0	0.000	A
4 - New Nangor Road (E)	337	84	83	1162	0.290	335	288	0.0	0.4	4.345	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	53	13	375	775	0.068	53	126	0.1	0.1	4.987	A
2 - New Nangor Road (W)	457	114	17	1159	0.394	456	411	0.5	0.6	5.116	A
3 - Profile Park	0	0	445	1383	0.000	0	28	0.0	0.0	0.000	A
4 - New Nangor Road (E)	402	100	100	1152	0.349	401	346	0.4	0.5	4.793	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	459	741	0.088	65	154	0.1	0.1	5.323	A
2 - New Nangor Road (W)	559	140	21	1157	0.484	558	503	0.6	0.9	6.005	A
3 - Profile Park	0	0	545	1312	0.000	0	34	0.0	0.0	0.000	A
4 - New Nangor Road (E)	492	123	122	1138	0.432	491	423	0.5	0.8	5.555	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	460	741	0.088	65	154	0.1	0.1	5.325	A
2 - New Nangor Road (W)	559	140	21	1157	0.484	559	504	0.9	0.9	6.026	A
3 - Profile Park	0	0	546	1311	0.000	0	34	0.0	0.0	0.000	A
4 - New Nangor Road (E)	492	123	122	1138	0.432	492	424	0.8	0.8	5.572	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	53	13	377	774	0.069	53	126	0.1	0.1	4.994	A
2 - New Nangor Road (W)	457	114	17	1159	0.394	458	413	0.9	0.7	5.141	A
3 - Profile Park	0	0	447	1382	0.000	0	28	0.0	0.0	0.000	A
4 - New Nangor Road (E)	402	100	100	1152	0.349	403	347	0.8	0.5	4.811	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	44	11	315	799	0.056	44	106	0.1	0.1	4.774	A
2 - New Nangor Road (W)	382	96	14	1161	0.329	383	345	0.7	0.5	4.632	A
3 - Profile Park	0	0	374	1434	0.000	0	23	0.0	0.0	0.000	A
4 - New Nangor Road (E)	337	84	84	1162	0.290	337	290	0.5	0.4	4.368	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.49	0.00	0.00	0.49	0.49			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.64	0.13	0.88	1.38	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.53	0.53	1.00	1.40	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.92	0.03	0.26	0.92	0.92			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.75	0.03	0.25	0.75	0.75			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - New Nangor Road (W)	0.93	0.03	0.27	0.93	1.77			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.76	0.03	0.28	0.76	2.48			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.66	0.22	0.94	1.39	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.54	0.54	1.00	1.40	1.45			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.50	0.05	0.46	1.28	1.39			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.41	0.00	0.00	0.41	0.41			N/A	N/A

2023 With Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.43	A

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)	Run automatically
D6	2023 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	85	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	392	100.000
3 - Profile Park		ONE HOUR	✓	25	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	402	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	70	0	15
	2 - New Nangor Road (W)	23	4	1	364
	3 - Profile Park	0	20	0	5
	4 - New Nangor Road (E)	12	389	0	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	20	0	9
	2 - New Nangor Road (W)	34	0	0	7
	3 - Profile Park	0	25	0	0
	4 - New Nangor Road (E)	67	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	4.01	0.1	0.5	A	78	117
2 - New Nangor Road (W)	0.35	4.45	0.5	2.5	A	360	540
3 - Profile Park	0.02	3.15	0.0	0.5	A	23	34
4 - New Nangor Road (E)	0.36	4.59	0.6	2.6	A	369	553

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	64	16	310	1065	0.060	64	26	0.0	0.1	3.596	A
2 - New Nangor Road (W)	295	74	12	1243	0.237	294	362	0.0	0.3	3.787	A
3 - Profile Park	19	5	305	1248	0.015	19	0.75	0.0	0.0	2.928	A
4 - New Nangor Road (E)	303	76	35	1237	0.245	301	289	0.0	0.3	3.843	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	76	19	372	1034	0.074	76	31	0.1	0.1	3.759	A
2 - New Nangor Road (W)	352	88	14	1242	0.284	352	434	0.3	0.4	4.046	A
3 - Profile Park	22	6	366	1215	0.019	22	0.90	0.0	0.0	3.019	A
4 - New Nangor Road (E)	361	90	42	1232	0.293	361	346	0.3	0.4	4.130	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	94	23	455	991	0.094	93	38	0.1	0.1	4.009	A
2 - New Nangor Road (W)	432	108	18	1240	0.348	431	531	0.4	0.5	4.447	A
3 - Profile Park	28	7	448	1169	0.024	28	1	0.0	0.0	3.152	A
4 - New Nangor Road (E)	443	111	52	1226	0.361	442	423	0.4	0.6	4.588	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	94	23	456	991	0.094	94	39	0.1	0.1	4.010	A
2 - New Nangor Road (W)	432	108	18	1240	0.348	432	532	0.5	0.5	4.452	A
3 - Profile Park	28	7	448	1169	0.024	28	1	0.0	0.0	3.153	A
4 - New Nangor Road (E)	443	111	52	1226	0.361	443	424	0.6	0.6	4.593	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	76	19	373	1033	0.074	77	32	0.1	0.1	3.765	A
2 - New Nangor Road (W)	352	88	14	1242	0.284	353	435	0.5	0.4	4.054	A
3 - Profile Park	22	6	366	1214	0.019	22	0.90	0.0	0.0	3.020	A
4 - New Nangor Road (E)	361	90	42	1232	0.293	362	347	0.6	0.4	4.140	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	64	16	312	1064	0.060	64	26	0.1	0.1	3.602	A
2 - New Nangor Road (W)	295	74	12	1243	0.237	295	364	0.4	0.3	3.802	A
3 - Profile Park	19	5	307	1247	0.015	19	0.75	0.0	0.0	2.930	A
4 - New Nangor Road (E)	303	76	35	1237	0.245	303	290	0.4	0.3	3.858	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.32	0.00	0.00	0.32	0.32			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.25	0.46	0.48			N/A	N/A
2 - New Nangor Road (W)	0.39	0.00	0.00	0.39	0.39			N/A	N/A
3 - Profile Park	0.02	0.02	0.25	0.45	0.48			N/A	N/A
4 - New Nangor Road (E)	0.41	0.00	0.00	0.41	0.41			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.53	0.03	0.25	0.53	0.53			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.56	0.03	0.25	0.56	0.56			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - New Nangor Road (W)	0.53	0.03	0.30	1.29	2.47			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.56	0.03	0.29	1.23	2.59			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - New Nangor Road (W)	0.40	0.00	0.00	0.40	0.40			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.42	0.00	0.00	0.42	0.42			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A

2024 No Construction , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	5.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.77	A

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)	Run automatically
D7	2024 No Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	59	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	517	100.000
3 - Profile Park		ONE HOUR	✓	3	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	446	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	55	1	3
	2 - New Nangor Road (W)	113	0	13	391
	3 - Profile Park	0	0	0	3
	4 - New Nangor Road (E)	30	413	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	56	0	100
	2 - New Nangor Road (W)	26	0	10	13
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	18	11	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	5.36	0.1	0.5	A	54	81
2 - New Nangor Road (W)	0.49	6.03	0.9	1.7	A	474	712
3 - Profile Park	0.00	0.00	0.0	~1	A	0	0
4 - New Nangor Road (E)	0.43	5.52	0.7	2.5	A	409	614

