M1 Business Park – Zones A & F

Environmental Impact Assessment Report

Volume 3: Appendices 11-14

M1 Vida Ltd

April 2024

Appendix 11: Landscape Visual Impact Assessment - Photomontages

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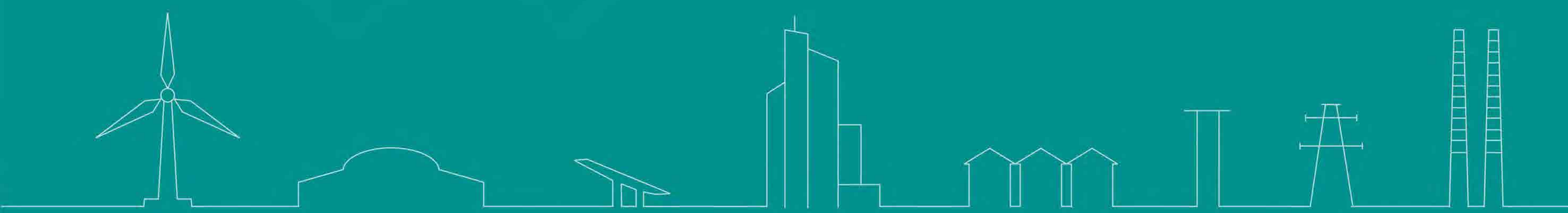
LVIA PHOTOMONTAGES

M1 Business Park Zone A and F Enabling Works
Rowans, Balbriggan, Co. Dublin

This book contains imagery for the viewpoints chosen for the LVIA study

December 2023



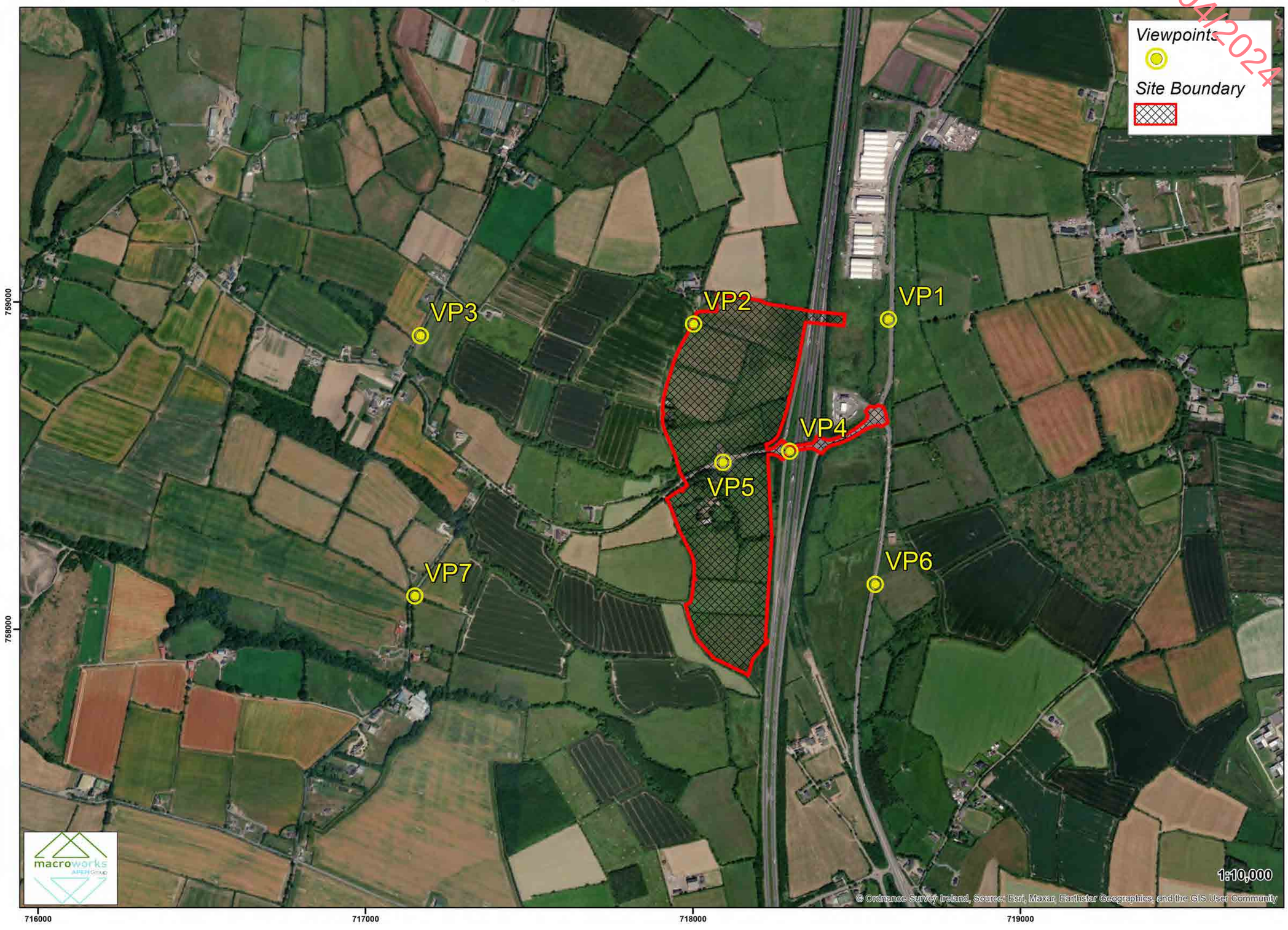
LVIA I TVIA I Landscape Design I Visibility Analysis I Glint and Glare I Verified Photomontages I CGI I Shadow Flicker Analysis

INDEX

***NB - There is no Montage View for this viewpoint as the proposed development is completely screened by existing vegetation and/or landform**

****NB - There is no Outline or Montage View for this viewpoint as the proposed development is completely screened by landform**

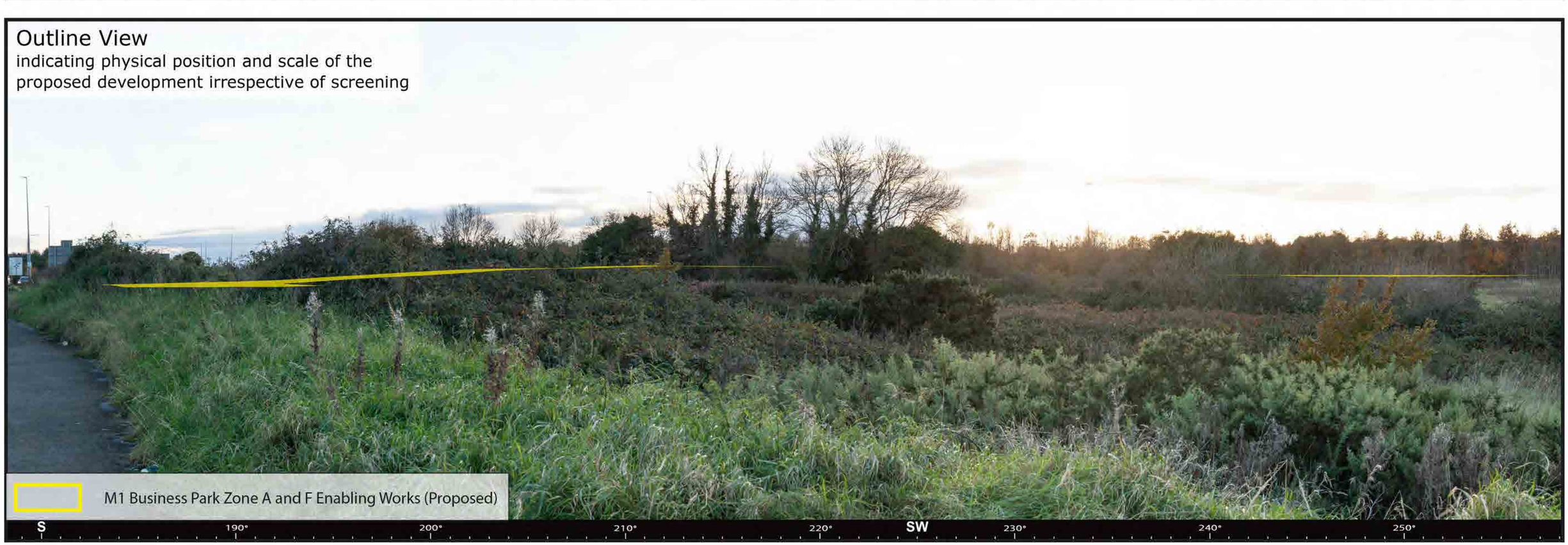
Viewpoint locations selected for the M1 Bussiness Park project



M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing and Outline)

R132 at Courtlough VP1



These are 80° panoramic montages captured and presented in accordance with the guidance set by the British Landscape Institute 2011 - Advice Note 01/11.

To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM):	718598	Lens:	50mm / Full Frame Sensor	Date:	10/11/2023
Northing (ITM):	758947	Camera:	Canon 1-D Mark II digital SLR	Time:	15:52
Direction of View	142° W of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	80°				

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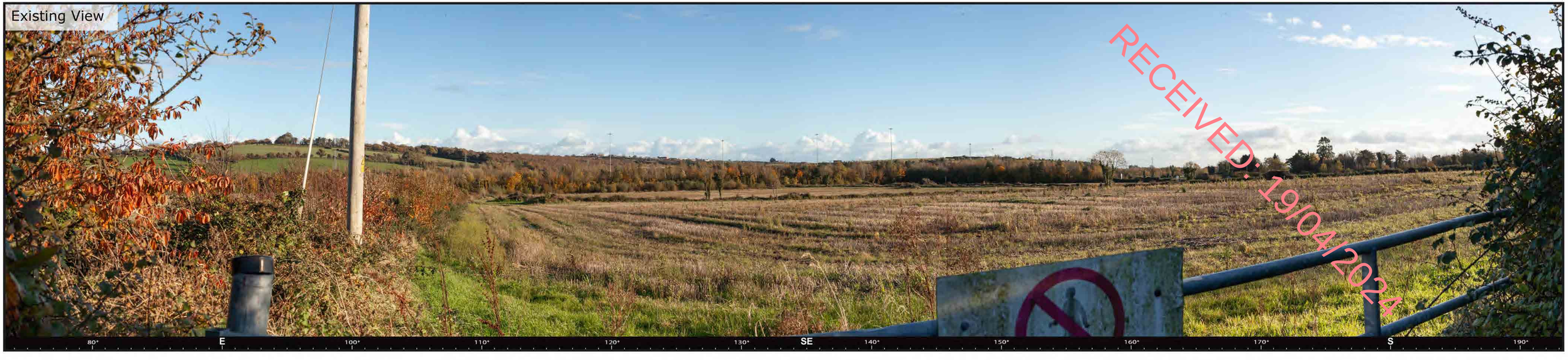
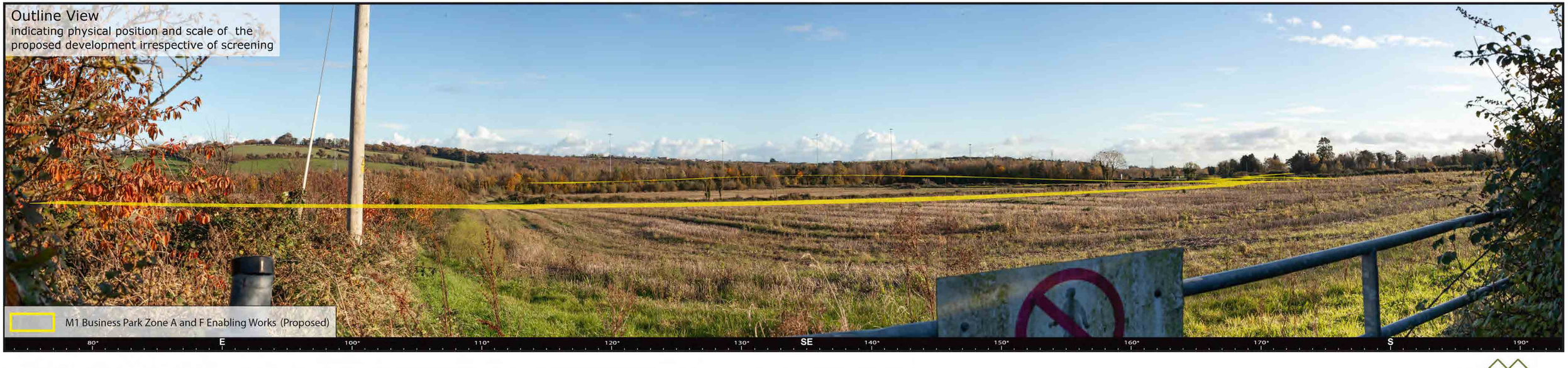
M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing and Outline)

Local road at Rowans Big VP2





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Northing (ITM):	758932	Camera:	Canon 1-D Mark II digital SLR	Time:	15:00
Direction of View	133° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Montage)

Local road at Rowans Big VP2

These are 120° panoramic montages captured and presented in accordance with the guidance set by the British Landscape Institute 2011 - Advice Note 01/11.

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Easting (ITM):	718002	Lens:	50mm / Full Frame Sensor	Date:	10/11/2023
Northing (ITM):	758932	Camera:	Canon 1-D Mark II digital SLR	Time:	15:00
Direction of View	133° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing)

Local road at Walshestown VP3

Please Note: There is no Outline or Montage view for this viewpoint as the proposed development is completely screened by terrain.

These are 80° panoramic montages captured and presented in accordance with the guidance set by the British Landscape Institute 2011 - Advice Note 01/11.

To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

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Northing (ITM):	758897	Camera:	Canon 1-D Mark II digital SLR	Time:	14:42
Direction of View 113°	E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	80°				

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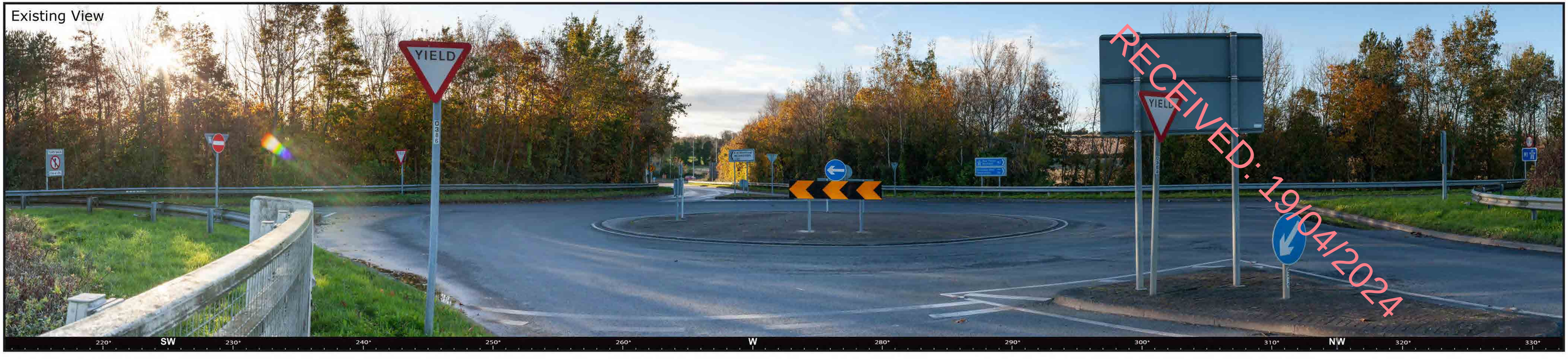
M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing and Outline)

R132 at M1 overpass VP4a

Existing View



Outline View

indicating physical position and scale of the proposed development irrespective of screening

These are 120° panoramic montages captured and presented in accordance with the guidance set by the British Landscape Institute 2011 - Advice Note 01/11.

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Easting (ITM):	718296	Lens:	50mm / Full Frame Sensor	Date:	10/11/2023
Northing (ITM):	758544	Camera:	Canon 1-D Mark II digital SLR	Time:	15:24
Direction of View	88°W of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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Montage View

These are 120° panoramic montages captured and presented in accordance with the guidance set by the British Landscape Institute 2011 - Advice Note 01/11.

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Direction of View	88°W of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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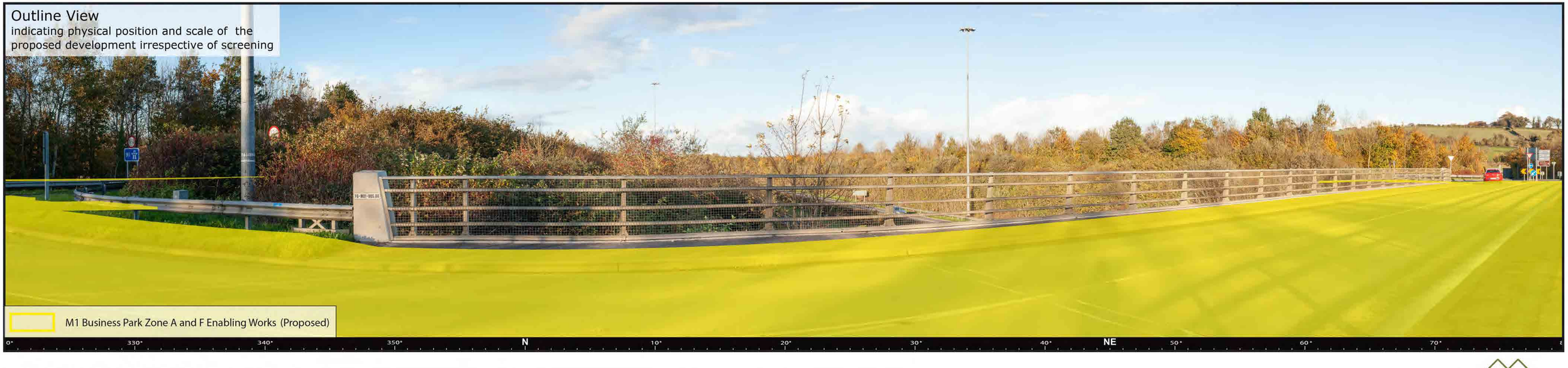
Existing View

Outline View

indicating physical position and scale of the proposed development irrespective of screening



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Northing (ITM):	758544	Camera:	Canon 1-D Mark II digital SLR	Time:	15:24
Direction of View	20° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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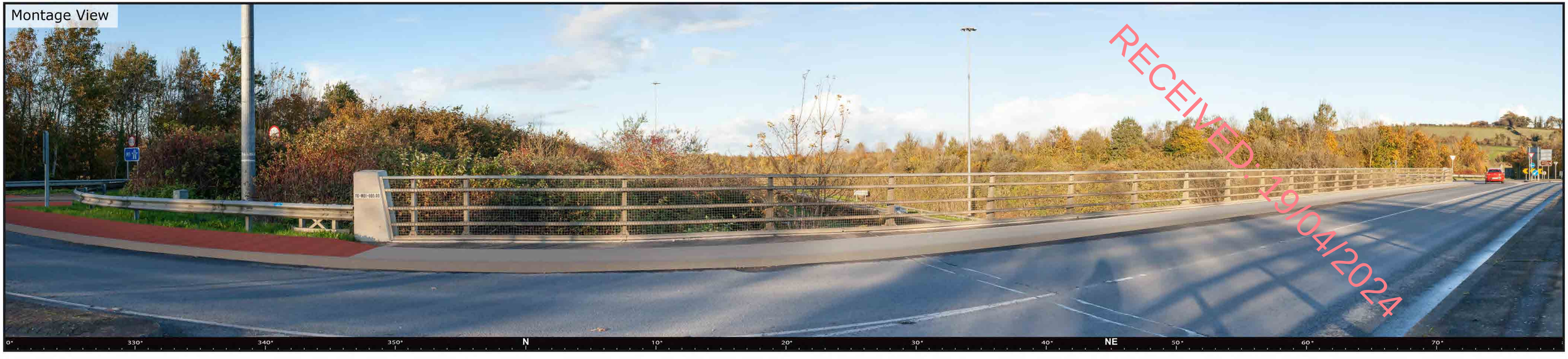

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Northing (ITM):	758544	Camera:	Canon 1-D Mark II digital SLR	Time:	15:24
Direction of View	20° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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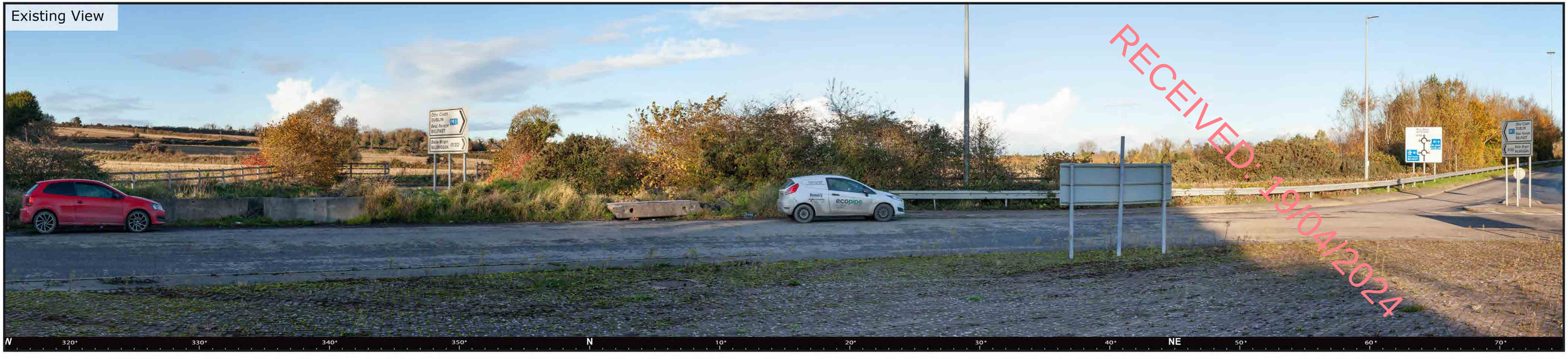
M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing and Outline)

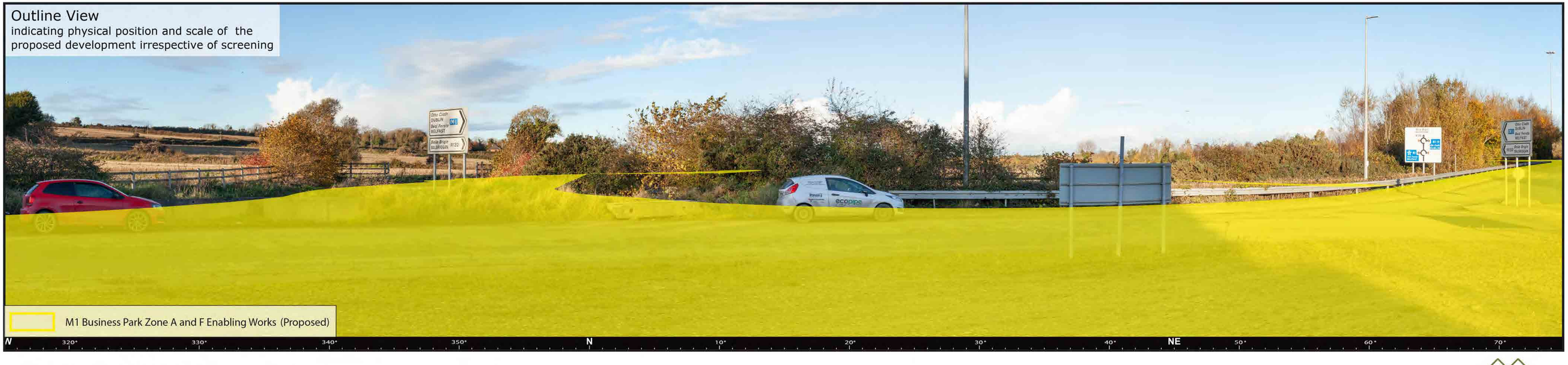
L1140 at Rowans Little VP5a

Existing View



Outline View

indicating physical position and scale of the proposed development irrespective of screening



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Easting (ITM):	718092	Lens:	50mm / Full Frame Sensor	Date:	10/11/2023
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Direction of View	15° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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Montage View

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Northing (ITM):	758510	Camera:	Canon 1-D Mark II digital SLR	Time:	15:14
Direction of View	15° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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Existing View

Outline View

indicating physical position and scale of the proposed development irrespective of screening

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Northing (ITM):	758510	Camera:	Canon 1-D Mark II digital SLR	Time:	15:14
Direction of View	135° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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Montage View

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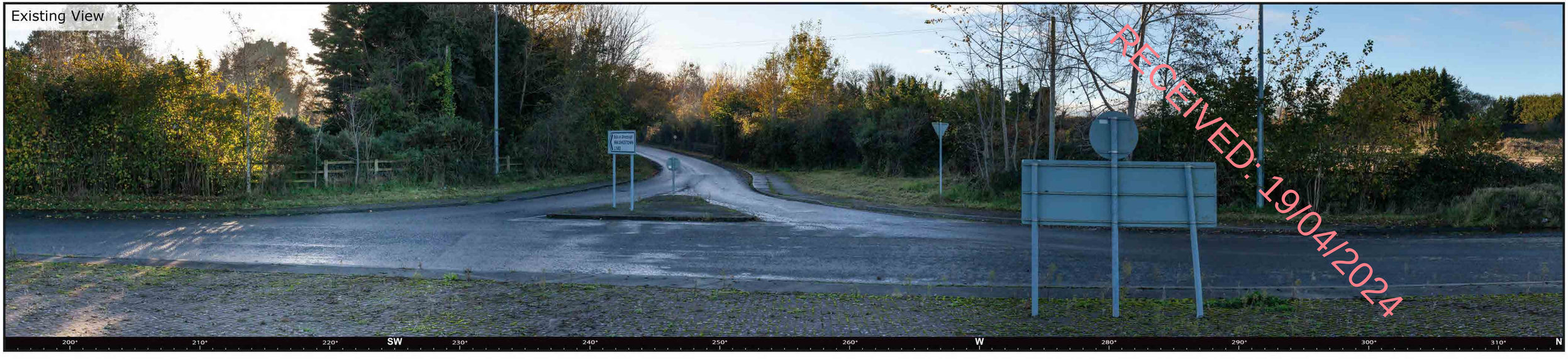
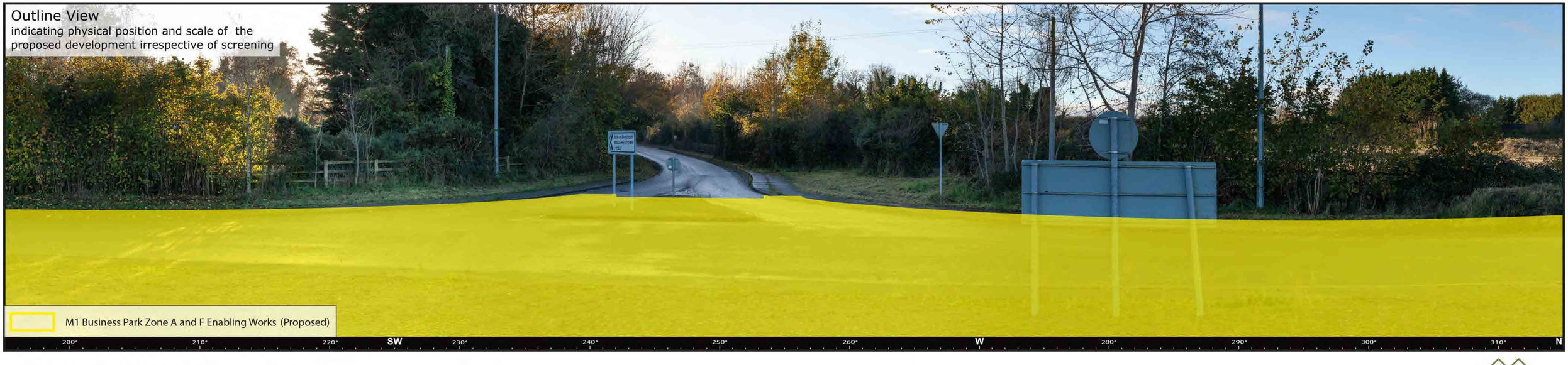
Existing View



Outline View
indicating physical position and scale of the proposed development irrespective of screening



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Northing (ITM):	758510	Camera:	Canon 1-D Mark II digital SLR	Time:	15:14
Direction of View	105°W of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Montage)

L1140 at Rowans Little VP5c

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Northing (ITM):	758510	Camera:	Canon 1-D Mark II digital SLR	Time:	15:14
Direction of View	105°W of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	120°				

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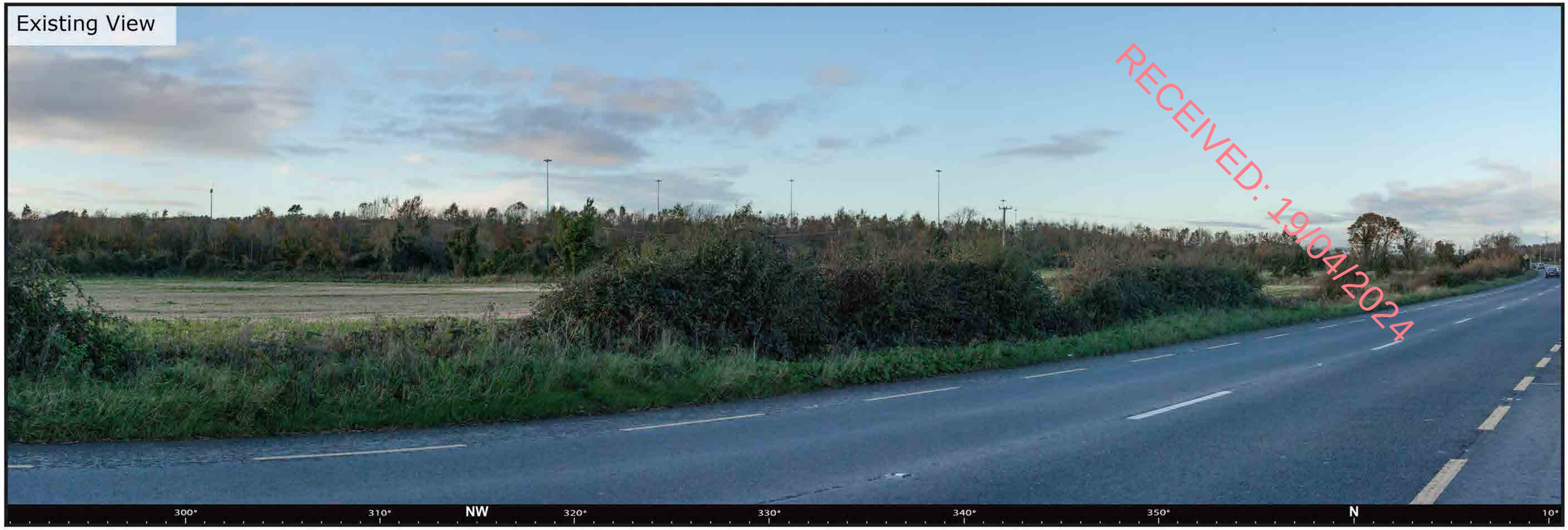
M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing and Outline)

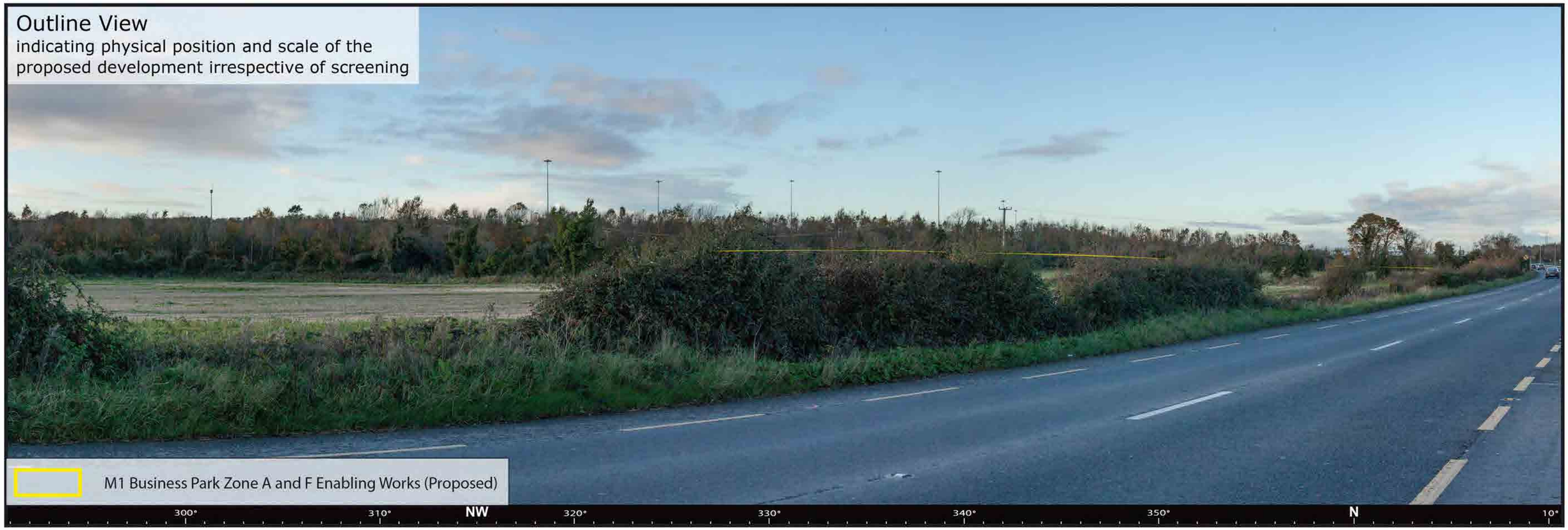
R132 at Hedgestown VP6

Existing View



Outline View

indicating physical position and scale of the proposed development irrespective of screening



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Direction of View	29° W of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	80°				

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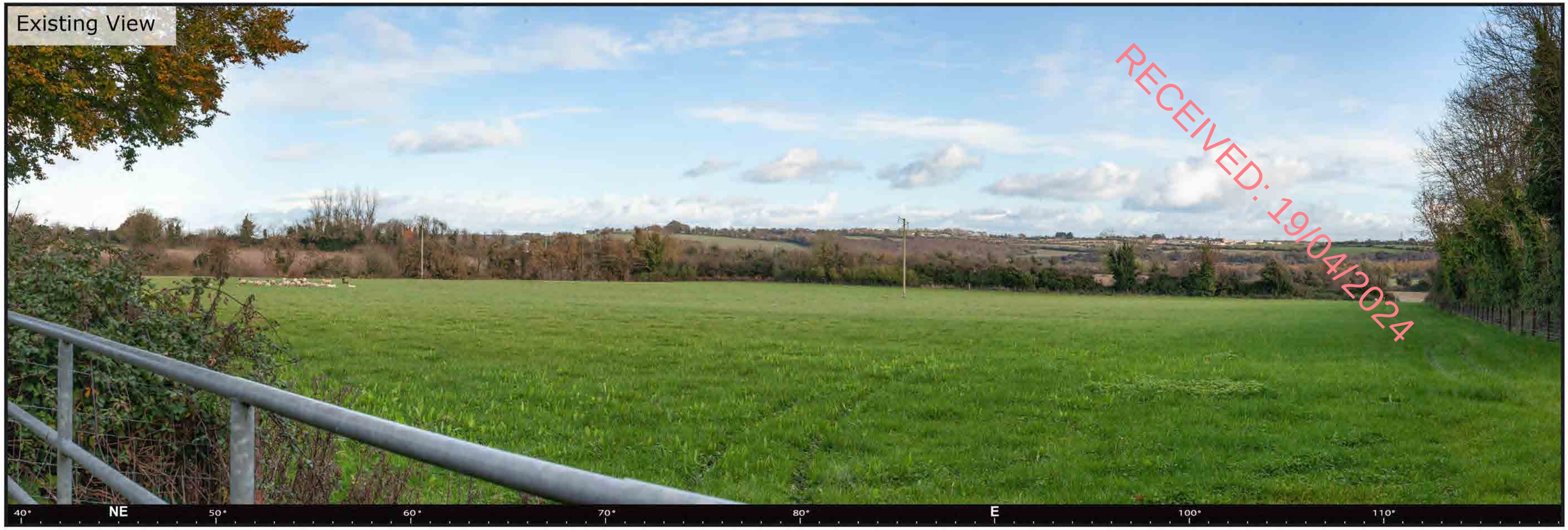
M1 Business Park Zone A and F Enabling Works

Imagery depicting the view towards the site (Existing)

Tooman local road at Walshestown VP7



Please Note: There is no Outline or Montage view for this viewpoint as the proposed development is completely screened by terrain.