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	44	11	312	794	0.056	44	107	0.0	0.1	4.799	A
2 - New Nangor Road (W)	389	97	5	1168	0.333	387	351	0.0	0.5	4.603	A
3 - Profile Park	0	0	380	1430	0.000	0	13	0.0	0.0	0.000	A
4 - New Nangor Road (E)	336	84	85	1167	0.288	334	295	0.0	0.4	4.316	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	53	13	374	770	0.069	53	128	0.1	0.1	5.022	A
2 - New Nangor Road (W)	465	116	6	1167	0.398	464	420	0.5	0.7	5.119	A
3 - Profile Park	0	0	455	1376	0.000	0	15	0.0	0.0	0.000	A
4 - New Nangor Road (E)	401	100	101	1157	0.347	400	354	0.4	0.5	4.758	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	457	737	0.088	65	157	0.1	0.1	5.357	A
2 - New Nangor Road (W)	569	142	8	1166	0.488	568	514	0.7	0.9	6.011	A
3 - Profile Park	0	0	557	1303	0.000	0	19	0.0	0.0	0.000	A
4 - New Nangor Road (E)	491	123	124	1143	0.430	490	433	0.5	0.7	5.511	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	458	737	0.088	65	157	0.1	0.1	5.360	A
2 - New Nangor Road (W)	569	142	8	1166	0.488	569	515	0.9	0.9	6.032	A
3 - Profile Park	0	0	558	1303	0.000	0	19	0.0	0.0	0.000	A
4 - New Nangor Road (E)	491	123	124	1143	0.430	491	434	0.7	0.7	5.525	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	53	13	375	769	0.069	53	129	0.1	0.1	5.026	A
2 - New Nangor Road (W)	465	116	6	1167	0.398	466	422	0.9	0.7	5.143	A
3 - Profile Park	0	0	457	1375	0.000	0	15	0.0	0.0	0.000	A
4 - New Nangor Road (E)	401	100	102	1156	0.347	402	355	0.7	0.5	4.778	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	44	11	314	793	0.056	44	108	0.1	0.1	4.808	A
2 - New Nangor Road (W)	389	97	5	1168	0.333	390	353	0.7	0.5	4.632	A
3 - Profile Park	0	0	382	1428	0.000	0	13	0.0	0.0	0.000	A
4 - New Nangor Road (E)	336	84	85	1167	0.288	336	297	0.5	0.4	4.340	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.66	0.13	0.88	1.38	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.53	0.53	1.00	1.40	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.94	0.03	0.26	0.94	0.94			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.75	0.03	0.25	0.75	0.75			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - New Nangor Road (W)	0.95	0.03	0.27	0.95	1.70			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.75	0.03	0.28	0.75	2.50			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.67	0.23	0.94	1.39	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.53	0.53	1.00	1.40	1.45			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.50	0.05	0.48	1.29	1.40			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.41	0.00	0.00	0.41	0.41			N/A	N/A

2024 No Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.48	A

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)	Run automatically
D8	2024 No Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	87	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	401	100.000
3 - Profile Park		ONE HOUR	✓	10	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	411	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	71	0	16
	2 - New Nangor Road (W)	24	4	1	372
	3 - Profile Park	0	5	0	5
	4 - New Nangor Road (E)	12	398	0	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	21	0	9
	2 - New Nangor Road (W)	34	0	0	7
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	68	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.10	4.02	0.1	0.5	A	80	120
2 - New Nangor Road (W)	0.36	4.51	0.6	2.5	A	368	552
3 - Profile Park	0.01	2.60	0.0	0.5	A	9	14
4 - New Nangor Road (E)	0.37	4.59	0.6	2.6	A	377	566

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	306	1062	0.062	65	27	0.0	0.1	3.612	A
2 - New Nangor Road (W)	302	75	13	1242	0.243	301	358	0.0	0.3	3.818	A
3 - Profile Park	8	2	313	1493	0.005	8	0.75	0.0	0.0	2.423	A
4 - New Nangor Road (E)	309	77	25	1244	0.249	308	295	0.0	0.3	3.841	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	78	20	366	1032	0.076	78	32	0.1	0.1	3.774	A
2 - New Nangor Road (W)	360	90	15	1241	0.291	360	429	0.3	0.4	4.085	A
3 - Profile Park	9	2	375	1451	0.006	9	0.90	0.0	0.0	2.495	A
4 - New Nangor Road (E)	369	92	30	1241	0.298	369	354	0.3	0.4	4.127	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	96	24	449	991	0.097	96	40	0.1	0.1	4.022	A
2 - New Nangor Road (W)	442	110	19	1239	0.356	441	526	0.4	0.5	4.508	A
3 - Profile Park	11	3	459	1396	0.008	11	1	0.0	0.0	2.599	A
4 - New Nangor Road (E)	453	113	36	1237	0.366	452	433	0.4	0.6	4.587	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	96	24	449	990	0.097	96	40	0.1	0.1	4.023	A
2 - New Nangor Road (W)	442	110	19	1239	0.356	441	526	0.5	0.6	4.513	A
3 - Profile Park	11	3	459	1395	0.008	11	1	0.0	0.0	2.600	A
4 - New Nangor Road (E)	453	113	36	1237	0.366	453	434	0.6	0.6	4.590	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	78	20	367	1031	0.076	78	32	0.1	0.1	3.780	A
2 - New Nangor Road (W)	360	90	15	1241	0.291	361	430	0.6	0.4	4.095	A
3 - Profile Park	9	2	375	1451	0.006	9	0.90	0.0	0.0	2.496	A
4 - New Nangor Road (E)	369	92	30	1241	0.298	370	355	0.6	0.4	4.137	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	308	1061	0.062	66	27	0.1	0.1	3.618	A
2 - New Nangor Road (W)	302	75	13	1242	0.243	302	360	0.4	0.3	3.833	A
3 - Profile Park	8	2	314	1492	0.005	8	0.75	0.0	0.0	2.427	A
4 - New Nangor Road (E)	309	77	25	1244	0.249	310	297	0.4	0.3	3.857	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.26	0.46	0.49			N/A	N/A
2 - New Nangor Road (W)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - Profile Park	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - New Nangor Road (E)	0.42	0.00	0.00	0.42	0.42			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.11	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.55	0.03	0.25	0.55	0.55			N/A	N/A
3 - Profile Park	0.01	0.01	0.26	0.46	0.49			N/A	N/A
4 - New Nangor Road (E)	0.57	0.03	0.25	0.57	0.57			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.11	0.00	0.00	0.11	0.11			N/A	N/A
2 - New Nangor Road (W)	0.55	0.03	0.29	1.25	2.55			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.57	0.03	0.29	1.19	2.61			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - New Nangor Road (W)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.43	0.00	0.00	0.43	0.43			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3 - Profile Park	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - New Nangor Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A

2024 With Construction , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	5.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.89	A

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)	Run automatically
D9	2024 With Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	60	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	519	100.000
3 - Profile Park		ONE HOUR	✓	3	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	457	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	55	2	3
	2 - New Nangor Road (W)	113	0	15	391
	3 - Profile Park	0	0	0	3
	4 - New Nangor Road (E)	30	413	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	56	16	100
	2 - New Nangor Road (W)	26	0	14	13
	3 - Profile Park	0	0	0	0
	4 - New Nangor Road (E)	18	11	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.09	5.40	0.1	0.5	A	55	83
2 - New Nangor Road (W)	0.49	6.15	1.0	1.7	A	476	714
3 - Profile Park	0.00	0.00	0.0	~1	A	0	0
4 - New Nangor Road (E)	0.44	5.68	0.8	2.4	A	419	629

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	45	11	320	792	0.057	45	107	0.0	0.1	4.815	A
2 - New Nangor Road (W)	391	98	14	1161	0.337	389	351	0.0	0.5	4.649	A
3 - Profile Park	0	0	380	1430	0.000	0	23	0.0	0.0	0.000	A
4 - New Nangor Road (E)	344	86	85	1161	0.296	342	295	0.0	0.4	4.388	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	54	13	383	767	0.070	54	128	0.1	0.1	5.047	A
2 - New Nangor Road (W)	467	117	17	1159	0.403	466	420	0.5	0.7	5.189	A
3 - Profile Park	0	0	455	1376	0.000	0	28	0.0	0.0	0.000	A
4 - New Nangor Road (E)	411	103	101	1151	0.357	410	354	0.4	0.6	4.858	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	66	17	469	733	0.090	66	157	0.1	0.1	5.396	A
2 - New Nangor Road (W)	571	143	21	1157	0.494	570	514	0.7	1.0	6.125	A
3 - Profile Park	0	0	557	1303	0.000	0	34	0.0	0.0	0.000	A
4 - New Nangor Road (E)	503	126	124	1137	0.443	502	433	0.6	0.8	5.663	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	66	17	470	733	0.090	66	157	0.1	0.1	5.399	A
2 - New Nangor Road (W)	571	143	21	1157	0.494	571	515	1.0	1.0	6.150	A
3 - Profile Park	0	0	558	1303	0.000	0	34	0.0	0.0	0.000	A
4 - New Nangor Road (E)	503	126	124	1137	0.443	503	434	0.8	0.8	5.680	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	54	13	385	767	0.070	54	129	0.1	0.1	5.052	A
2 - New Nangor Road (W)	467	117	17	1159	0.403	468	422	1.0	0.7	5.215	A
3 - Profile Park	0	0	457	1375	0.000	0	28	0.0	0.0	0.000	A
4 - New Nangor Road (E)	411	103	102	1151	0.357	412	355	0.8	0.6	4.879	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	45	11	322	792	0.057	45	108	0.1	0.1	4.823	A
2 - New Nangor Road (W)	391	98	14	1161	0.337	391	353	0.7	0.5	4.681	A
3 - Profile Park	0	0	382	1428	0.000	0	23	0.0	0.0	0.000	A
4 - New Nangor Road (E)	344	86	85	1161	0.296	345	297	0.6	0.4	4.413	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.50	0.50	1.00	1.40	1.45			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.42	0.00	0.00	0.42	0.42			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.25	0.45	0.48			N/A	N/A
2 - New Nangor Road (W)	0.67	0.13	0.88	1.38	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.55	0.55	1.00	1.40	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.96	0.03	0.26	0.96	0.96			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.79	0.03	0.26	0.79	0.79			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - New Nangor Road (W)	0.97	0.03	0.27	0.97	1.66			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.79	0.03	0.28	0.79	2.38			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - New Nangor Road (W)	0.68	0.22	0.94	1.39	1.44			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.56	0.55	1.00	1.40	1.45			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - New Nangor Road (W)	0.51	0.05	0.50	1.30	1.40			N/A	N/A
3 - Profile Park	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - New Nangor Road (E)	0.42	0.00	0.00	0.42	0.42			N/A	N/A

2024 With Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.49	A

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)	Run automatically
D10	2024 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Kilcarbery Park		ONE HOUR	✓	87	100.000
2 - New Nangor Road (W)		ONE HOUR	✓	401	100.000
3 - Profile Park		ONE HOUR	✓	25	100.000
4 - New Nangor Road (E)		ONE HOUR	✓	411	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	71	0	16
	2 - New Nangor Road (W)	24	4	1	372
	3 - Profile Park	0	20	0	5
	4 - New Nangor Road (E)	12	398	0	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Kilcarbery Park	2 - New Nangor Road (W)	3 - Profile Park	4 - New Nangor Road (E)
From	1 - Kilcarbery Park	0	21	0	9
	2 - New Nangor Road (W)	34	0	0	7
	3 - Profile Park	0	25	0	0
	4 - New Nangor Road (E)	68	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Kilcarbery Park	0.10	4.07	0.1	0.5	A	80	120
2 - New Nangor Road (W)	0.36	4.51	0.6	2.5	A	368	552
3 - Profile Park	0.02	3.17	0.0	0.5	A	23	34
4 - New Nangor Road (E)	0.37	4.66	0.6	2.6	A	377	566

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	317	1055	0.062	65	27	0.0	0.1	3.638	A
2 - New Nangor Road (W)	302	75	13	1242	0.243	301	370	0.0	0.3	3.818	A
3 - Profile Park	19	5	313	1244	0.015	19	0.75	0.0	0.0	2.938	A
4 - New Nangor Road (E)	309	77	36	1236	0.250	308	295	0.0	0.3	3.872	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	78	20	380	1023	0.076	78	32	0.1	0.1	3.808	A
2 - New Nangor Road (W)	360	90	15	1241	0.291	360	443	0.3	0.4	4.085	A
3 - Profile Park	22	6	375	1210	0.019	22	0.90	0.0	0.0	3.031	A
4 - New Nangor Road (E)	369	92	43	1232	0.300	369	354	0.3	0.4	4.171	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	96	24	465	980	0.098	96	40	0.1	0.1	4.069	A
2 - New Nangor Road (W)	442	110	19	1239	0.356	441	542	0.4	0.5	4.508	A
3 - Profile Park	28	7	459	1163	0.024	28	1	0.0	0.0	3.169	A
4 - New Nangor Road (E)	453	113	53	1226	0.369	452	433	0.4	0.6	4.648	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	96	24	466	980	0.098	96	40	0.1	0.1	4.070	A
2 - New Nangor Road (W)	442	110	19	1239	0.356	441	543	0.5	0.6	4.513	A
3 - Profile Park	28	7	459	1163	0.024	28	1	0.0	0.0	3.170	A
4 - New Nangor Road (E)	453	113	53	1226	0.369	453	434	0.6	0.6	4.656	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	78	20	381	1023	0.076	78	32	0.1	0.1	3.811	A
2 - New Nangor Road (W)	360	90	15	1241	0.291	361	444	0.6	0.4	4.094	A
3 - Profile Park	22	6	375	1209	0.019	22	0.90	0.0	0.0	3.033	A
4 - New Nangor Road (E)	369	92	43	1232	0.300	370	355	0.6	0.4	4.180	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Kilcarbery Park	65	16	319	1054	0.062	66	27	0.1	0.1	3.644	A
2 - New Nangor Road (W)	302	75	13	1242	0.243	302	372	0.4	0.3	3.830	A
3 - Profile Park	19	5	314	1243	0.015	19	0.75	0.0	0.0	2.942	A
4 - New Nangor Road (E)	309	77	36	1236	0.250	310	297	0.4	0.3	3.887	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.03	0.26	0.46	0.49			N/A	N/A
2 - New Nangor Road (W)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - Profile Park	0.02	0.02	0.25	0.45	0.48			N/A	N/A
4 - New Nangor Road (E)	0.43	0.00	0.00	0.43	0.43			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.11	0.03	0.26	0.47	0.49			N/A	N/A
2 - New Nangor Road (W)	0.55	0.03	0.25	0.55	0.55			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.58	0.03	0.25	0.58	0.58			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.11	0.00	0.00	0.11	0.11			N/A	N/A
2 - New Nangor Road (W)	0.55	0.03	0.29	1.25	2.55			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.58	0.03	0.29	1.17	2.62			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - New Nangor Road (W)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.43	0.00	0.00	0.43	0.43			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Kilcarbery Park	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - New Nangor Road (W)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3 - Profile Park	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - New Nangor Road (E)	0.34	0.00	0.00	0.34	0.34			N/A	N/A