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Northing (ITM):	758102	Camera:	Canon 1-D Mark II digital SLR	Time:	14:35
Direction of View	79° E of Grid North	Camera Height:	1.7m Above Ground Level		
Angle of View:	80°				

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Appendix 12: Traffic and Transport

Clifton Scannell Emerson Associates

Traffic & Transport Assessment

M1 Business Park – Zones A & F

Client: Vida M1 Limited

Date: March 2024

Job Number: 16_206A

CONSULTING ENGINEERS

Civil Engineering | Structural Engineering | Transport Engineering | Environmental Engineering | Project Management | Health and Safety

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Document Control Sheet

Project Name:	M1 Business Park – Zones A & F
Project Number:	16_206A
Report Title:	Traffic & Transport Assessment
Filename:	RPT-16_206A-006

Issue No.	Issue Status	Date	Prepared by	Checked by
0	Planning Issue	28/03/2024	FFS	LP

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1 Introduction

1.1 Overview

Clifton Scannell Emerson Associates (CSEA) have been appointed by Vida M1 Limited to prepare this Traffic & Transport Assessment (TTA) in support of a planning application for the construction of the civil infrastructure to service future-planned developments on lands situated along the M1 Motorway - near Junction 5, in the Townlands of Rowans Big and Rowans Little, Fingal County Council (FCC).

1.2 Site Location

The subject lands, covering an area of 33.81 hectares, is situated to the west of the M1 motorway approximately 5.5km northeast of Lusk and 5.5km southwest of Balbriggan.

The Bhailsigh Road (L1140), bisects the site in an east-west direction and divides the lands into two zones. The northern portion, situated in Rowans Big Towland is designated as Zone A and the southern portion, in Rowans Little Townlands is designated as Zone F.

Within the subject red line boundary L1140 features an existing roundabout which currently provides the access to both Zones.

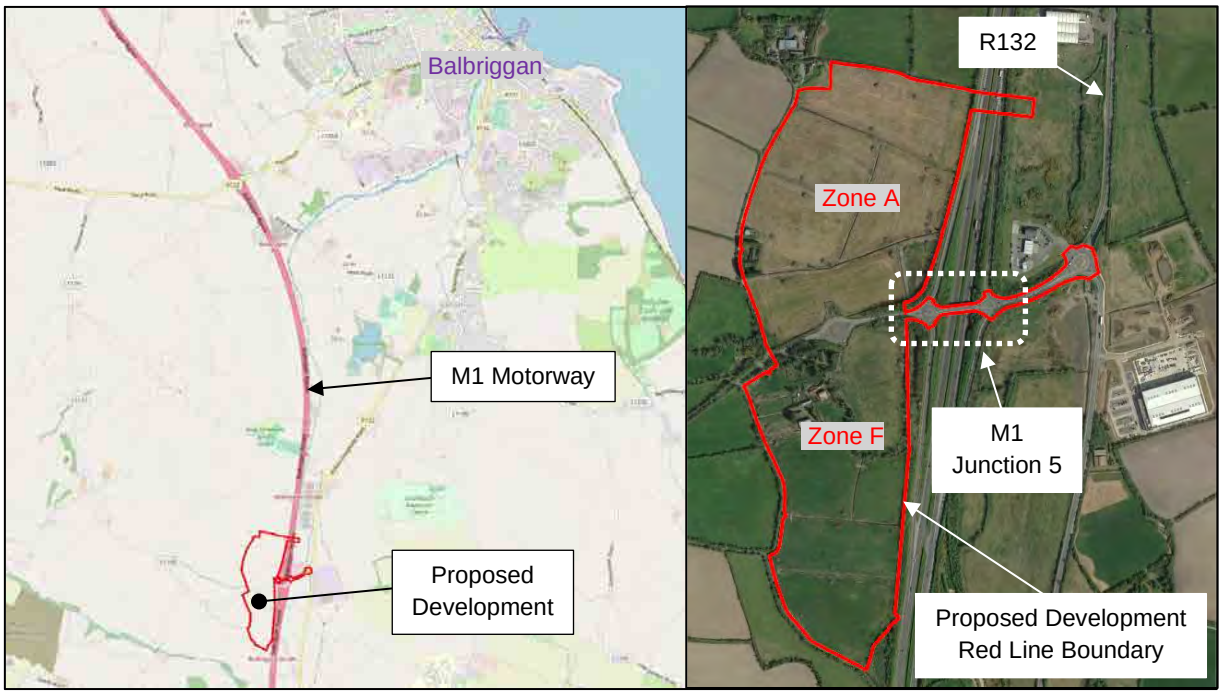


***Figure 1.1** Site Location.*

1.3 Proposed Development Description

The proposed development consists of:

- Demolition of a single-storey 200-square-metre (m²) house, an abandoned water storage reservoir and associated pump stations, all located on the western boundary of Zone A;
- Demolition of 13 No. existing buildings consisting of agricultural sheds, stables, warehouses and residential dwellings located in Zone F;
- Provision of civil infrastructure to service future-planned commercial properties on the lands located on the western side of the M1 Business Park and M1 motorway, referred to as Zone A and F.

- Zone A and F lands are located north and south of Bhailsigh Road (L1140), respectively, which connect to Junction 5 of the M1 Motorway and are located in the townlands of Rowan's Big and Rowan's Little.
- Preparation of indicative Masterplan for Zone A and F which contains layouts of the future planned commercial properties, consisting of mixed-use, warehousing and distribution units including associated loading bays for HGVs, service compounds, ESBN substations and parking areas to service each commercial unit site, which would be subject to individual planning permission applications.
- Provision of civil infrastructure designed to service various mixed-use buildings consisting of 20k- to 105k-square-feet (ft^2) units with the potential to combine plots should larger units be required.
- In Zone A and F, the civil infrastructure will consist of primary access roads including pedestrian/cycle paths, watermains, surface water and foul drainage networks. utility ducting for services consisting of power and telecommunications.
- The primary access roads into Zone A and F will consist of 7.5-metre-wide single-carriageways originating from Bhailsigh Road (L1140) roundabout including segregated cycle tracks and pedestrian footpaths with associated verges.
- Upgrading of the existing Balrickard stream crossing located in Zone F in accordance with the Office of Public Works Section 50 of the Arterial Drainage Act (1945), guidelines.
- Individual access spurs will be provided from the primary access road to each of the future-planned commercial land parcels.
- Provision of pipelines and associated infrastructure for watermains to service future-planned commercial properties and
- Provision of surface water drainage infrastructure for the access road and associated infrastructure consisting of Sustainable Urban Drainage Systems features such as attenuation ponds, raingardens, bioretention ponds, Nature-based Solutions (NBS) and conveyance networks.

A plan layout drawing of the proposed development is shown on CSEA Drawing 16_206A-CSE-GEN-XX-DR-C-1610 accompanying the documentation package which is reproduced in Figure 1.2.

Figure 1.2 *Proposed Development Plan Layout.*

1.4 Scope of the TTA

The development proposed as part of the subject planning application is solely related to the construction of the civil infrastructure to service future-planned commercial buildings. The commercial buildings themselves will be subject to future planning applications.

Even though the commercial buildings are not currently proposed, the potential transport impacts associated with them have been considered in this assessment. This TTA provides a comprehensive review of all the potential transport impacts associated with the overall development during both construction and operational phases.

The construction phase assessment specifically addresses the transportation effects associated with the construction of the proposed civil infrastructure outlined in this application, while the operational phase relates to the potential future transportation impacts associated with the operation of the future-planned commercial buildings.

This TTA includes a detailed assessment of the local transportation system servicing the area and discusses the transport impacts on the surrounding transportation network. In addition, this report also discusses the accessibility of the site and outlines proposals for active travel access enhancement.

1.5 Standards

This TTA has been prepared in accordance with the standards set out in the Traffic and Transport Assessment Guidelines published by the Transport Infrastructure Ireland (TII) / National Road Authority (NRA) in May 2014 – TII Publications PE-PDV-02045.

1.6 Intended Year of Opening

It is estimated that the proposed development (civil infrastructure to serve future-planned commercial buildings) will be completed by late 2024 / early 2025. The future-planned commercial buildings, subject to future planning applications, are assumed to be operational by 2026.

1.7 Methodology

1.7.1 Relevant Documents

In preparing this report, CSEA have taken into account the following national, regional and local policy documents:

- Fingal Development Plan 2023 – 2029
- TII Traffic and Transport Assessment Guidelines, 2014.
- TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections, October 2021.
- Design Manual for Urban Roads and Streets (DMURS), 2019.
- National Planning Framework Project Ireland 2040 (NPF), 2018.
- Climate Action Plan (CAP), 2023.
- National Cycle Manual (NCM), 2023.

1.7.2 Assessment Methodology

The methodology adopted to carry out the subject assessment is detailed below:

Establishing the Receiving Environment (Baseline Conditions): The receiving environment has been described, including information on the existing site location and use, description of relevant local roads and junctions and baseline traffic volumes, local public transport services and facilities, and existing local pedestrian & cycle facilities and movements.

Describing the Development: the development has been described, including information of the civil infrastructure proposed under the subject application as well as an estimation for the potential land uses and sizes of the future-planned commercial buildings envisaged for the scheme. It also includes description of proposed access arrangements and required parking facilities; details of pedestrian/cycle facilities upgrades and proposals, and estimation of trip generation and distribution. Details of existing and target modal splits have also been included.

Assessing the Proposed Development's Impacts: the impacts of the scheme on the local road network have been assessed, including information on estimated traffic increase during construction and operational phases and detailed junction modelling utilising Junctions 10 (ARCADY) traffic modelling software. The years assessed in this TTA are Baseline Year (2023), Construction Year (2024), Operational Opening Year (2026), Operational Opening Year +5 Years (2031) and Operational Opening Year +15 Years (2041). The modelled junctions have been assessed for their critical morning and evening peak hours.

Mitigation Measures: a list of mitigation measures set to help minimise any potential traffic impact that may arise from the construction of the proposed development has been outlined. These measures are further elaborated in the Construction and Environment Management Plan report accompanying the documentation package.

1.8 Report Structure

The remainder of this TTA is structured as follows:

- **Chapter 2** provides an overview of the relevant National and Local policies.
- **Chapter 3** describes the local receiving environment, including road network infrastructure, public transport services and facilities for pedestrians and cyclists, and an overview of traffic and active modes survey data collection and analysis.
- **Chapter 4** provides details on the overall development proposed under the subject application, including descriptions of internal roads and associated active travel facilities, proposed upgrades to site access roundabout and proposed active travel facilities along the L1140.
- **Chapter 5** details the car and bicycle parking standards and requirements set out in the Fingal Development Plan 2023 – 2029.
- **Chapters 6, 7** and **8** describe the key transport-related characteristics of both the proposed development during the construction phase and the future-planned commercial buildings during the operation phase, including trip generation/distribution and modal split.
- **Chapters 9** and **10** provide details of the traffic impact assessment undertaken for both the construction and operational phases and describes the approach adopted for traffic growth forecasting as well as the traffic modelling results.
- **Chapter 11** details the additional traffic impacts that may occur during the construction phase from a noise, vibration and dust perspective as well as potential impacts on safety and amenity of other road users and provides a list of mitigation measures to help minimise their effects.
- **Chapter 12** provides an overall summary and the assessment conclusions.

2 Policy Context and Guidance

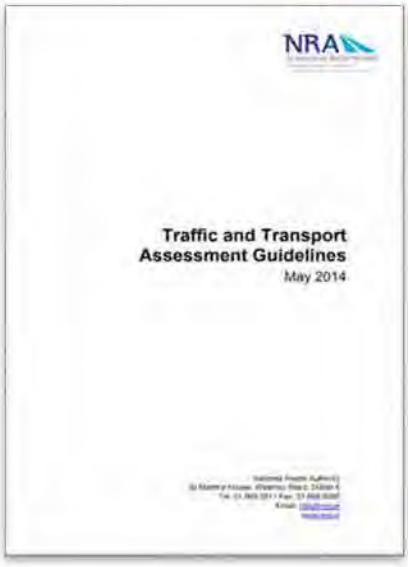
2.1 Introduction

This section presents an overview of the national and local policies considered relevant to the proposed development and the subject Traffic and Transport Assessment (TTA).

2.2 National Policies

2.2.1 Traffic and Transport Assessment Guidelines (2014)

The Traffic and Transport Assessment Guidelines, published by the Transport Infrastructure Ireland/National Roads Authority in May 2014, provides guidance and instructions for best practice with regard to the preparation of a Traffic and Transport Assessment (TTA) report.



In relation to scoping, the TTA Guidelines states:

"*The scoping study is a very important part of the TTA process. It is a precursor to the preparation of a TTA and should be undertaken at the earliest stages of planning for development.*

*For a **planning application**, this phase may be the initial contact between the developer and the planning authority and, as such, the opportunity should be taken to emphasise the role of transport as both a possible asset and liability to the development. The planning authority should avail of such contact to address traffic and transport implications as an integral element of the development proposal."*

In relation to the assessment, the TTA Guidelines states:

"The Traffic and Transport Assessment should be written as an impartial assessment of the traffic impacts of a scheme, and it should not be seen to be a "best case" promotion of the development. All impacts, whether positive or negative, should be recorded. The level of detail to be included within the report should be sufficient to enable an experienced practitioner to be able to follow all stages of the assessment process and to reach a similar set of results and conclusions."

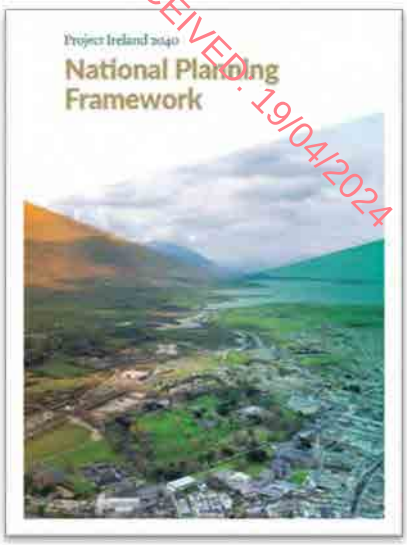
The subject planning application relates to the construction of the civil infrastructure to service future-planned commercial buildings (Distribution and Warehousing). Given that these anticipated developments are projected to exceed the 10,000 sqm of area threshold, the preparation of a TTA has been considered appropriate.

2.2.2 National Planning Framework Project Ireland 2040 (2018)

The National Planning Framework (NPF) document was published by the Government of Ireland – Department of Housing, Local Government and Heritage, in February 2018 (last updated on 2nd February 2023). It provides a planning framework strategy to guide development and investment over the coming years and sets out a number of national objectives and key principles to guide each region in the planning and development of their communities.

The NPF seeks to achieve several goals by 2040. These goals, which are referred to as National Strategic Outcomes within the framework document, include: Compact Growth; Enhanced Regional Accessibility; Strengthened Rural Economies and Communities; Sustainable Mobility; A Strong

Economy, supported by Enterprise, Innovation and Skills; High-Quality International Connectivity; Enhanced Amenities and Heritage; Transition to a Low Carbon and Climate Resilient Society; Sustainable Management of Water, Waste and other Environmental Resources; and Access to Quality Childcare, Education and Health Services.

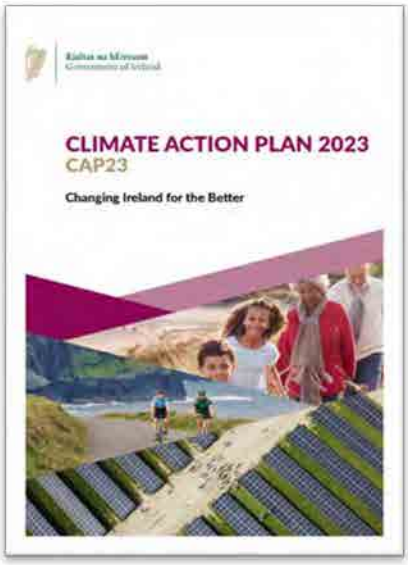


Relevant to the subject Traffic and Transport Assessment (TTA), the Sustainable Mobility goal (National Strategic Outcome 4) goal - included within the above 10 shared National Strategic Outcomes of the Framework, focuses on the provision of safe alternative active travel options to alleviate congestion and help meet climate action objectives.

National Policy Objective 27 of the National Planning Framework aims to "*ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages.*"

2.2.3 Climate Action Plan (2023)

The Climate Action Plan 2023 (CAP) contains the Irish Government's plan for tackling climate breakdown and reduce Ireland's greenhouse gas emissions. It outlines the current state of play across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture, and charts a course of action towards ambitious decarbonisation targets.



The CAP aspirations are to achieve a net zero carbon energy system and create a resilient, vibrant, and sustainable country, with modal shift to public transport presented as one of the transport related objectives. *The Climate Action and Low Carbon Development (Amendment) Act 2021 commits Ireland to reach a legally binding target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels). Under the 2021 Act, Ireland's national climate objective requires the State to pursue and achieve, by no later than the end of the year 2050, the transition to a climate-resilient, biodiversity rich, environmentally sustainable, and climate-neutral economy.*

The Plan commits to expanding sustainable mobility options to provide meaningful alternatives to everyday private car journeys to reduce transport emissions. It is the goal to provide continued and enhanced investment in our walking, cycling and public transport infrastructure and services across the country.

In terms of active travel, the Programme for Government includes a commitment of €360 million per year to cycling and pedestrian projects for the lifetime of the Government. The role of Local Authorities is critical in delivering these programmes.

Table 15.7 of the CAP details the "*Key Actions to Deliver Abatement in Transport for the Period 2023-2025*", which, in terms of Active Travel Infrastructure Programme, include the advance roll-out of 1,000km walking/cycling infrastructure and advance roll-out of National Cycle and Greenway Network. In addition, the transport actions listed on the CAP aim to support the delivery of major transportation

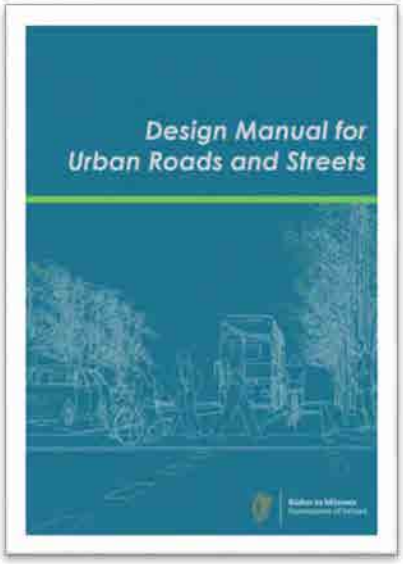
projects, such as BusConnects and Dart+ Programme, as well as the electrification of bus fleet and the use of renewable fuels for transport.

The CAP also looks to *"promote the use of bicycles (including push bikes, electric bikes, and cargo bikes) and shared mobility options as an alternative to car use among employees and visitors by creating and maintaining facilities (both inside and outside of buildings) that support such options, including secure and accessible bicycle parking, shared mobility parking, and charging stations."*

This Plan promotes the electrification of the public and private vehicle fleet aiming to reduce the overall emissions and decarbonisation of the transport sector. It is the objective of the Plan to have an expected 30% of our private car fleet having switched to electric vehicles by 2030.

2.2.4 Design Manual for Urban Roads and Streets (2019)

The Design Manual for Urban Roads and Streets (DMURS) was jointly published by the Department of Transport, Tourism and Sport and the Department of Environment, Community and Local Government in 2013, and updated in 2019. The principles, approaches and standards set out in DMURS apply to the design of all urban roads and streets (with a speed limit of 60 km/ h or less).



DMURS outlines the principles, approaches and standards that are necessary to achieve balanced, best practice design outcomes with regard to street networks and individual streets.

This Manual sets out an integrated design approach influenced by the type of place in which the street is located and balance the needs of all users. It also aims to put well designed streets at the heart of sustainable communities creating physical, social and transport networks that promote real alternatives to car journeys, namely walking, cycling and public transport. The manual key design principles are as follows:

- *"To support the creation of integrated street networks, which promote higher levels of permeability and legibility for all users, and in particular more sustainable forms of transport.*
- *The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment.*
- *The quality of the street is measured by the quality of the pedestrian environment.*
- *Greater communication and co-operation between design professional through the promotion of a plan-led, multidisciplinary approach design".*

User Priorities

Section 2.2.2 of DMURS discusses users' hierarchy that must be implemented in the design process.

To encourage more sustainable travel patterns and safer streets, DMURS establishes that designers must place pedestrians at the top of the user hierarchy (consider first), followed by cyclists, then public transport, and lastly private motor vehicles (consider last).

Footways and Verges Design

Section 4.3.1 of DMURS establishes the following design guidelines for the design of footpaths and verges:

- *"Minimum footway widths are based on the space needed for two wheelchairs to pass each other (1.8m). In densely populated areas and along busier streets, additional width must be provided to allow people to pass each other in larger groups.*
- *The footway should be maintained at a consistent width between junctions and should not be narrowed to accommodate turning vehicles.*
- *Designers should also ensure that the design of vehicle crossovers clearly indicate that pedestrians and cyclists have priority over vehicles.*
- *There is no minimum requirement for verges on Local Streets, but designers may need to provide space to prevent any encroachment of street furniture into the footway.*
- *Where on-street parking is provided, a verge (and change in kerb line) may be needed on approaches to junctions to enforce the visibility splays.*
- *A verge should be provided where cycle tracks are located adjacent to parking spaces.*
- *A verge (minimum of 0.3m) should be provided in areas of perpendicular parking where vehicles may overhang the footway".*

Pedestrian Crossings

Section 4.3.2 of DMURS establishes the principles to design pedestrian crossings. The following must be considered in the design of such:

- "*Local streets, due to their lightly trafficked/low-speed nature, generally do not require the provision of controlled crossings. The provision of drop kerbs will generally suffice. However, zebra crossings or courtesy crossings should be considered where pedestrian demands are higher such as around Focal Points.*
- *The location and frequency of crossings should align with key desire lines and be provided at regular intervals.*
- *Provide pedestrian crossing facilities at junctions and on each arm of the junction.*
- *Minimise corner radii so that crossing points are located closer to corners on pedestrian desire lines.*
- *Provide regular mid-block crossings in areas of higher pedestrian activity where the distance between junctions is greater than 120m.*
- *Allow pedestrians to cross the street in a single, direct movement.*
- *Providing a refuge island (minimum of 2m) for those who are unable to make it all the way across in a reasonable time.*
- *The minimum width of all other pedestrian crossings should be 2m; The minimum width for Toucan crossings should be 4m*."

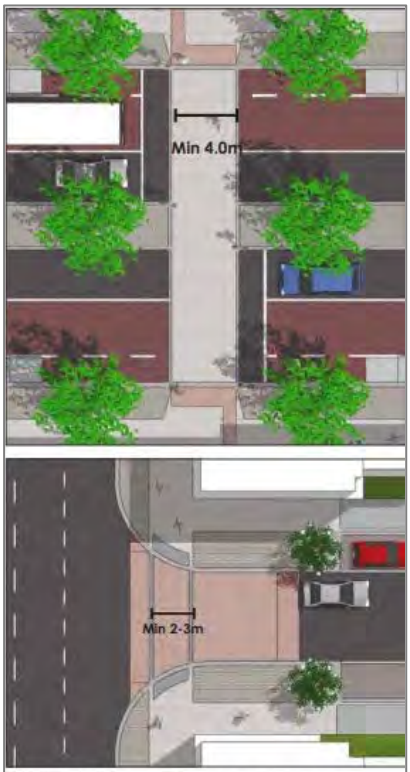
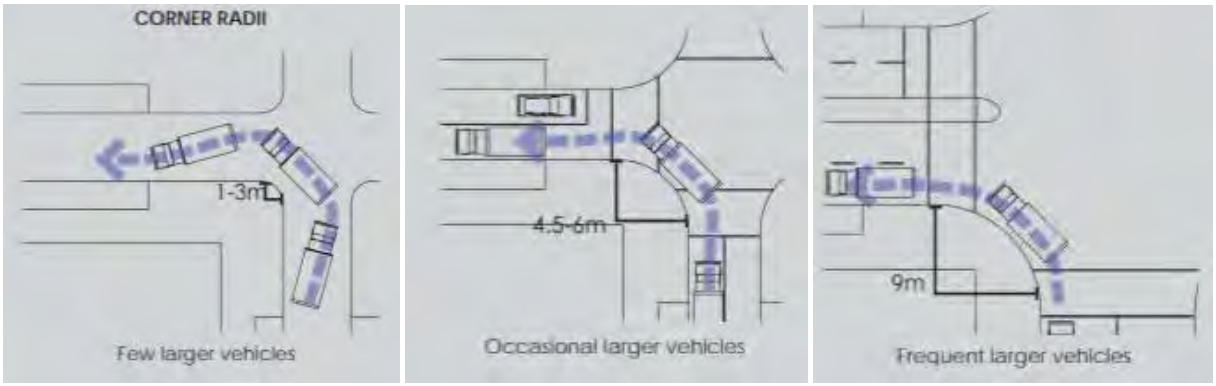


Figure 4.41: Standard crossing widths to be used in most circumstances across the main carriageway of Access or Link streets and across side junctions with Local streets.

Junction Design

In relation to corner radii, Section 4.3.3 of DMURS establishes the following:

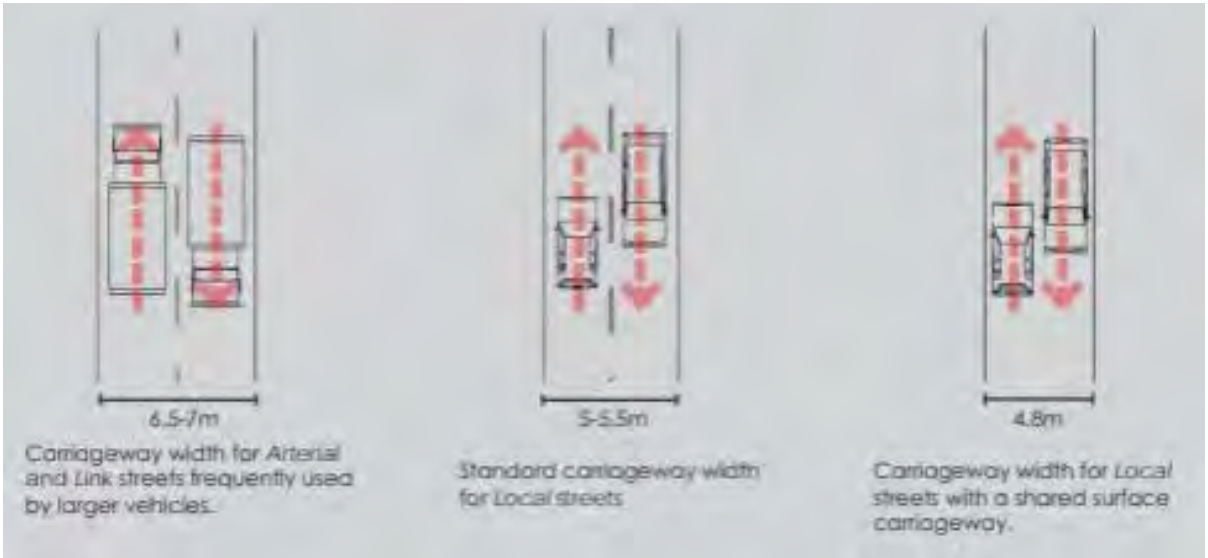
- *"Reducing corner radii will significantly improve pedestrian and cyclist safety at junctions by lowering the speed at which vehicles can turn corners and by increasing inter-visibility between users.*
- *Where turning movements occur from an Arterial or Link Street into a Local Street corner radii may be reduced to 4.5m.*
- *Where design speeds are low and movements by larger vehicles are infrequent, such as on Local streets, a maximum corner radii of 1-3m should be applied.*
- *In circumstances where there are regular turning movements by articulated vehicles, the corner radii may be increased to 9m."*



Carriageway Widths

With regard to carriage width, Section 4.4 Sets out the following principles:

- "*The standard lane width on Arterial and Link Streets should lie in the range of 2.75m to 3.5m. Within this range the preferred values are 3.0m and 3.25m*
- *The standard carriageway width on Local streets should be between 5.0 to 5.5m.*
- *Where additional space on Local streets is needed to accommodate additional manoeuvrability for vehicles entering/ leaving perpendicular parking spaces, this should be provided within the parking bay and not on the vehicle carriageway."*



Forward Visibility and Visibility Splays

Forward Visibility, also referred to as Forward Sight Distance (FSD), is the distance along the street ahead which a driver of a vehicle can see. The minimum level of forward visibility required along a street for a driver to stop safely, is based on the Stopping Sight Distances (SSD). The DMURS Stop Sight Distances (SSD) standards are shown below - extracted from Table 4.2 of DMURS.

SSD STANDARDS

Design Speed (km/h)	SSD Standard (metres)
10	7
20	14
30	23
40	33
50	45
60	59

Forward Visibility

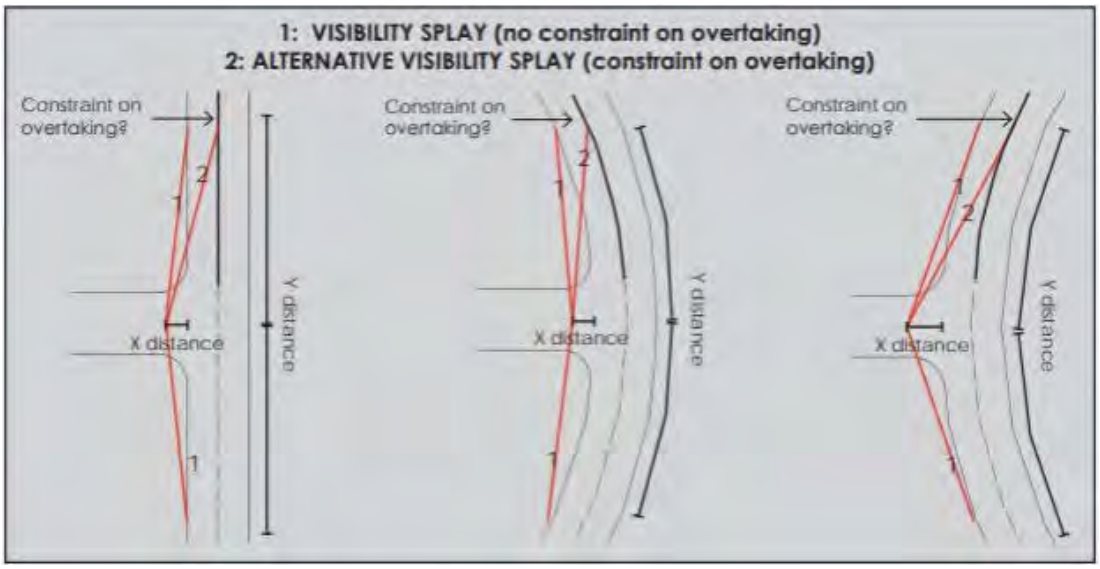
Design Speed (km/h)	SSD Standard (metres)
10	8
20	15
30	24
40	36
50	49
60	65

Forward Visibility on Bus Routes

Visibility splays are included at junctions to provide sight lines along the intersected street to ensure that drivers have sufficient reaction time should a vehicle enter their path. Visibility splays are applied to priority junctions where drivers must use their own judgement as to when it is safe to enter the junction. Junction visibility splays are composed of two elements:

The X distance is the distance along the minor arm from which visibility is measured. It is normally measured from the continuation of the line of the nearside edge of the major arm, including all hard strips or shoulders. Priority junctions in urban areas should be designed as Stop junctions, and a maximum X distance of 2.4 metres should be used.

The Y distance is the distance a driver exiting from the minor road can see to the left and right along the major arm. It is normally measured from the nearside kerb or edge of roadway where no kerb is provided. The Y distance along the visibility splay should correspond to the SSD for the design speed of the major arm.



Extracted from Figure 4.63 of DMURS.

In general, junction visibility splays should be kept clear of obstructions, however, objects that would not be large enough to wholly obscure a vehicle, pedestrian or cyclist may be acceptable providing their impact on the overall visibility envelope is not significant.

Slim objects such as signs, public lighting columns and street trees may be provided, but designers should be aware of their cumulative impact. Street furniture, such as seats and bicycle stands may also be acceptable, subject to being sufficiently spaced. Splays should generally be kept free of on-street parking, but flexibility can be shown on lower speed streets with regard to minor encroachments. Pedestrian guardrails can cause severe obstruction of visibility envelopes, and the use of guardrails should be avoided.

Traffic Calming

Section 3.4.2 of DMURS states that more frequent minor junctions with fewer vehicle movements calm traffic and are easier for pedestrians and cyclists to navigate. Where vehicle movement priorities are low, such as on Local Streets, lower speed limits should be applied (30km/h).

Section 4.4.7 of DMURS discusses the use of horizontal and vertical deflections. Horizontal or vertical deflections are changes that occur within the alignment of the carriageway to slow vehicles by requiring drivers to slow and navigate obstacles.

Horizontal deflections are particularly effective when considered at the network level and used in combination with restrictions in forward visibility.

Raised tables or platforms (vertical deflection measures) may be placed strategically throughout a network to promote lower design speeds, slow turning vehicles at junctions and enable pedestrians to cross the street at grade. Key locations where these should be considered include:

- On longer straights where there is more than 70m between junctions.
- At equal priority junctions.
- At entrance treatments where Local Streets meet Arterial and Link Streets.
- At pedestrian crossings.
- To reinforce a change between design speeds

Multidisciplinary Design Processes

Section 5.3 of DMURS states that the formation of a multi-disciplinary team is critical for the assessment of any project. Whilst the formal assessment and consent process for different design projects may vary, it is essential that they have multi-disciplinary input so that they can be fully assessed against the broad range of principles, approaches and standards contained within DMURS, particularly where any conflicts of place and movement may arise. To assist this process, it is recommended that multi-disciplinary professional teams within planning authorities work together as a cohesive unit.

It is also recommended that designers undertake pre-planning meetings where a design is to be submitted to a local authority. Both the design team and the local authority should ensure that this occurs within a multidisciplinary environment to ensure that a broad range of issues are considered.

Auditing

Section 5.4 highlights the relevance of undertaking Road Safety Audits and Quality Audits to demonstrate that appropriate consideration has been given to all the relevant aspects of the design.

2.2.5 National Cycle Manual (2023)

The National Cycle Manual (NCM), published by the National Transport Authority (NTA) in September 2023, sets out detailed guidance on how to implement new cycle facilities on all road and junction types and environments, as well as provides guidance to planners and engineers on how to improve cycling provision in urban areas.