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Junction 2 Substation.j10

Path: W:\Projects\11069 - Centrica - Profile Park Power Plant\05-Design\01-Calculations\Traffic\Substation

Report generation date: 13/02/2023 10:15:09

-
- »2021 Baseflows , AM
 - »2021 Baseflows , PM
 - »2023 No Construction, AM
 - »2023 No Construction, PM
 - »2023 With Construction, AM
 - »2023 With Construction, PM
 - »2024 No Construction , AM
 - »2024 No Construction, PM
 - »2024 With Construction , AM
 - »2024 With Construction, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
2021 Baseflows								
1 - Profile Park (NE) Profile Park (NE)	0.0	5.23	0.02	5.23	0.0	0.00	0.00	4.84
2 - Profile Park (SE)	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Profile Park (SW)	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Profile Park (NW)	0.0	0.00	0.00		0.0	4.84	0.01	
2023 No Construction								
1 - Profile Park (NE) Profile Park (NE)	0.0	5.36	0.03	5.36	0.0	0.00	0.00	4.85
2 - Profile Park (SE)	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Profile Park (SW)	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Profile Park (NW)	0.0	0.00	0.00		0.0	4.85	0.01	
2023 With Construction								
1 - Profile Park (NE) Profile Park (NE)	0.1	6.10	0.06	6.10	0.0	0.00	0.00	6.03
2 - Profile Park (SE)	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Profile Park (SW)	0.0	0.00	0.00		0.0	6.48	0.03	
4 - Profile Park (NW)	0.0	0.00	0.00		0.0	4.92	0.01	
2024 No Construction								
1 - Profile Park (NE) Profile Park (NE)	0.0	5.36	0.03	5.36	0.0	0.00	0.00	4.85
2 - Profile Park (SE)	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Profile Park (SW)	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Profile Park (NW)	0.0	0.00	0.00		0.0	4.85	0.01	
2024 With Construction								
1 - Profile Park (NE) Profile Park (NE)	0.1	6.10	0.06	6.10	0.0	0.00	0.00	6.10
2 - Profile Park (SE)	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Profile Park (SW)	0.0	0.00	0.00		0.0	6.55	0.03	
4 - Profile Park (NW)	0.0	0.00	0.00		0.0	4.92	0.01	

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. Junction LOS and Junction Delay are demand-weighted averages.

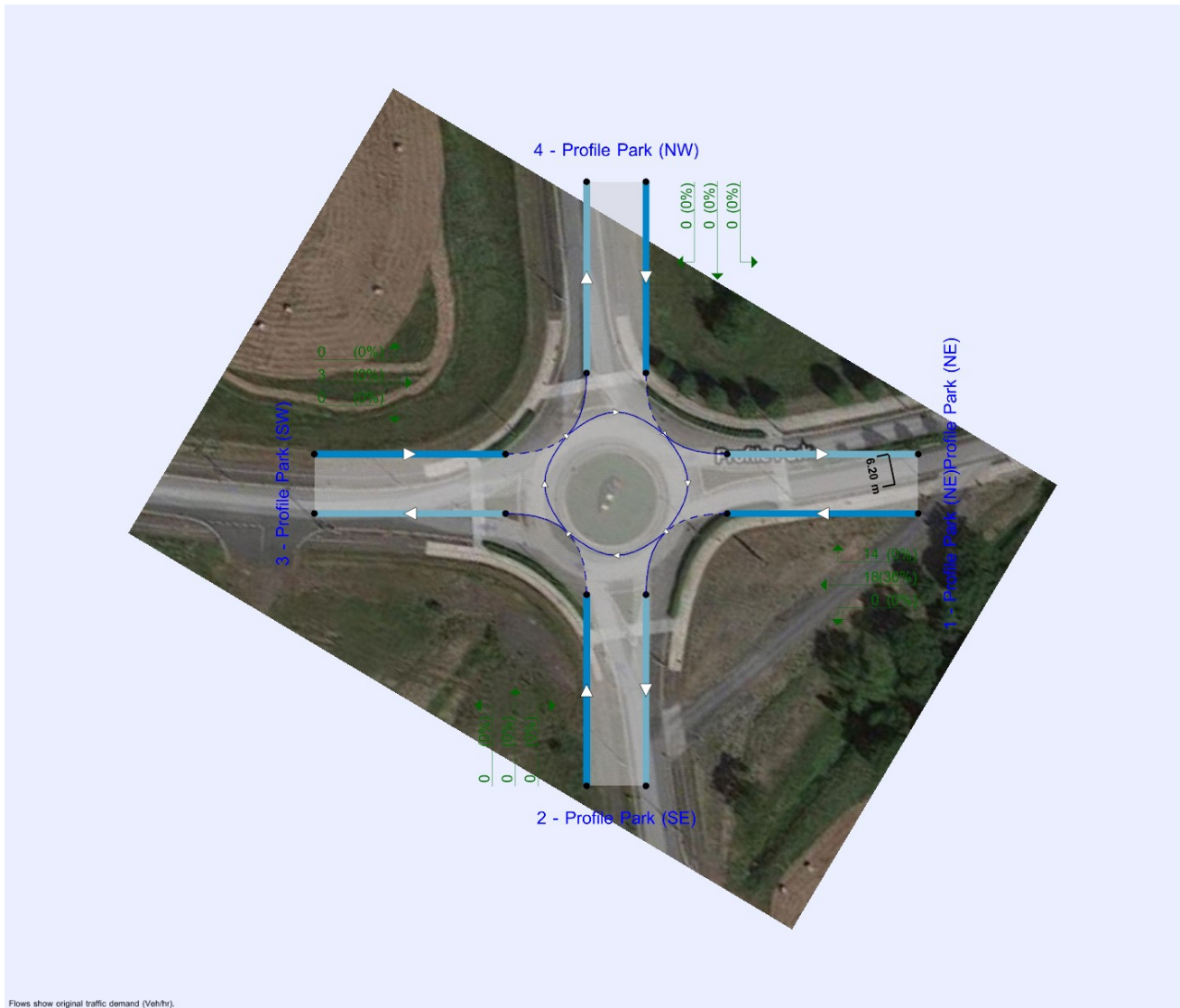
File summary

File Description

Title	Junction 2
Location	Grange Castle
Site number	
Date	30/04/2021
Version	
Status	(new file)
Identifier	
Client	11069
Jobnumber	
Enumerator	TOBIN\Maria Rooney
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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseflows	AM	ONE HOUR	08:15	09:45	15	✓
D2	2021 Baseflows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 No Construction	AM	ONE HOUR	08:15	09:45	15	✓
D4	2023 No Construction	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 With Construction	AM	ONE HOUR	08:15	09:45	15	✓
D6	2023 With Construction	PM	ONE HOUR	16:00	17:30	15	✓
D7	2024 No Construction	AM	ONE HOUR	08:15	09:45	15	✓
D8	2024 No Construction	PM	ONE HOUR	16:00	17:30	15	✓
D9	2024 With Construction	AM	ONE HOUR	08:15	09:45	15	✓
D10	2024 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	✓	100.000	100.000