In traffic terms, cycling is considered a vulnerable mode of transport. As a result of this, and in order to make cycle infrastructure more reliable and safer for the various needs of people who cycle and also to attract new cycle users, Section 2.1 of the NCM sets out 'Five Main Requirements for Cycle-friendly Infrastructure' to consider when designing cycle facilities:

i. Safety – "*Actual Safety: Cycle facilities should be designed so that they are safe for people of all ages and abilities to use." and "Perceived Safety: Cycle facilities should be perceived as to be safe i.e. people must feel safe using them. Facilities should generally be designed so that less confident users would feel safe using them*."

ii. Coherence – "*At a network level, cycle routes should be connected and easy to navigate. Any weak links could deter new or less confident users to cycle and render a whole journey inaccessible for some people. Clear signing and wayfinding can be particularly important in minor road routes as well as at large or complex junctions, and useful for new users and visitors to navigate*."

iii. Directness – "*Ideally cycle routes should connect origins and destinations using the shortest route with as little delay as possible, which includes providing facilities at junctions to minimise delay and the need to stop. Enabling cyclists to maintain momentum is an important aspect of directness. It is sometimes advantageous, however, to avoid steep gradients or major junctions by using an alternative route that is slightly longer but more convenient. To be attractive, cycle routes should be more direct than private motor vehicle routes."*

iv. Comfort – "*Anything that causes unnecessary discomfort or delay is likely to reduce the attractiveness of the facility. There are a number of factors that influence the comfortableness of a facility, including: Width, Gradients, Stoppages and Delays, Surfacing, Shelter and Maintenance*."

v. Attractiveness – "*The cycling environment along a route should ideally be as pleasant and interesting as possible. Cycle routes through high-quality urban environment, parks and waterfront locations are typically some of the most attractive cycling environments. The use of horizontal buffers between the cycle facilities and carriageways can also significantly improve attractiveness of a route. Regular maintenance is very important to maintain attractiveness of the cycle facilities."*

Section 2.2 of the NCM details six Key Design Principles that should also be adhered when designing cycle facilities, which include: Safe system approach, Promoters of cycle facilities should cycle, Network approach, Segregation, Everyday mobility and Universal and Inclusive Mobility.

<u>Universal Design Vehicle</u>

Section 2.3 of the NCM states that to ensure cycle facilities are accessible to all users, they must be designed to cater for all the different types of cycle vehicles.

As these vehicles come in different shapes and sizes, NCM have established the concept of 'Universal Design Cycle', which represents a composite of all cycle that may reasonably use the cycle network and should be used for design purposes. The dimensions of the 'Universal Design Cycle' are 2.8m long and 1.2m wide.

Types of Cycle Links

Section 2.4 of the NCM provides an overview of the various types of cycle links that may be used. These are reproduced below:

Standard Cycle Track – "*Segregated cycle facilities that are separated from vehicular traffic by a full height kerb. A buffer may be located between the carriageway and cycle track. Suitable for most roads in urban areas with speed limits of up to 60 km/h. Can be either one-way of two-way cycle facilities.*"

Stepped Cycle Track – "*Segregated cycle facilities that are raised by 60-75mm above the carriageway surface and typically 60mm below the adjacent footpath. Generally no buffer between cycle track and carriageway. Suitable for roads with speed limits up to 50 km/h. Only suitable as one-way cycle facilities. Two-way stepped cycle tracks should not be used."*

Protected Cycle Lane – "*At-grade (carriageway level) cycle facilities that are physically separated from vehicular traffic. Separation is typically achieved via light segregation devices e.g. bollards, planters or modular units, or achieved by locating cycle lanes behind parking bays. Effective for protecting existing cycle lanes and for quickly reallocating road space. Suitable on urban road with speed limits up to 50 km/h (depending on traffic volumes). Can be either one-way or two-way cycle facilities."*

Mandatory Cycle Lane – "*Mandatory cycle lanes are marked on carriageways by a continuous white line and not physically separated from motor traffic. Motor traffic is legally prohibited from entering mandatory cycle lanes, except for access purposes. Only suitable on road with low motor traffic volumes and speeds. Only suitable as one-way cycle facilities. Also suitable to provide contra-flow cycle lanes on one-way streets*."

Mixed Traffic – "*Cyclists share the carriageway with vehicular traffic. Only suitable for road with low traffic speeds and volumes such as quiet residential or access streets. Traffic management or calming measures are likely required to ensure low traffic speeds and/or volumes. Cycle streets can be considered on residential access streets where the volume of cyclists is typically greater than the volume of motorists*."

Shared Active Travel Facility / Greenway – "*Two-way cycle route, typically shared with pedestrians, but segregation is also possible. Typically located off-line (away from vehicular carriageway) or sometimes adjacent to rural roads. Greenways, particularly those in rural locations, may be primarily intended for recreational use, however they can generally still perform an important transport function*."

Width Calculator

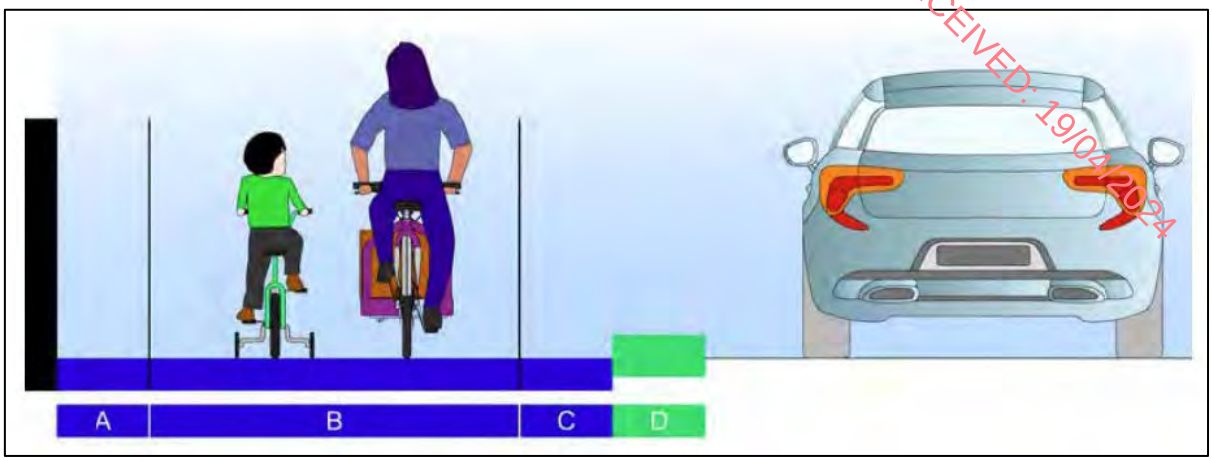
The width required for cycle facilities is made up of four basic elements, which are detailed in Section 2.6 of the NCM and summarised below:

A = Inside Clearance.

B = Central Width.

C = Outside Clearance.

D = Buffer.



Extracted from Section 2.6 of NCM.

When calculating widths, the following should be taken into account:

- Where desirable values cannot be achieved, incremental reductions towards absolute minimum values should be considered.
- The use of widths below the absolute minimum is not recommended.
- The absolute minimum width of a cycle track at pinch points, preferably over short lengths only, is 1.25m.
- The maximum width of a cycle lane should be 2.5m, to avoid confusion with a traffic lane.

Cycle Parking

Section 6.1 of the NCM sets outs the following with regards to cycle parking:

"*The availability of cycle parking facilities at either end of a trip will heavily influence the decision to travel by bicycle. The absence of secure parking will deter some people or make cycling impossible. Cyclists that experience repeated cycle theft will sometimes stop cycling altogether*."

The same 'Five Main Requirements for Cycle-friendly Infrastructure' as described earlier (Safe, Direct, Coherent, Attractive and Comfortable) are recognised in Section 6.2 of the NCM as also applicable to cycle parking:

1. "*Safe – cycle parking should be secure for cycle and users should feel safe from the risk of personal crime.*
2. *Direct – cycle parking should be near to the cycle route and/or as close as possible to the final destination.*
3. *Coherent – cycle parking should be well-connected to routes and buildings, well-signed and easy to find.*
4. *Attractive – cycle parking areas should be of good quality design and well-maintained.*
5. *Comfortable – cycle parking should be easy to use and accessible*."

2.3 Local Policies

2.3.1 Fingal Development Plan 2023 - 2029

The Fingal Development Plan 2023 – 2029 (FDP) sets out the Council's policies and objectives for the development of the County over the period of 2023 to 2029. The Plan seeks to improve and expand in a sustainable manner the social, economic, cultural and environments assets of the County. The strategic vision of the FDP, as extracted from the Plan, is set out below:

"*Fingal will embrace healthy placemaking and economic prosperity through building cohesive and sustainable communities, where our cultural, natural and built environment is protected.*

Fingal will continue to be a County of distinctive environmental, historical and cultural assets and local communities, with sustainable development fostering a high-quality of life for those who live, work and visit here. A sustainable future for the County will be based on the interdependence of the themes of economic growth, social progress and environmental quality with the aim of increasing the County's self-reliance and resilience.

This Plan will ensure the continued growth of the County in a sustainable way and ensure the County continues to develop as a series of well-serviced, well-connected towns, villages and communities and a low carbon economy. In working to deliver all of this, we are committed to engaging with stakeholders, including local communities and residents to develop better solutions to the complex challenges we face and provide an improved quality of life for all."

In the perspective of the subject development site and the proposed scheme some pertinent policies and objectives include:

Strategic Objectives

- *"Create a competitive environment in which to do business. Promote, support and enable sustainable and economic development, enterprise and employment generation. Focus in particular on areas which are accessible by public and sustainable modes of transport. Enable settlements and rural areas to become self-sustaining through innovation and diversification of the rural economy.*
- *Reduce car dependency and promote and facilitate sustainable modes of transport. Prioritise walking, cycling and public transport, while supporting an efficient and effective transport system."*

Connectivity and Movement – Policies and Objectives

<u>The Role of Transportation Policy in Addressing Climate Change</u>

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

<u>Integration of Land-Use and Transport</u>

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

Mobility Management

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

Walking and Cycling (Active Travel)

Walking and cycling routes throughout the County's network will have regard to the NTA Cycle Network Plan for the GDA and the NTA's Cycle Manual while also allowing for the provision of routes identified by the Council that are not featured in the NTA Cycle Network Plan.

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

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

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

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

Accessibility and Universal Design

"*Policy CMP13 – Accessible Pedestrian and Cyclist Environment: Promote and facilitate a network of pedestrian and cycle routes and public realm that is universally accessible for all ages and abilities in accordance with best accessibility practice.*"

Public Transport

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

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

Car Parking Management

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

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

Roads Network

"Policy CMP30 – Roads Infrastructure: Prioritise new road developments that facilitate improvements in the overall efficiency of the transportation network including through the provision of new bridge crossings or new cycling and walking infrastructure."

"Policy CMP31 – Supporting Sustainable Local Development: Prioritise new road developments that underpin new development areas that support sustainable local development."

"Policy CMP32 – Sustainable Roads Infrastructure: Prioritise changes to existing roads infrastructure that underpins sustainable development, maintains road safety and network efficiency."

Development Management Standards – Policies and Objectives

Bicycle Parking

Table 14.17 of the FDP sets out the bicycle parking standards for a number of land-uses. Those relevant to the subject proposed development are provided below.

Land Use Category	Minimum Bicycle Parking Standards	
	Long-Stay	Short-Stay
Employment		
Offices – General	1 per 60 m²	1 per 200 m²
Offices – Science and Technology	1 per 60 m²	1 per 200 m²
Offices – Call centre	1 per 40 m²	1 per 200 m²
Industry – General	1 per 80 m²	1 per 200 m²
Industry – Bio-medical	1 per 100 m²	1 per 200 m²
Industry – Data Centres	1 per 200 m²	1 per 200 m²
Warehouse and distribution	1 per 200 m²	1 per 200 m²

Extracted from Table 14.17 of the FDP.

Mobility Management Plan / Workplace Travel Plans

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

Traffic and Transport Assessment

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

Road Safety

> "*Objective DMSO118 – Road Safety Measures: Promote road safety measures in conjunction with the relevant stakeholders and avoid the creation of traffic hazards."*

Car Parking

Sections 14.17.7 to Section 14.17.10 of the Fingal Development Plan (FDP) set out the guidelines to be followed for the provision of car parking facilities in new developments within the Fingal County Council jurisdiction.

In order to ensure adequate parking provision and the control of destination car parking, the FDP have created the following two distinct car parking zones within the County.

> "*Zone 1: Relates to developments within 800m of Bus Connects spine route, or 1,600m of an existing or planned Luas/Dart/Metro Rail station or within an area covered by Section 49 scheme, or in lands zoned Major Town Centre.*
>
> *Zone 2: Relates to all other areas within the County*."

Table 14.19 of the FDP sets out the car parking standards for a number of land-uses. Those relevant to the subject proposed development are provided below.

Land Use Category	Zone 1: Developments within 800m of a high-quality bus service, or 1600m of an existing or planned Luas/DART/Metro Rail station or in lands zoned Major Town Centre***		Zone 2: All other areas	
Employment				
Offices – General	1 per 80 m²	Max	1 per 40 m²	Max
Offices – Science & Technology	1 per 100 m²	Max	1 per 50 m²	Max
Offices – Call centre	1 per 80 m²	Max	1 per 40 m²	Max
Industry – General	1 per 100 m²	Max	1 per 50 m²	Max
Industry – Bio-medical	1 per 100 m²	Max	1 per 50 m²	Max
Industry – Data Centres	1 per 200 m²	Max	1 per 100 m²	Max
Warehouse and distribution	1 per 200 m²	Max	1 per 100 m²	Max

Extracted from Table 14.19 of the FDP.

Section 14.17.8 sets out the following with regard to Accessible Car Parking:

> "*A minimum of 5% of car parking spaces provided should be set aside for disabled car parking in non-residential developments. Disabled car parking space should be provided as close as reasonably possible to building entrance points and allocated and suitably sign posted for convenient access."*

Section 14.17.9 sets out the following with regard to Motorcycle Parking:

"*Motorcycle parking should be provided to meet the requirements of any development. Parking spaces should be provided on the basis of one motorcycle parking bay per 10 car parking spaces provided for non-residential developments and apartment developments. Spaces should be provided in locations convenient to building access points, similar to cycle parking requirements*."

Section 14.17.10 sets out the following with regards to Electric Vehicle Parking:

"*Non-residential development shall be required to provide functioning EV charging points at a minimum of 10% of all spaces and all other spaces shall incorporate appropriate infrastructure (ducting) to allow for future fit out of a charging point al all spaces."*

"Objective DMSO119 – Car Parking at Places of Work and Education: Limit the number of car parking spaces at places of work and education so as to minimise car-borne commuting. The number of car parking spaces at new developments shall be in accordance with the standards set out in Table 14.19 and the associated criteria for car-parking provision set out in this Plan."

3 Receiving Environment

3.1 Introduction

This section of the report describes the receiving environment in the vicinity of the site. Details of the existing and planned/future local road network infrastructure as well as the local public transport and active travel facilities are provided.

3.2 Local Road Network

3.2.1 Local Roads

Figure 3.1 below illustrates the location of the proposed development in the local road network.

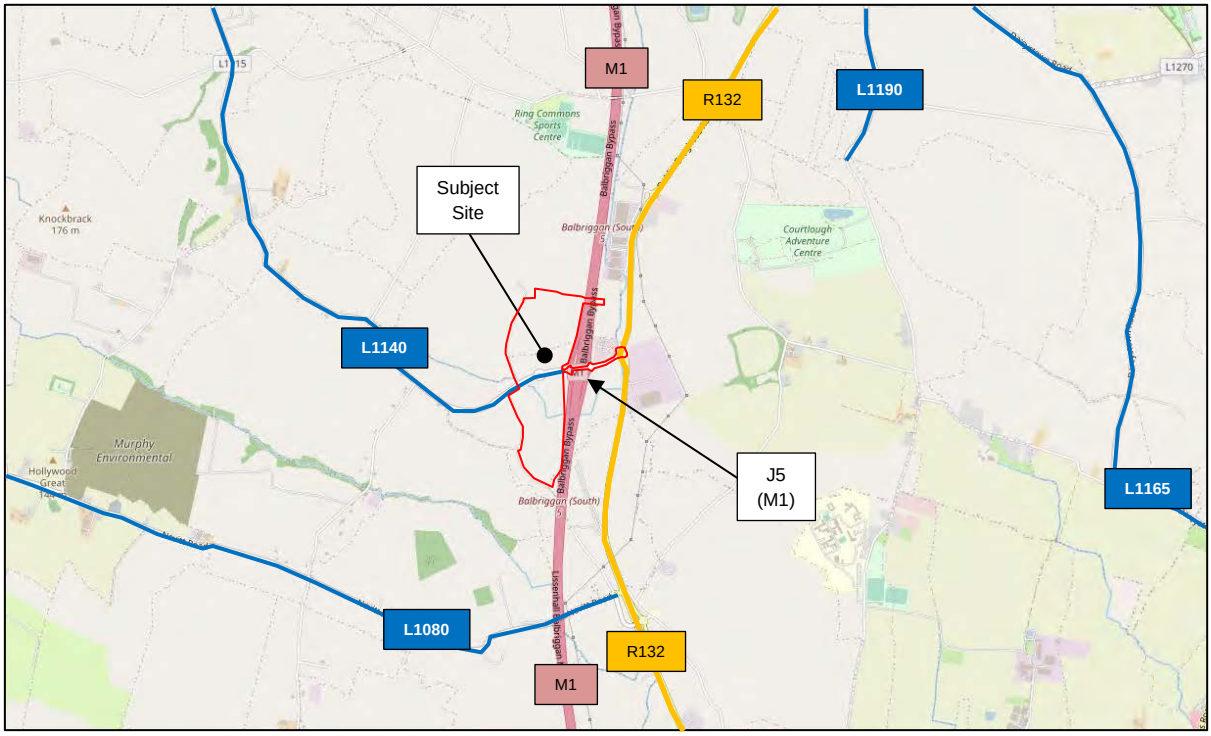


Figure 3.1 *Location of Proposed Development Site in the Local and Expanded Road Network.*

The subject site is situated west of the R132 and immediately west (adjacent) to Junction 5 of the M1 motorway. The L1140 (Bhailsigh Road) intersects the site from east to west and provides the existing access to the site.