2021 Baseflows , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	5.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.23	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Profile Park (NE) Profile Park (NE)		
2	Profile Park (SE)		
3	Profile Park (SW)		
4	Profile Park (NW)		

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)	Entry only	Exit only
1 - Profile Park (NE) Profile Park (NE)	3.00	3.00	0.0	3.0	13.0	0.0		
2 - Profile Park (SE)	3.00	3.00	0.0	3.0	13.0	0.0		
3 - Profile Park (SW)	3.00	3.00	0.0	3.0	13.0	0.0		
4 - Profile Park (NW)	3.00	3.00	0.0	3.0	13.0	0.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Profile Park (NE) Profile Park (NE)	0.416	752
2 - Profile Park (SE)	0.416	752
3 - Profile Park (SW)	0.416	752
4 - Profile Park (NW)	0.416	752

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)	Run automatically
D1	2021 Baseflows	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	15	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	2	100.000
4 - Profile Park (NW)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	2	13
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	2	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	50	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.02	5.23	0.0	0.5	A	14	21
2 - Profile Park (SE)	0.00	0.00	0.0	-1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	-1	A	0	0
4 - Profile Park (NW)	0.00	0.00	0.0	-1	A	0	0

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	11	3	0	705	0.016	11	0	0.0	0.0	5.190	A
2 - Profile Park (SE)	0	0	11	747	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	10	748	0.000	0	1	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	13	3	0	705	0.019	13	0	0.0	0.0	5.207	A
2 - Profile Park (SE)	0	0	13	746	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	12	747	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	12	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	17	4	0	705	0.023	16	0	0.0	0.0	5.230	A
2 - Profile Park (SE)	0	0	16	744	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	14	746	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	14	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	17	4	0	705	0.023	17	0	0.0	0.0	5.230	A
2 - Profile Park (SE)	0	0	17	744	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	14	746	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	14	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	13	3	0	705	0.019	14	0	0.0	0.0	5.209	A
2 - Profile Park (SE)	0	0	14	746	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	12	747	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	12	0.0	0.0	0.000	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	11	3	0	705	0.016	11	0	0.0	0.0	5.193	A
2 - Profile Park (SE)	0	0	11	747	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	10	748	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.02	0.25	0.45	0.48			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2021 Baseflows , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.84	A

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)	Run automatically
D2	2021 Baseflows	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	1	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	1	100.000
4 - Profile Park (NW)		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	1	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	1	0	0	0
	4 - Profile Park (NW)	8	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	0	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.0	~1	A	0	0
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.01	4.84	0.0	0.5	A	7	11

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	6	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	6	2	0	752	0.008	6	0	0.0	0.0	4.827	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	7	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	7	2	0	752	0.010	7	0	0.0	0.0	4.834	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	9	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	9	2	0	752	0.012	9	0	0.0	0.0	4.845	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	9	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	9	2	0	752	0.012	9	0	0.0	0.0	4.845	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	7	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	7	2	0	752	0.010	7	0	0.0	0.0	4.836	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	6	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	6	2	0	752	0.008	6	0	0.0	0.0	4.829	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.01	0.25	0.45	0.48			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

2023 No Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.36	A

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)	Run automatically
D3	2023 No Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	17	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	3	100.000
4 - Profile Park (NW)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	3	14
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	3	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	51	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.03	5.36	0.0	0.5	A	16	23
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.00	0.00	0.0	~1	A	0	0

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	13	3	0	690	0.019	13	0	0.0	0.0	5.318	A
2 - Profile Park (SE)	0	0	13	746	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	10	747	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	15	4	0	690	0.022	15	0	0.0	0.0	5.337	A
2 - Profile Park (SE)	0	0	15	745	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	19	5	0	690	0.027	19	0	0.0	0.0	5.364	A
2 - Profile Park (SE)	0	0	19	743	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	19	5	0	690	0.027	19	0	0.0	0.0	5.364	A
2 - Profile Park (SE)	0	0	19	743	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	15	4	0	690	0.022	15	0	0.0	0.0	5.340	A
2 - Profile Park (SE)	0	0	15	745	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	13	3	0	690	0.019	13	0	0.0	0.0	5.320	A
2 - Profile Park (SE)	0	0	13	746	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	11	747	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	11	0.0	0.0	0.000	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.02	0.25	0.45	0.48			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2023 No Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.85	A

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)	Run automatically
D4	2023 No Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	1	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	1	100.000
4 - Profile Park (NW)		ONE HOUR	✓	9	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	1	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	1	0	0	0
	4 - Profile Park (NW)	9	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	0	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.0	~1	A	0	0
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.01	4.85	0.0	0.5	A	8	12

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	7	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	7	2	0	752	0.009	7	0	0.0	0.0	4.831	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	8	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	8	2	0	752	0.011	8	0	0.0	0.0	4.840	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	10	2	0	752	0.013	10	0	0.0	0.0	4.852	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	10	2	0	752	0.013	10	0	0.0	0.0	4.852	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	8	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	8	2	0	752	0.011	8	0	0.0	0.0	4.842	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	7	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	7	2	0	752	0.009	7	0	0.0	0.0	4.833	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.01	0.25	0.45	0.48			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

2023 With Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	6.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.10	A

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)	Run automatically
D5	2023 With Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	32	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	3	100.000
4 - Profile Park (NW)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	18	14
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	3	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	36	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.06	6.10	0.1	0.5	A	29	44
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.00	0.00	0.0	~1	A	0	0

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	24	6	0	625	0.039	24	0	0.0	0.0	5.986	A
2 - Profile Park (SE)	0	0	24	740	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	10	747	0.000	0	13	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	29	7	0	625	0.046	29	0	0.0	0.0	6.035	A
2 - Profile Park (SE)	0	0	29	737	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	16	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	35	9	0	625	0.056	35	0	0.0	0.1	6.101	A
2 - Profile Park (SE)	0	0	35	734	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	20	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	35	9	0	625	0.056	35	0	0.1	0.1	6.101	A
2 - Profile Park (SE)	0	0	35	734	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	20	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	29	7	0	625	0.046	29	0	0.1	0.0	6.036	A
2 - Profile Park (SE)	0	0	29	737	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	16	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	24	6	0	625	0.039	24	0	0.0	0.0	5.989	A
2 - Profile Park (SE)	0	0	24	740	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	11	747	0.000	0	14	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	11	0.0	0.0	0.000	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2023 With Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	6.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.03	A

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)	Run automatically
D6	2023 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	1	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	17	100.000
4 - Profile Park (NW)		ONE HOUR	✓	9	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
1 - Profile Park (NE) Profile Park (NE)	0	0	1	0
2 - Profile Park (SE)	0	0	0	0
3 - Profile Park (SW)	17	0	0	0
4 - Profile Park (NW)	9	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	0	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	31	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.0	~1	A	0	0
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.03	6.48	0.0	0.5	A	16	23
4 - Profile Park (NW)	0.01	4.92	0.0	0.5	A	8	12