M1 motorway serves as a strategic vehicular link to Dublin City and provides connection to several towns and cities along its length such as Swords, Drogheda and Dundalk. To the south, the M1 provides direct access to Dublin Airport and terminates at the M1/M50 interchange, where the M50 extends southward providing direct access to Dublin Port via Dublin Port Tunnel.

Along the section adjacent to the subject site, the M1 motorway is configured as a double carriageway with two lanes in each direction, featuring On Slip and Off Slip lanes on both sides. The M1 is subject to a speed limit of 120kph.

The R132, a regional road running north-south to the east of the site, serves as another strategic vehicular link to Dublin City and various key towns and cities along its route. In proximity of the subject

site, the R132 is a single carriageway road with an 80kph speed limit (reducing to 60kph approaching the Applegreen roundabout), providing access to some employment developments.

Access to the subject development site is proposed via L1140 - which intersects the site in an east-west direction, facilitated by an existing roundabout. In the section bisecting the site, the L1140 is a single carriageway road with an existing carriageway width of 7.52m, featuring 1.9m verge and Armco barriers on both sides. Refer to Figure 3.2 below for existing L1140 cross section.

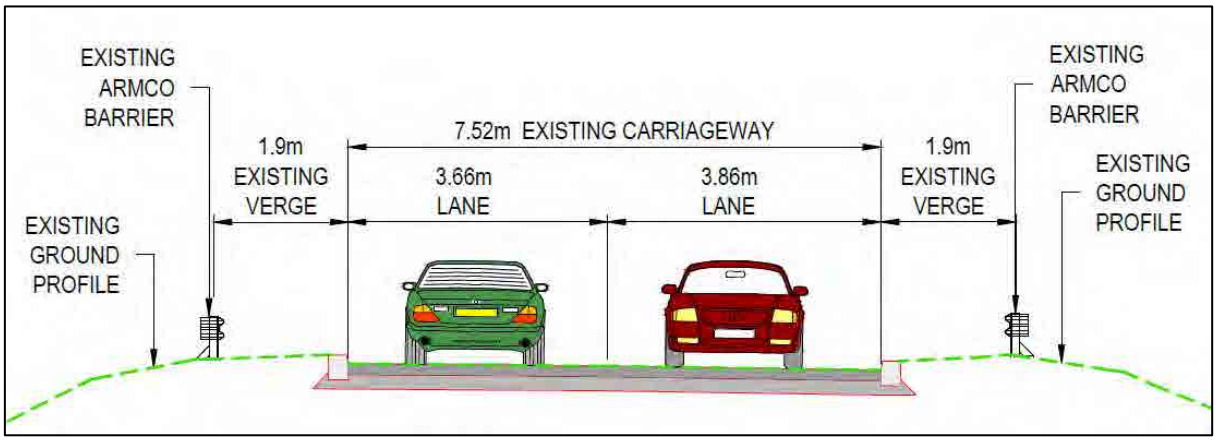


Figure 3.2 *L1140 – Existing Cross Section.*

3.2.2 Local Relevant Junctions

The primary local junctions considered relevant to the subject assessment are the following:

- Junction 1 (Existing Roundabout): L1140 (Bhailsigh Road)

Junction 1 is an existing two-armed priority-controlled roundabout with an Inscribed Circular Diameter (ICD) of 50 metres and provision for future third and fourth arms (north and south). The construction/extension of these north and south arms are proposed as part of the subject application to form the access to the proposed development. Details of the proposed site access arrangements are provided later in Section 4.2 of this report.

- Junction 2 (Existing Roundabout): L1140 / M1 Northbound Off Slip / M1 Northbound On Slip

Junction 2 is an existing four-armed priority-controlled roundabout with an ICD of 34 metres. The southern and northern approaches of the roundabout are formed by the M1 Northbound Off Slip and On Slip, and therefore are entry only and exit only arms, respectively.

- Junction 3 (Existing Roundabout): L1140 / M1 Southbound Off Slip / M1 Southbound On Slip

Junction 3 is an existing four-armed priority-controlled roundabout with an ICD of 34 metres. The northern and southern approaches of the roundabout are formed by the M1 Southbound Off Slip and On Slip, and therefore are entry only and exit only arms, respectively.

- Junction 4 (Existing Roundabout): L1140 / R132 / Access Road to Applegreen Petrol Station

Junction 4 is an existing four-armed priority-controlled roundabout with an ICD of 50 metres. The northwestern approach is the existing access to an Applegreen Petrol Station.

The location of each of the above junctions in relation to the subject development site is illustrated in Figure 3.3 which follows.

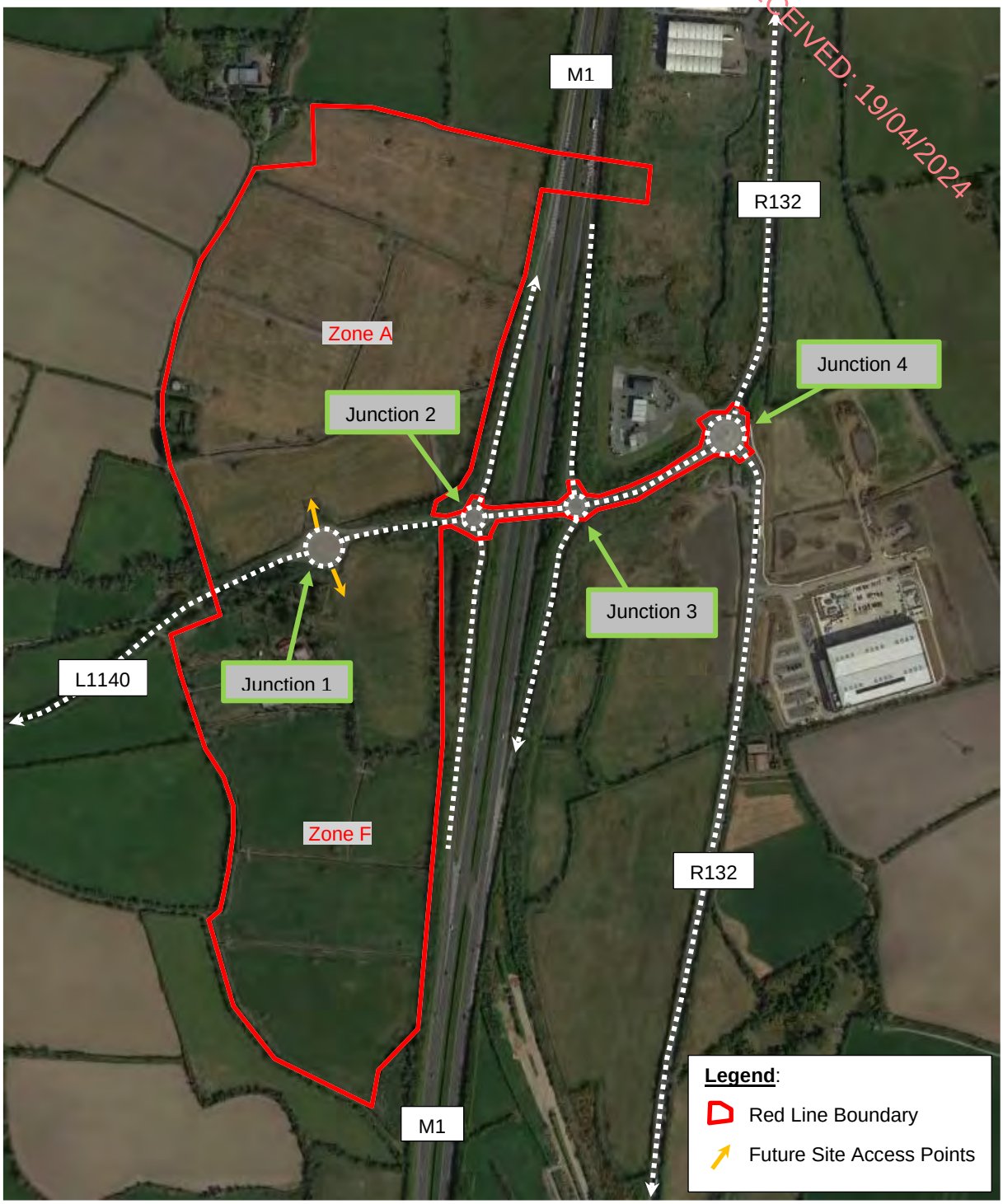


Figure 3.3 *Location of Local Relevant Junctions.*

Sections of the L1140 and the R132 are included within the site red line boundary. As part of the subject application, new active travel facilities are proposed along these roads to enhance pedestrian and cyclist connectivity and safety. Details of the proposed active travel facilities are provided later in this report.

3.2.3 Existing Traffic Flows

In order to determine the volume of traffic movements at the local relevant junctions and surrounding road network, a set of classified traffic surveys was commissioned.

Traffic surveys were carried out by 'IDASO' during the period of 48 hours from Tuesday 10th October 2023 (Day 1) to Wednesday 11th October 2023 (Day 2) at the 4 no. junctions illustrated in Figure 3.3 above and on both directions of the M1 motorway (northbound and southbound).

The identified peak hours for each surveyed site are shown in Table 3.1 below.

Surveyed Site	Surveyed Peak Day	Surveyed Peak Hours	
		AM	PM
Junction 1	Day 2	07:45 to 08:45	16:15 to 17:15
Junction 2	Day 1	07:45 to 08:45	16:30 to 17:30
Junction 3	Day 1	07:45 to 08:45	16:30 to 17:30
Junction 4	Day 1	07:45 to 08:45	16:30 to 17:30
M1 Northbound (Link 5)	Day 2	11:00 to 12:00	16:45 to 17:45
M 1 Southbound (Link 6)	Day 1	06:15 to 07:15	12:15 to 13:15

***Table 3.1** Traffic Survey – Recorded Peak Hours by Site.*

As can be seen from above, the network traffic peak hours vary by each surveyed site. Even though most identified peaks across the 4 no. surveyed junctions fall between 07:45 to 08:45 in the AM and 16:30 to 17:30 in the PM, to undertake a conservative analysis, for the purpose of this assessment, each site has been assessed based on their individual peak hours and associated peak hour volumes. Full IDASO traffic survey is provided in Appendix A. A summary of the 2023 peak hour volumes through each surveyed site is shown below.

Surveyed Site	Surveyed Two-way Flows (PCU)	
	AM Peak Hour	PM Peak Hour
Junction 1	121	97
Junction 2	574	869
Junction 3	1,241	1,225
Junction 4	1,678	1,586
M1 Northbound (Link 5)	1,543	3,644
M 1 Southbound (Link 6)	3,319	1,756

***Table 3.2** Traffic Survey – Recorded Two-way Flows by Site.*

The two-way traffic figures presented above are in Passenger Car Units (PCU) with the following Vehicle to PCU conversion factors assumed: Motorcycle – 0.4, Passenger Car/LGV – 1.0, Medium Goods Vehicle (MGV/OGV1) – 1.5, Buses and Coaches – 2.0 and Heavy Goods Vehicle (HGV/OGV2) – 2.3. (Source: TII, Project Appraisal Guidelines for National Roads Unit 5.2 – Data Collection, October 2016 – PE-PAG-02016).

3.3 Public Transport

3.3.1 Local Bus Services

The subject site is currently not directly serviced by a public bus service, though the closest bus stops would be on R132 approximately 850m northeast of the proposed site access – to the east of M1 motorway, being Grooms Bus Stops No. 1000231 (northbound) and No. 100761 (southbound). These bus stops are serviced by the following bus routes:

- **Bus Eireann Route 101**: Dublin (Busáras) – Dublin Airport – Drogheda Bus Station.
- **Balbriggan Express Route 191**: Mountain View, Stamullen – Balbriggan – Eden Quay Dublin.

A summary of the frequency of which each bus route operate is provided in Table 3.3. The location of the subject bus stops and the walking route to/from the site access point are illustrated in Figure 3.4.

Bus Route	Direction	Frequency at Grooms Bus Stops		
		Monday to Friday	Saturday	Sunday
Bus Eireann 101	Dublin to Drogheda	***24 hours service*** 21h to 06h: ~ Hourly 06h to 21h: 15 - 35 min	***24 hours service*** 21h to 06h: ~ Hourly 06h to 21h: 30 - 35 min	***24 hours service*** All day: ~ Hourly
	Drogheda to Dublin	***24 hours service*** 20h to 05h: ~ Hourly 05h to 20h: 15 - 35 min	***24 hours service*** 20h to 05h: ~ Hourly 05h to 20h: 25 - 35 min	***24 hours service*** All day: ~ Hourly
Balbriggan Express 191	Stamullen to Dublin	***3 services*** *(set down)* 07h08; 07h58; 09h07	-	-
	Dublin to Stamullen	***2 services*** 17h45; 18h30	-	-

Table 3.3 *Local Bus Routes – Existing Weekday and Weekend Frequencies.*

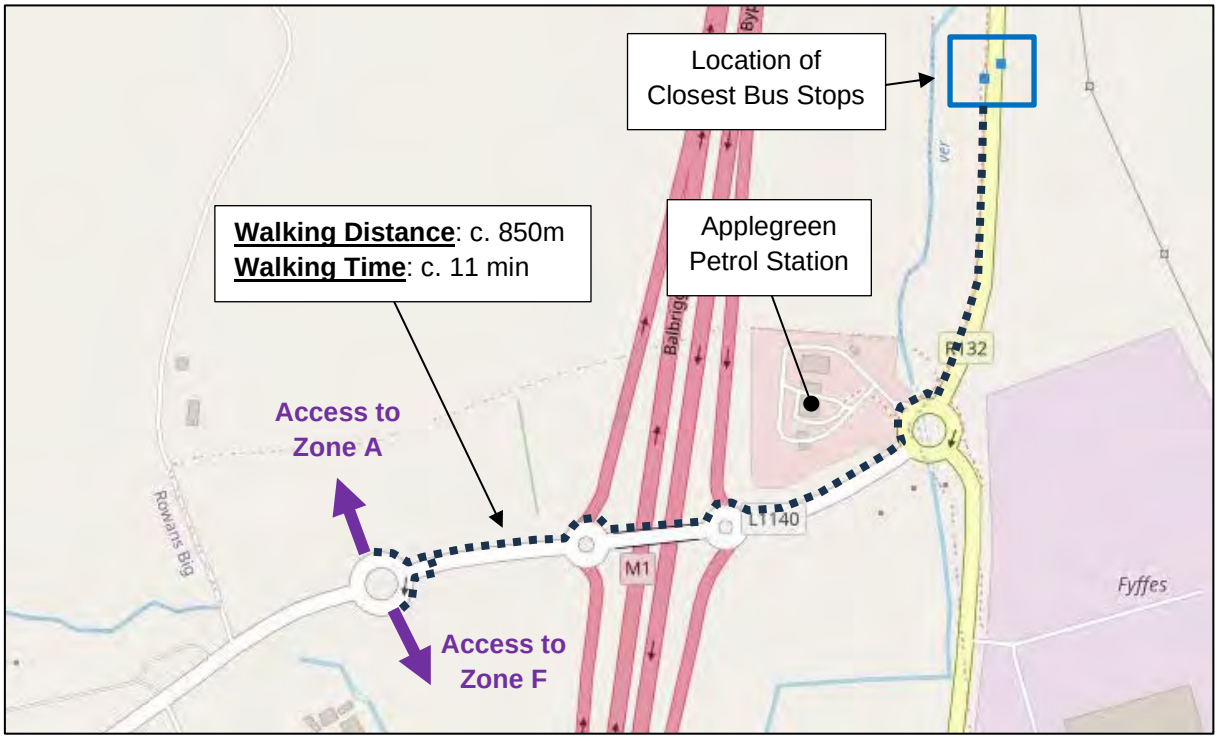


Figure 3.4 *Location of Closest Bus Stops and Walking Routes from the Site Access Points.*

Access from the proposed development's access point to the closest bus stops on R132 is via L1140 (eastwards across the M1 motorway) and R132 (northwards up until the bus stops). Footpaths are provided on L1140 near the development's access roundabout, along the M1 overbridge and along R132 from Applegreen petrol station up as far as the bus stops. Refer to Figure 3.6.

With the focus of enhancing the connectivity between the proposed development and the local public bus services, new active travel facilities are proposed along the L1140. Details of these proposed facilities are provided later in Section 4.2.3.

3.4 Active Travel Facilities

3.4.1 Local Cycle Facilities

There are no existing cycle facilities in the local area.

Proposals for the Greater Dublin Area Cycle Network Plan were published by the National Transport Authority in 2022, which superseded the latest 2013 version. The Plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area. An extract of 'Cycle Network Plan – Balbriggan & Skerries' sheet is reproduced in Figure 3.5 below.