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	19	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	13	3	0	574	0.022	13	0	0.0	0.0	6.415	A
4 - Profile Park (NW)	7	2	13	745	0.009	7	0	0.0	0.0	4.877	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	23	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	15	4	0	574	0.027	15	0	0.0	0.0	6.444	A
4 - Profile Park (NW)	8	2	15	743	0.011	8	0	0.0	0.0	4.895	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	29	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	19	5	0	574	0.033	19	0	0.0	0.0	6.484	A
4 - Profile Park (NW)	10	2	19	742	0.013	10	0	0.0	0.0	4.919	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	29	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	19	5	0	574	0.033	19	0	0.0	0.0	6.484	A
4 - Profile Park (NW)	10	2	19	742	0.013	10	0	0.0	0.0	4.919	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	23	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	15	4	0	574	0.027	15	0	0.0	0.0	6.447	A
4 - Profile Park (NW)	8	2	15	743	0.011	8	0	0.0	0.0	4.895	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	20	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	13	3	0	574	0.022	13	0	0.0	0.0	6.418	A
4 - Profile Park (NW)	7	2	13	745	0.009	7	0	0.0	0.0	4.879	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.03	0.03	0.25	0.45	0.48			N/A	N/A
4 - Profile Park (NW)	0.01	0.01	0.25	0.45	0.48			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.03	0.03	0.25	0.45	0.48			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

2024 No Construction , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.36	A

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)	Run automatically
D7	2024 No Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	17	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	3	100.000
4 - Profile Park (NW)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
1 - Profile Park (NE) Profile Park (NE)	0	0	3	14
2 - Profile Park (SE)	0	0	0	0
3 - Profile Park (SW)	3	0	0	0
4 - Profile Park (NW)	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	51	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.03	5.36	0.0	0.5	A	16	23
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.00	0.00	0.0	~1	A	0	0

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	13	3	0	690	0.019	13	0	0.0	0.0	5.318	A
2 - Profile Park (SE)	0	0	13	746	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	10	747	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	15	4	0	690	0.022	15	0	0.0	0.0	5.337	A
2 - Profile Park (SE)	0	0	15	745	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	19	5	0	690	0.027	19	0	0.0	0.0	5.364	A
2 - Profile Park (SE)	0	0	19	743	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	19	5	0	690	0.027	19	0	0.0	0.0	5.364	A
2 - Profile Park (SE)	0	0	19	743	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	15	4	0	690	0.022	15	0	0.0	0.0	5.340	A
2 - Profile Park (SE)	0	0	15	745	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	3	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	13	3	0	690	0.019	13	0	0.0	0.0	5.320	A
2 - Profile Park (SE)	0	0	13	746	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	11	747	0.000	0	2	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	11	0.0	0.0	0.000	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.02	0.25	0.45	0.48			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2024 No Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	4.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.85	A

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)	Run automatically
D8	2024 No Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	1	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	1	100.000
4 - Profile Park (NW)		ONE HOUR	✓	9	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	1	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	1	0	0	0
	4 - Profile Park (NW)	9	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	0	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.0	~1	A	0	0
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.01	4.85	0.0	0.5	A	8	12

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	7	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	7	2	0	752	0.009	7	0	0.0	0.0	4.831	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	8	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	8	2	0	752	0.011	8	0	0.0	0.0	4.840	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	10	2	0	752	0.013	10	0	0.0	0.0	4.852	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	10	2	0	752	0.013	10	0	0.0	0.0	4.852	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	8	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	8	2	0	752	0.011	8	0	0.0	0.0	4.842	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	7	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
4 - Profile Park (NW)	7	2	0	752	0.009	7	0	0.0	0.0	4.833	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.01	0.25	0.45	0.48			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

2024 With Construction , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	6.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.10	A

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)	Run automatically
D9	2024 With Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	32	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	3	100.000
4 - Profile Park (NW)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
1 - Profile Park (NE) Profile Park (NE)	0	0	18	14
2 - Profile Park (SE)	0	0	0	0
3 - Profile Park (SW)	3	0	0	0
4 - Profile Park (NW)	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	36	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	0	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.06	6.10	0.1	0.5	A	29	44
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.00	0.00	0.0	~1	A	0	0
4 - Profile Park (NW)	0.00	0.00	0.0	~1	A	0	0

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	24	6	0	625	0.039	24	0	0.0	0.0	5.986	A
2 - Profile Park (SE)	0	0	24	740	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	10	747	0.000	0	13	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	10	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	29	7	0	625	0.046	29	0	0.0	0.0	6.035	A
2 - Profile Park (SE)	0	0	29	737	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	16	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	35	9	0	625	0.056	35	0	0.0	0.1	6.101	A
2 - Profile Park (SE)	0	0	35	734	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	20	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	35	9	0	625	0.056	35	0	0.1	0.1	6.101	A
2 - Profile Park (SE)	0	0	35	734	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	15	745	0.000	0	20	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	15	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	29	7	0	625	0.046	29	0	0.1	0.0	6.036	A
2 - Profile Park (SE)	0	0	29	737	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	13	747	0.000	0	16	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	13	0.0	0.0	0.000	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	24	6	0	625	0.039	24	0	0.0	0.0	5.989	A
2 - Profile Park (SE)	0	0	24	740	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	0	0	11	747	0.000	0	14	0.0	0.0	0.000	A
4 - Profile Park (NW)	0	0	0	752	0.000	0	11	0.0	0.0	0.000	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Profile Park (NW)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2024 With Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	6.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.10	A

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)	Run automatically
D10	2024 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Profile Park (NE) Profile Park (NE)		ONE HOUR	✓	1	100.000
2 - Profile Park (SE)		ONE HOUR	✓	0	100.000
3 - Profile Park (SW)		ONE HOUR	✓	18	100.000
4 - Profile Park (NW)		ONE HOUR	✓	9	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
From	1 - Profile Park (NE) Profile Park (NE)	0	0	1	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	18	0	0	0
	4 - Profile Park (NW)	9	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Profile Park (NE) Profile Park (NE)	2 - Profile Park (SE)	3 - Profile Park (SW)	4 - Profile Park (NW)
	1 - Profile Park (NE) Profile Park (NE)	0	0	0	0
	2 - Profile Park (SE)	0	0	0	0
	3 - Profile Park (SW)	32	0	0	0
	4 - Profile Park (NW)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.0	~1	A	0	0
2 - Profile Park (SE)	0.00	0.00	0.0	~1	A	0	0
3 - Profile Park (SW)	0.03	6.55	0.0	0.5	A	17	25
4 - Profile Park (NW)	0.01	4.92	0.0	0.5	A	8	12

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	20	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	14	3	0	570	0.024	13	0	0.0	0.0	6.474	A
4 - Profile Park (NW)	7	2	13	744	0.009	7	0	0.0	0.0	4.880	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	24	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	16	4	0	570	0.028	16	0	0.0	0.0	6.505	A
4 - Profile Park (NW)	8	2	16	743	0.011	8	0	0.0	0.0	4.898	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	30	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	20	5	0	570	0.035	20	0	0.0	0.0	6.548	A
4 - Profile Park (NW)	10	2	20	741	0.013	10	0	0.0	0.0	4.924	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	30	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	20	5	0	570	0.035	20	0	0.0	0.0	6.548	A
4 - Profile Park (NW)	10	2	20	741	0.013	10	0	0.0	0.0	4.924	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	24	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	16	4	0	570	0.028	16	0	0.0	0.0	6.508	A
4 - Profile Park (NW)	8	2	16	743	0.011	8	0	0.0	0.0	4.899	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Profile Park (NE) Profile Park (NE)	0	0	0	752	0.000	0	20	0.0	0.0	0.000	A
2 - Profile Park (SE)	0	0	0	752	0.000	0	0	0.0	0.0	0.000	A
3 - Profile Park (SW)	14	3	0	570	0.024	14	0	0.0	0.0	6.475	A
4 - Profile Park (NW)	7	2	14	744	0.009	7	0	0.0	0.0	4.882	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.03	0.03	0.25	0.45	0.48			N/A	N/A
4 - Profile Park (NW)	0.01	0.01	0.25	0.45	0.48			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.04	0.03	0.25	0.45	0.48			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.04	0.00	0.00	0.04	0.04			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.03	0.00	0.00	0.03	0.03			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Profile Park (NE) Profile Park (NE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
2 - Profile Park (SE)	0.00	0.00	0.00	0.00	0.00			N/A	N/A
3 - Profile Park (SW)	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Profile Park (NW)	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Junction 3 Substation.j10
Path: W:\Projects\11069 - Centrica - Profile Park Power Plant\05-Design\01-Calculations\Traffic\Substation
Report generation date: 13/02/2023 11:20:59

- »2021 Baseflows , AM
- »2021 Baseflows , PM
- »2023 No Construction, AM
- »2023 No Construction, PM
- »2023 With Construction, AM
- »2023 With Construction, PM
- »2024 No Construction , AM
- »2024 No Construction, PM
- »2024 With Construction , AM
- »2024 With Construction , PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
2021 Baseflows										
Stream B-AC	0.0	0.00	0.00	A	0.00	0.0	0.00	0.00	A	0.00
Stream C-AB	0.0	0.00	0.00	A		0.0	0.00	0.00	A	
2023 No Construction										
Stream B-AC	0.0	0.00	0.00	A	0.00	0.0	0.00	0.00	A	0.00
Stream C-AB	0.0	0.00	0.00	A		0.0	0.00	0.00	A	
2023 With Construction										
Stream B-AC	0.0	11.43	0.02	B	3.48	0.0	7.79	0.04	A	5.15
Stream C-AB	0.0	0.00	0.00	A		0.0	0.00	0.00	A	
2024 No Construction										
Stream B-AC	0.0	0.00	0.00	A	0.00	0.0	0.00	0.00	A	0.00
Stream C-AB	0.0	0.00	0.00	A		0.0	0.00	0.00	A	
2024 With Construction										
Stream B-AC	0.0	11.43	0.02	B	3.48	0.0	7.71	0.03	A	4.97
Stream C-AB	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. Junction LOS and Junction Delay are demand-weighted averages.

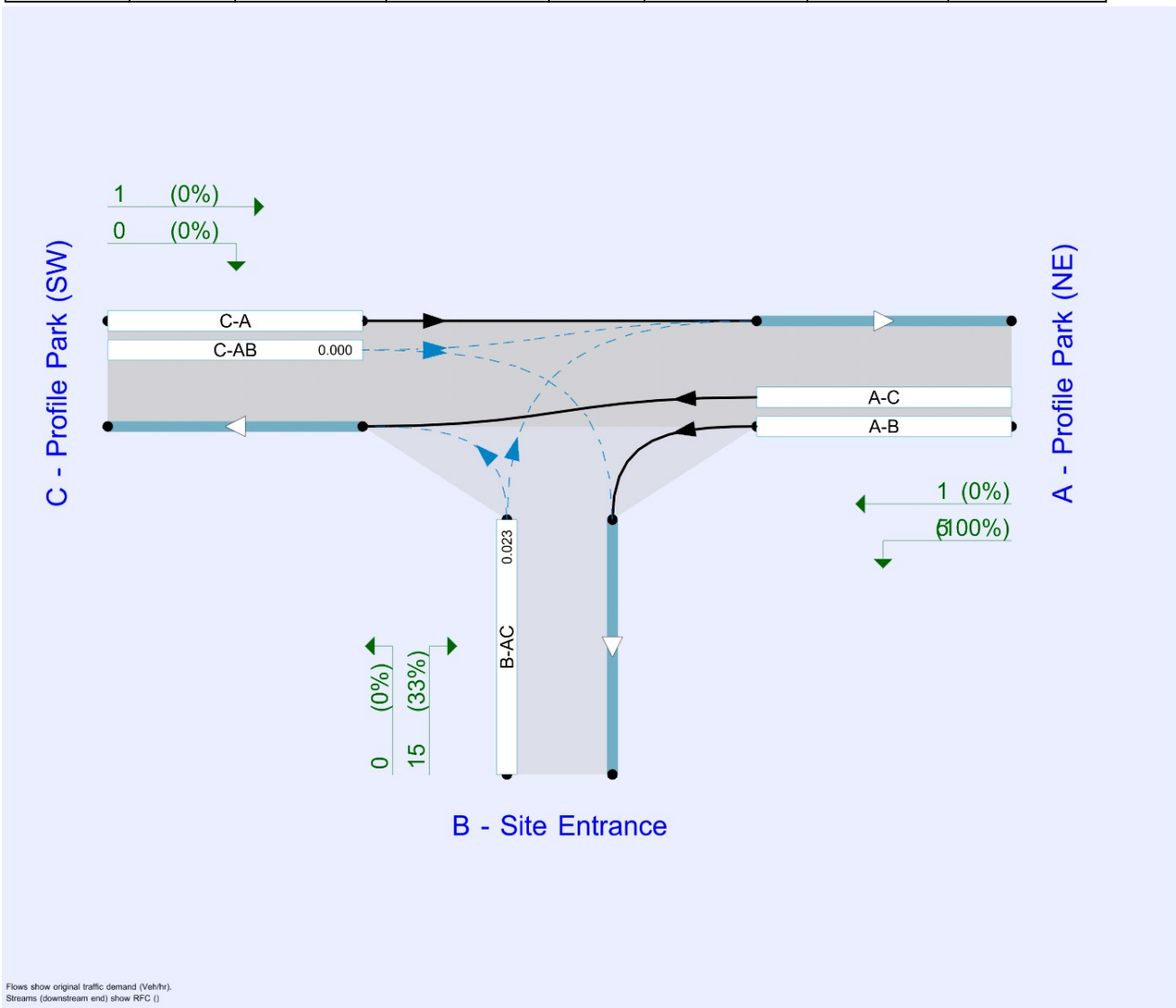
File summary

File Description

Title	
Location	
Site number	
Date	07/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	TOBIN/Maria Rooney
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseflows	AM	ONE HOUR	08:15	09:45	15	✓
D2	2021 Baseflows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 No Construction	AM	ONE HOUR	08:15	09:45	15	✓
D4	2023 No Construction	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 With Construction	AM	ONE HOUR	08:15	09:45	15	✓
D6	2023 With Construction	PM	ONE HOUR	16:00	17:30	15	✓
D7	2024 No Construction	AM	ONE HOUR	08:15	09:45	15	✓
D8	2024 No Construction	PM	ONE HOUR	16:00	17:30	15	✓
D9	2024 With Construction	AM	ONE HOUR	08:15	09:45	15	✓
D10	2024 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Baseflows , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