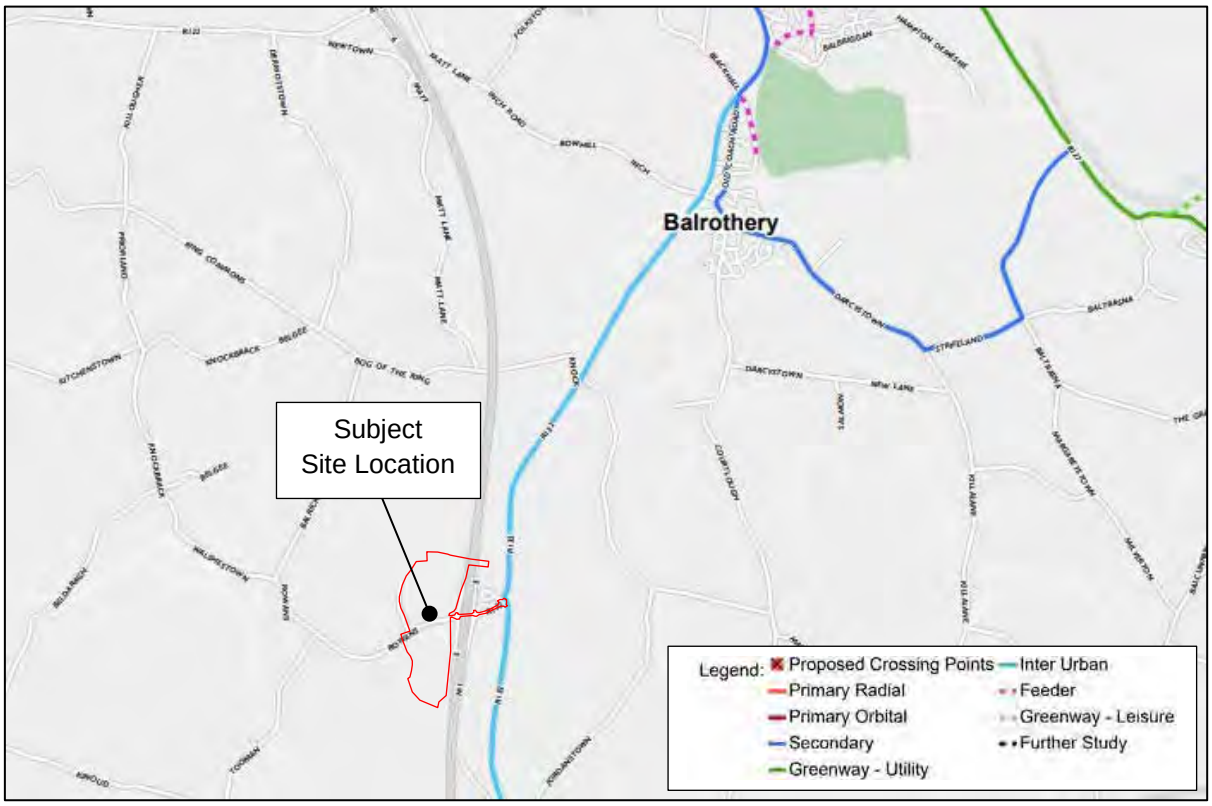


Figure 3.5 *GDA Cycle Network Plan – extract from Balbriggan & Skerries sheet.*

An Inter Urban Cycle Route along the R132 is proposed under the GDA Cycle Network Plan. This route will facilitate cyclist movements to/from Balbriggan to the north and to/from the several areas in and around Dublin to the south.

As part of the subject application, new active travel facilities along the L1140 are proposed to enhance the connectivity between the proposed development and the facilities along R132. Details of these proposed facilities are provided later in Section 4.2.3.

3.4.2 Local Pedestrian Facilities

The pedestrian facilities currently available in the local area are illustrated in Figure 3.6 below. It is comprised of c. 1.6m wide footpaths around the development's access roundabout, c. 2.0m wide footpaths along both sides of the M1 overbridge, c. 2.0m wide footpaths along the western side of the R132 and c. 2.0m wide footpaths along the eastern side of the R132 southwards from the Applegreen Petrol Station's Roundabout. Dropped kerbs and tactile paving facilities are provided on the existing pedestrian crossings at the roundabouts.

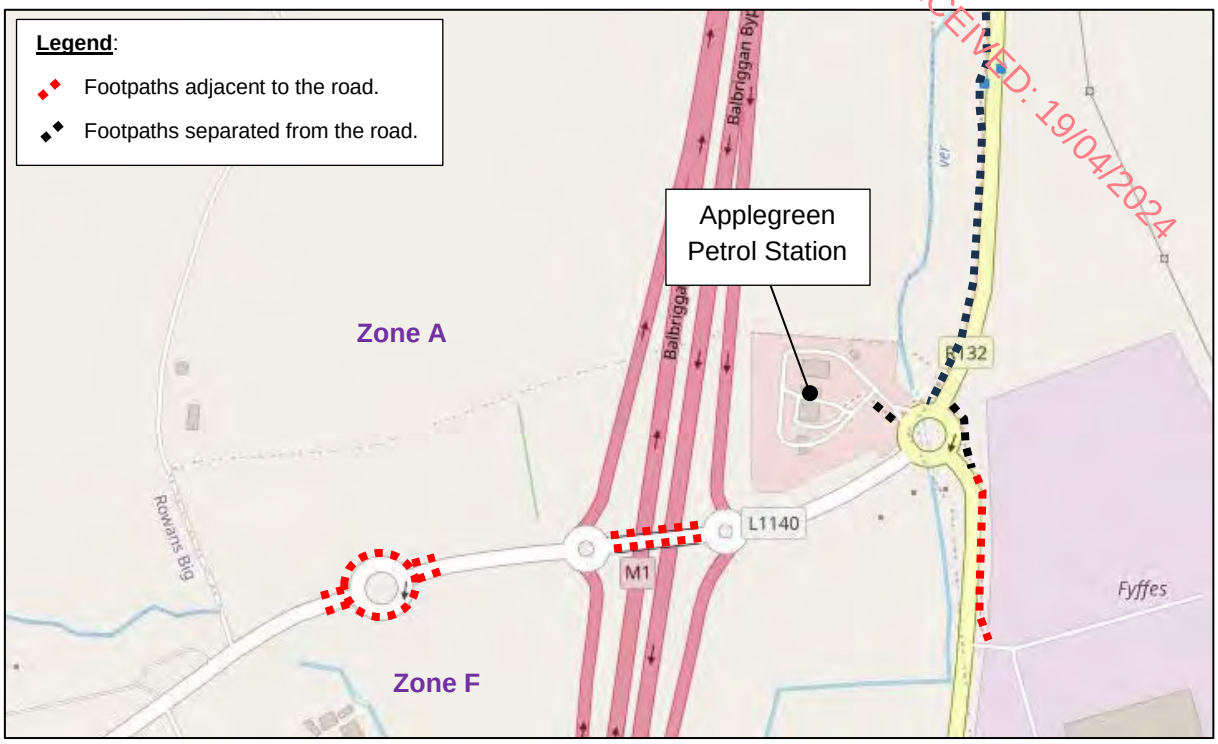


Figure 3.6 *Existing Local Pedestrian Facilities.*

As can be noted, the existing footpaths in the local area are disconnected from each other, which indicate that pedestrian's movement is currently constrained and not safe – especially for those crossing the M1.

As part of the subject application, new active travel facilities along the L1140 are proposed. These will enhance the connectivity between the proposed development and the existing pedestrian facilities along R132 while it will make the use of public bus service more attractive to those travelling to/from the proposed development. Details of these facilities are provided later in Section 4.2.3.

3.4.3 Surveyed Cycle and Pedestrian Flows

As part of the commissioned survey described in Section 3.2.3 above, IDASO have also carried out additional surveys to determine the existing pedestrian flows on Junction 1 (Site Access Roundabout) and Junction 4 (Applegreen Roundabout) and existing cycle flows on all junctions. These surveys were also undertaken during the period of 48 hours from Tuesday 10th October 2023 (Day 1) to Wednesday 11th October 2023 (Day 2). The results of the surveys are provided below.

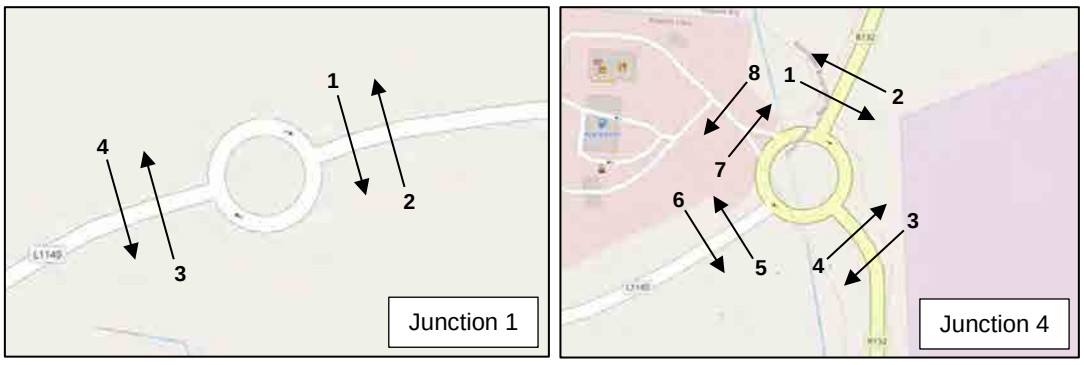


Figure 3.7 *Surveyed Pedestrian Movements at Junction 1 and Junction 4.*

Day 1 has been identified for both surveyed junctions as the day with the highest number of pedestrian movements recorded amongst the two surveyed days.

Surveyed Site	Movement	Surveyed Pedestrian Movements (Entire Day)
Junction 1	**1**	2
	2	0
	3	1
	4	0
Junction 4	**1**	13
	2	14
	3	0
	4	0
	5	1
	6	0
	7	8
	8	12

Table 3.4 *Pedestrian Survey Results.*

It is notable that pedestrian activity in the area is quite low, particularly on the site access roundabout, with just 3 recorded movements at Junction 1 and 48 recorded movements at Junction 4 over a 24-hour period. This reflects the non-urbanised location where the subject site is situated.

With regards to cyclist movements, Day 2 has been identified for all surveyed junctions as the day with the highest number of cyclist movements, except Junction 4. A summary of the two-way cyclist movements recorded on each junction is provided below.

Surveyed Site	Surveyed Day	Surveyed Cyclist Movements (Entire Day)
Junction 1	**2**	6
Junction 2	**2**	6
Junction 3	**2**	6
Junction 4	**1**	51

Table 3.5 *Cyclist Survey Results.*

Regarding cyclist movements, the activity in the area is also minimal, particularly at the site access roundabout (Junction 1) and the roundabouts facilitating access to the M1 motorway (Junction2 and 3). The majority of recorded cyclist movements at Junction 4 (Applegreen Roundabout) pertain to northbound and southbound travel along the R132, with 23 and 19 daily movements respectively.

4 Proposed Development

4.1 Development Description

The proposed development consists of:

- Demolition of a single-storey 200-square-metre (m²) house, an abandoned water storage reservoir and associated pump stations, all located on the western boundary of Zone A;
- Demolition of 13 No. existing buildings consisting of agricultural sheds, stables, warehouses and residential dwellings located in Zone F;
- Provision of civil infrastructure to service future-planned commercial properties on the lands located on the western side of the M1 Business Park and M1 motorway, referred to as Zone A and F.
- Zone A and F lands are located north and south of Bhailsigh Road (L1140), respectively, which connect to Junction 5 of the M1 Motorway and are located in the townlands of Rowan's Big and Rowan's Little.
- Preparation of indicative Masterplan for Zone A and F which contains layouts of the future planned commercial properties, consisting of mixed-use, warehousing and distribution units including associated loading bays for HGVs, service compounds, ESBN substations and parking areas to service each commercial unit site, which would be subject to individual planning permission applications.
- Provision of civil infrastructure designed to service various mixed-use buildings consisting of 20k- to 105k-square-feet (ft²) units with the potential to combine plots should larger units be required.
- In Zone A and F, the civil infrastructure will consist of primary access roads including pedestrian/cycle paths, watermains, surface water and foul drainage networks. utility ducting for services consisting of power and telecommunications.
- The primary access roads into Zone A and F will consist of 7.5-metre-wide single-carriageways originating from Bhailsigh Road (L1140) roundabout including segregated cycle tracks and pedestrian footpaths with associated verges.
- Upgrading of the existing Balrickard stream crossing located in Zone F in accordance with the Office of Public Works Section 50 of the Arterial Drainage Act (1945), guidelines.
- Individual access spurs will be provided from the primary access road to each of the future-planned commercial land parcels.
- Provision of pipelines and associated infrastructure for watermains to service future-planned commercial properties and
- Provision of surface water drainage infrastructure for the access road and associated infrastructure consisting of Sustainable Urban Drainage Systems features such as attenuation ponds, raingardens, bioretention ponds, Nature-based Solutions (NBS) and conveyance networks.

A plan layout drawing of the proposed development is shown on CSEA Drawing 16_206A-CSE-GEN-XX-DR-C-1610 accompanying the documentation package which is reproduced in Figure 4.1.

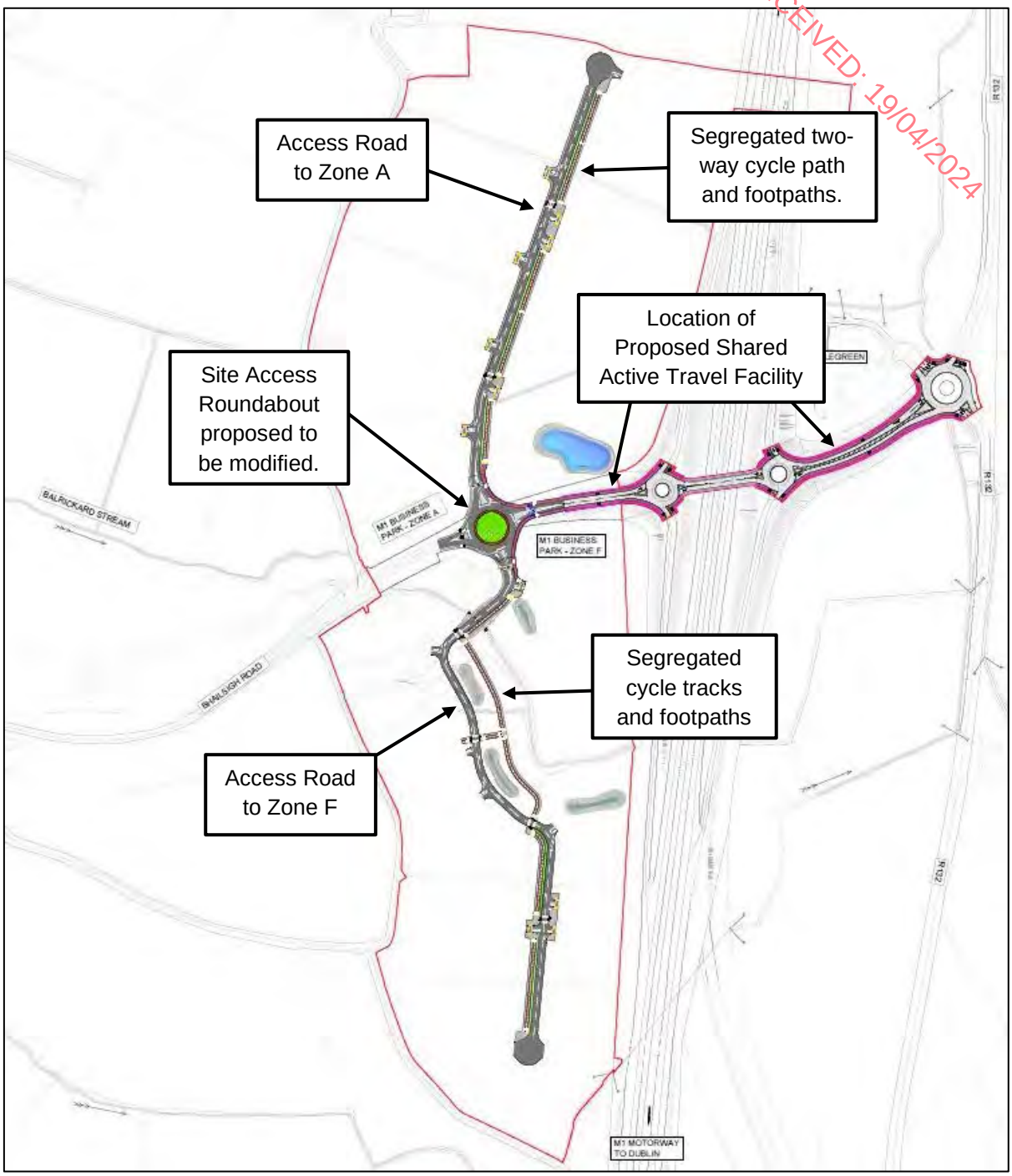


Figure 4.1 *Proposed Development Plan Layout.*

4.2 Access Arrangements

4.2.1 Vehicular Access

The proposed vehicular access to the site is planned through the Bhailsigh Road (L1140) roundabout which is proposed to be upgraded/modified in accordance with the Transport Infrastructure Ireland (TII) roundabout design standards. Access to Zone A is intended through the extension of the northern approach of the roundabout, while access to Zone F is proposed through the extension of the southern approach. The proposed modified layout of the roundabout is illustrated in Figure 4.2.