Arms

Arms

Arm	Name	Description	Arm type
A	Profile Park (NE)		Major
B	Site Entrance		Minor
C	Profile Park (SW)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Profile Park (SW)	8.13			65.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Entrance	One lane	5.00	100	53

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	644	0.106	0.269	0.169	0.384
B-C	789	0.110	0.277	-	-
C-B	612	0.215	0.215	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseflows	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	2	100.000
B - Site Entrance		ONE HOUR	✓	0	100.000
C - Profile Park (SW)		ONE HOUR	✓	2	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From			
A - Profile Park (NE)	0	0	2
B - Site Entrance	0	0	0
C - Profile Park (SW)	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To		
	A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From			
A - Profile Park (NE)	0	0	50
B - Site Entrance	0	0	0
C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2021 Baseflows , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

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)	Run automatically
D2	2021 Baseflows	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	1	100.000
B - Site Entrance		ONE HOUR	✓	0	100.000
C - Profile Park (SW)		ONE HOUR	✓	1	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	1
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	0
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2023 No Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

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)	Run automatically
D3	2023 No Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	3	100.000
B - Site Entrance		ONE HOUR	✓	0	100.000
C - Profile Park (SW)		ONE HOUR	✓	3	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	3
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	3	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	51
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2023 No Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

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)	Run automatically
D4	2023 No Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	1	100.000
B - Site Entrance		ONE HOUR	✓	0	100.000
C - Profile Park (SW)		ONE HOUR	✓	1	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	1
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	0
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2023 With Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		3.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.48	A

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)	Run automatically
D5	2023 With Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	17	100.000
B - Site Entrance		ONE HOUR	✓	5	100.000
C - Profile Park (SW)		ONE HOUR	✓	3	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	15	2
	B - Site Entrance	5	0	0
	C - Profile Park (SW)	3	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	33	46
	B - Site Entrance	100	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	11.43	0.0	0.5	B	5	7
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						14	21
A-C						2	3

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.012	4	0.0	0.0	11.347	B
C-AB	0	0	608	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	11	3			11				
A-C	2	0.38			2				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.014	4	0.0	0.0	11.383	B
C-AB	0	0	607	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	13	3			13				
A-C	2	0.45			2				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	1	320	0.017	5	0.0	0.0	11.431	B
C-AB	0	0	606	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	17	4			17				
A-C	2	0.55			2				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	1	320	0.017	6	0.0	0.0	11.431	B
C-AB	0	0	606	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	17	4			17				
A-C	2	0.55			2				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.014	5	0.0	0.0	11.384	B
C-AB	0	0	607	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	13	3			13				
A-C	2	0.45			2				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.012	4	0.0	0.0	11.352	B
C-AB	0	0	608	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	11	3			11				
A-C	2	0.38			2				

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2023 With Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		5.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.15	A

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)	Run automatically
D6	2023 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	6	100.000
B - Site Entrance		ONE HOUR	✓	16	100.000
C - Profile Park (SW)		ONE HOUR	✓	1	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	5	1
	B - Site Entrance	16	0	0
	C - Profile Park (SW)	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	100	0
	B - Site Entrance	34	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.04	7.79	0.0	0.5	A	15	22
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						5	7
A-C						0.92	1

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	12	3	480	0.025	12	0.0	0.0	7.691	A
C-AB	0	0	610	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.75	0.19			0.75				

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	14	4	480	0.030	14	0.0	0.0	7.735	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.90	0.22			0.90				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	4	480	0.037	18	0.0	0.0	7.793	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	6	1			6				
A-C	1	0.28			1				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	4	480	0.037	18	0.0	0.0	7.793	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	6	1			6				
A-C	1	0.28			1				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	14	4	480	0.030	14	0.0	0.0	7.738	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.90	0.22			0.90				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	12	3	480	0.025	12	0.0	0.0	7.697	A
C-AB	0	0	610	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.75	0.19			0.75				

Queue Variation Results for each time segment

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2024 No Construction , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

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)	Run automatically
D7	2024 No Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	3	100.000
B - Site Entrance		ONE HOUR	✓	0	100.000
C - Profile Park (SW)		ONE HOUR	✓	3	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	3
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	3	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	51
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2024 No Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	F

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)	Run automatically
D8	2024 No Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	1	100.000
B - Site Entrance		ONE HOUR	✓	0	100.000
C - Profile Park (SW)		ONE HOUR	✓	1	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	1
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	0	0
	B - Site Entrance	0	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	709	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	612	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2024 With Construction , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		3.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.48	A

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)	Run automatically
D9	2024 With Construction	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	17	100.000
B - Site Entrance		ONE HOUR	✓	5	100.000
C - Profile Park (SW)		ONE HOUR	✓	3	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	15	2
	B - Site Entrance	5	0	0
	C - Profile Park (SW)	3	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	33	46
	B - Site Entrance	100	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	11.43	0.0	0.5	B	5	7
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						14	21
A-C						2	3

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.012	4	0.0	0.0	11.347	B
C-AB	0	0	608	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	11	3			11				
A-C	2	0.38			2				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.014	4	0.0	0.0	11.383	B
C-AB	0	0	607	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	13	3			13				
A-C	2	0.45			2				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	1	320	0.017	5	0.0	0.0	11.431	B
C-AB	0	0	606	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	17	4			17				
A-C	2	0.55			2				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	1	320	0.017	6	0.0	0.0	11.431	B
C-AB	0	0	606	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	17	4			17				
A-C	2	0.55			2				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.014	5	0.0	0.0	11.384	B
C-AB	0	0	607	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	13	3			13				
A-C	2	0.45			2				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	4	1	321	0.012	4	0.0	0.0	11.352	B
C-AB	0	0	608	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	11	3			11				
A-C	2	0.38			2				

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2024 With Construction , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		4.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.97	A

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)	Run automatically
D10	2024 With Construction	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Profile Park (NE)		ONE HOUR	✓	6	100.000
B - Site Entrance		ONE HOUR	✓	15	100.000
C - Profile Park (SW)		ONE HOUR	✓	1	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	5	1
	B - Site Entrance	15	0	0
	C - Profile Park (SW)	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Profile Park (NE)	B - Site Entrance	C - Profile Park (SW)
From	A - Profile Park (NE)	0	100	0
	B - Site Entrance	33	0	0
	C - Profile Park (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.03	7.71	0.0	0.5	A	14	21
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						5	7
A-C						0.92	1

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	483	0.023	11	0.0	0.0	7.620	A
C-AB	0	0	610	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.75	0.19			0.75				

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	483	0.028	13	0.0	0.0	7.660	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.90	0.22			0.90				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	4	483	0.034	16	0.0	0.0	7.714	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	6	1			6				
A-C	1	0.28			1				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	4	483	0.034	17	0.0	0.0	7.714	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	6	1			6				
A-C	1	0.28			1				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	483	0.028	14	0.0	0.0	7.661	A
C-AB	0	0	609	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.90	0.22			0.90				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	483	0.023	11	0.0	0.0	7.623	A
C-AB	0	0	610	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	4	1			4				
A-C	0.75	0.19			0.75				

Queue Variation Results for each time segment

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A