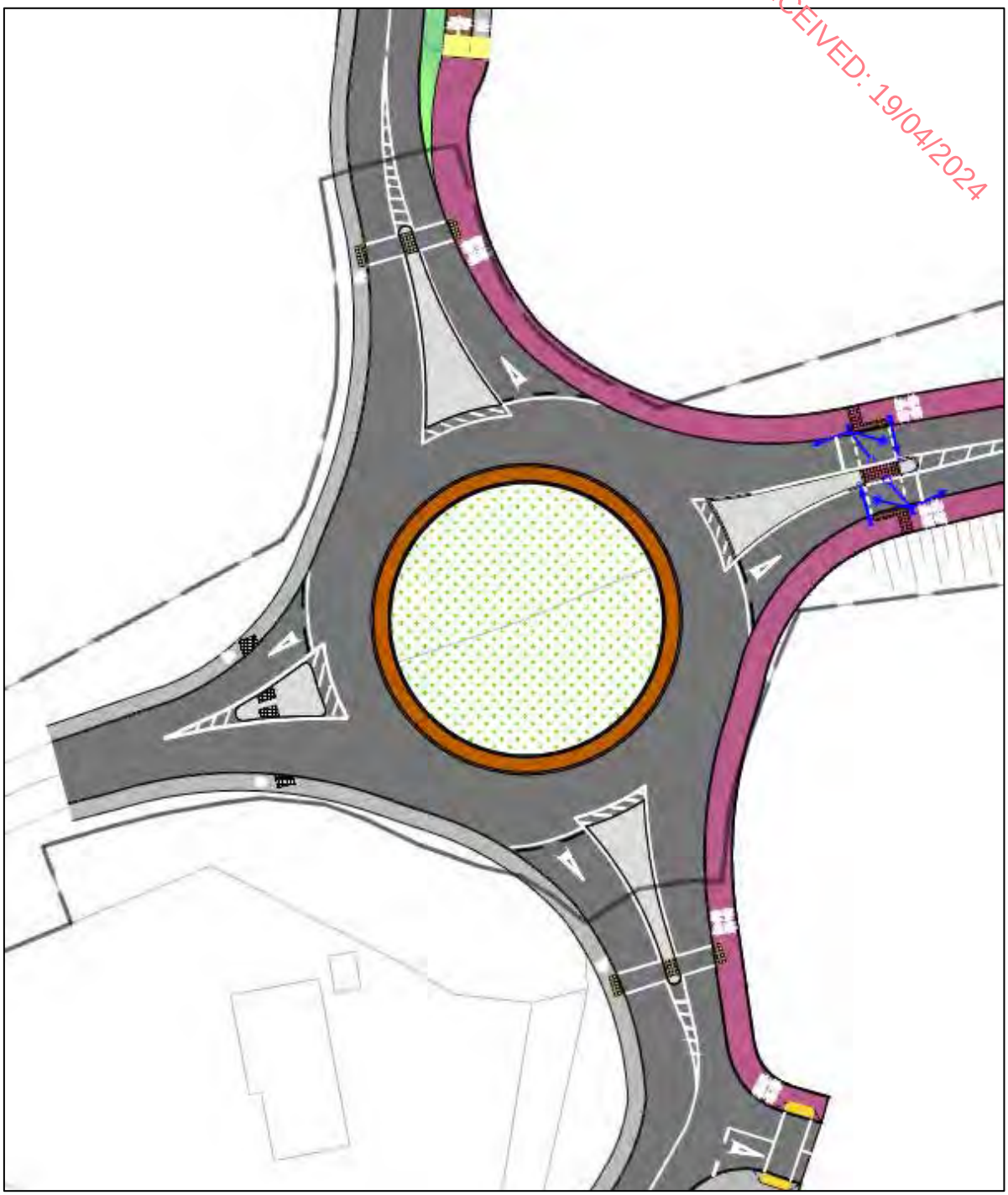


Figure 4.2 *Bhailsigh Road (L1140) Access Roundabout – Proposed Modified Layout.*

The proposed roundabout modifications include:

- Maintenance of the 50m Inscribed Circular Diameter (ICD).
- Enlargement the of main central island by introducing a 2.0m-wide central overrun area capable of being mounted by trailers and HGVs.
- Reduction of circulating lanes width from 9.5m to 7.5m.
- Introduction of a signalised toucan crossing on the eastern approach.

- Introduction of uncontrolled crossings on the northern and southern approaches.
- Maintenance of existing pedestrian crossings on the western approach.

4.2.2 Access Roads

The various cross sections for the proposed Zone A and Zone F access roads are illustrated in Figure 4.3 and Figure 4.4, respectively.

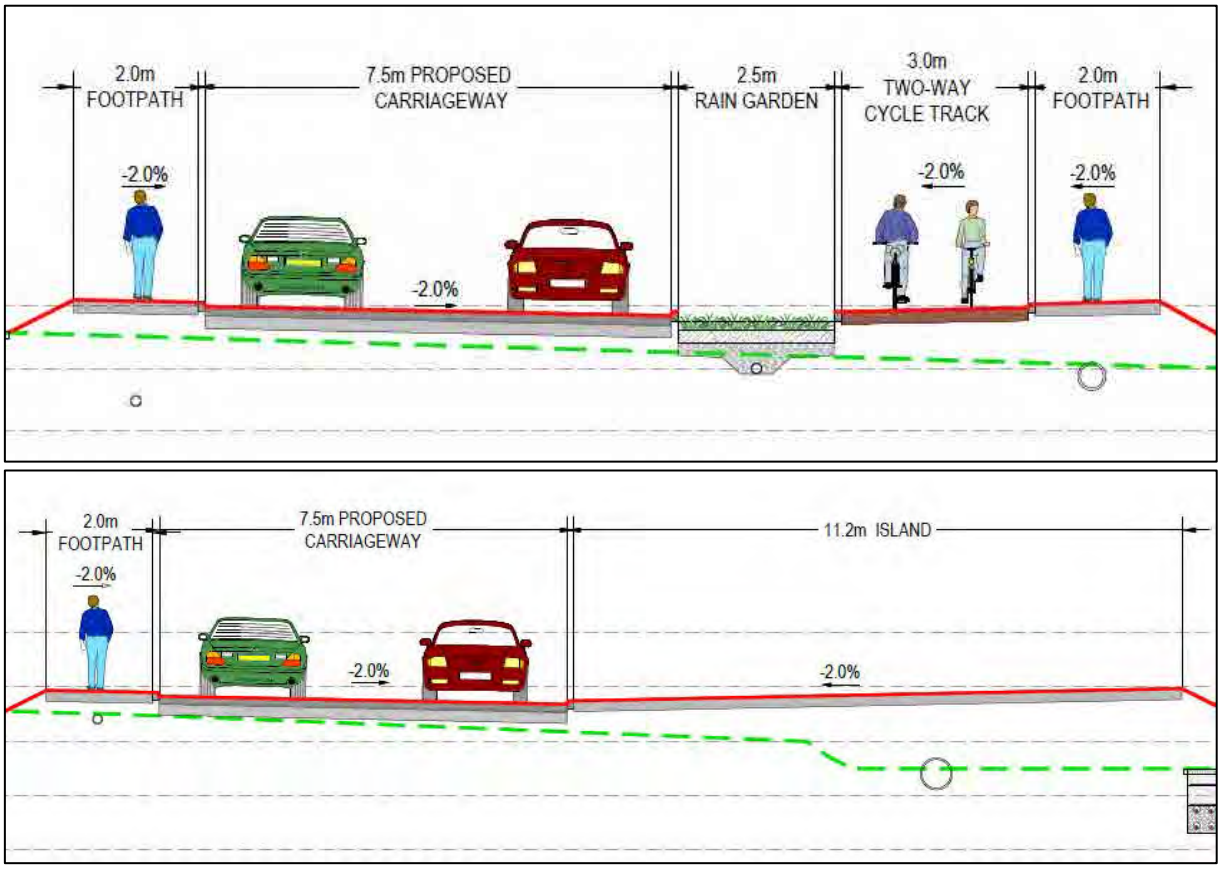


Figure 4.3 *Zone A – Cross Section of Proposed Access Road.*

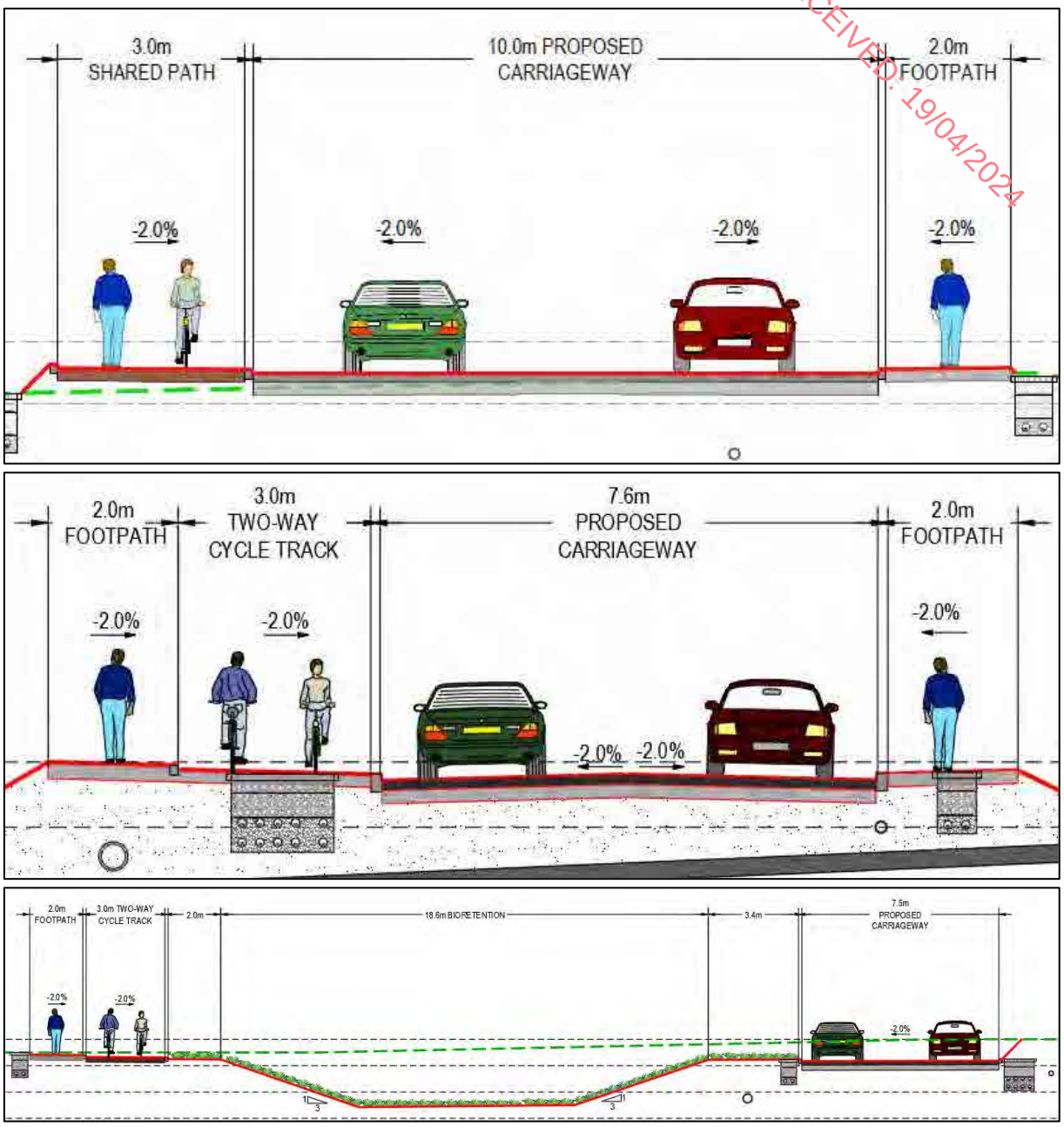


Figure 4.4 *Zone F – Cross Section of Proposed Access Road.*

4.2.3 Proposed Active Travel Facility along L1140

Pedestrian and cyclist access to both Zone A and Zone F will also be facilitated by the modified Bhailsigh Road (L1140) roundabout.

To improve active travel connectivity between the site access and the public transport facilities along the R132 – such as the existing bus stops and the inter-urban cycle route, it is proposed to construct 3.0m-wide shared paths along both sides of the Bhailsigh Road (L1140). This facility is set to commence at the Bhailsigh Road (L1140) site access roundabout, extend along the M1 overbridge, and connect to the existing pedestrian infrastructure at the Applegreen Roundabout. Refer to Figure 4.5.

The introduction of this shared active travel facility aims to enhance the attractiveness of the available public bus service, while offering cyclist and vulnerable users a safer and more comfortable link between the site and the R132.

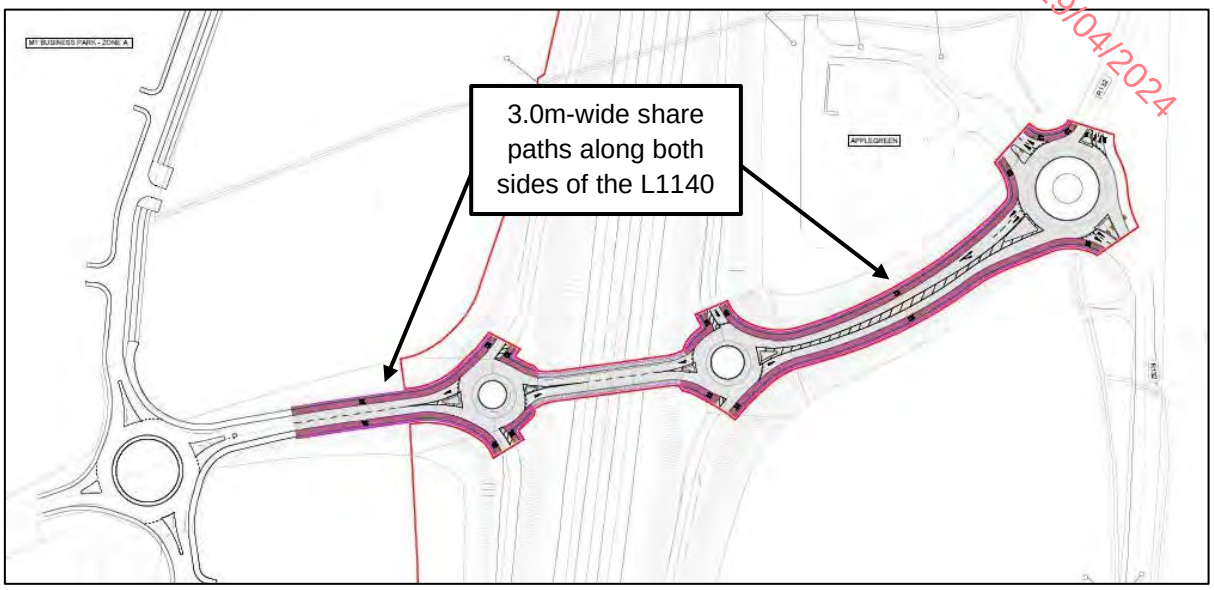


Figure 4.5 *Proposed Shared Active Travel Facility.*

4.3 Internal Active Travel Infrastructure

The proposed internal infrastructure includes the provision of two-way cycle tracks measuring 3.0m in width and footpaths measuring 2.0m in width within each Zone. These facilities will lead towards the proposed modified Bhailsigh Road (L1140) roundabout and will tie into the 3.0m wide shared active travel facility proposed along L1140 from the site access roundabout to the Applegreen Roundabout.

Various strategic-located crossing facilities are planned within the site (and also outside) to ensure the safe and convenient movement of all users, enhancing permeability. These facilities consist of features such as dropped kerbs with tactile pavement and raised tables with tactile pavement, aiming to provide comfort and independence for all users. Additionally, the raised tables will also serve as a traffic calming measure to reduce vehicle speeds within the site.

4.4 Access to Refuse Vehicles and Fire Tenders

The proposed road infrastructure development will be accessible for refuse vehicles, fire tenders and heavy goods vehicles including articulated vehicles. Turning path layout for articulated vehicles is shown on CSEA drawings 16_206A-CSE-GEN-XX-DR-C-1675 to 1677 accompanying the documentation package.

5 Parking

5.1 Car Parking

Fingal Development Plan 2023 – 2029 Standards

Sections 14.17.7 to Section 14.17.10 of the Fingal Development Plan (FDP) set out the guidelines to be followed for the provision of car parking facilities in new developments within the Fingal County Council jurisdiction.

In order to ensure adequate parking provision and the control of destination car parking, the FDP have created the following two distinct car parking zones within the County.

> "*Zone 1: Relates to developments within 800m of Bus Connects spine route, or 1,600m of an existing or planned Luas/Dart/Metro Rail station or within an area covered by Section 49 scheme, or in lands zoned Major Town Centre.*
>
> *Zone 2: Relates to all other areas within the County*."

Table 14.19 of the FDP sets out the car parking standards for a number of land-uses. Those relevant to the subject proposed development are provided below.

Land Use Category	Zone 1: Developments within 800m of a high-quality bus service, or 1600m of an existing or planned Luas/DART/Metro Rail station or in lands zoned Major Town Centre***		Zone 2: All other areas	
Employment				
Offices – General	1 per 80 m²	Max	1 per 40 m²	Max
Offices – Science & Technology	1 per 100 m²	Max	1 per 50 m²	Max
Offices – Call centre	1 per 80 m²	Max	1 per 40 m²	Max
Industry – General	1 per 100 m²	Max	1 per 50 m²	Max
Industry – Bio-medical	1 per 100 m²	Max	1 per 50 m²	Max
Industry – Data Centres	1 per 200 m²	Max	1 per 100 m²	Max
Warehouse and distribution	1 per 200 m²	Max	1 per 100 m²	Max

Extracted from Table 14.19 of the FDP.

Section 14.17.8 sets out the following with regards to Accessible Car Parking:

> "*A minimum of 5% of car parking spaces provided should be set aside for disabled car parking in non-residential developments. Disabled car parking space should be provided as close as reasonably possible to building entrance points and allocated and suitably sign posted for convenient access."*

Section 14.17.9 sets out the following with regards to Motorcycle Parking:

> "*Motorcycle parking should be provided to meet the requirements of any development. Parking spaces should be provided on the basis of one motorcycle parking bay per 10 car parking spaces provided for non-residential developments and apartment developments. Spaces should be provided in locations convenient to building access points, similar to cycle parking requirements*."

Section 14.17.10 sets out the following with regards to Electric Vehicle Parking:

> "*Non-residential development shall be required to provide functioning EV charging points at a minimum of 10% of all spaces and all other spaces shall incorporate appropriate infrastructure (ducting) to allow for future fit out of a charging point al all spaces.*"
>
> *"Objective DMSO119 – Car Parking at Places of Work and Education: Limit the number of car parking spaces at places of work and education so as to minimise car-borne commuting. The number of car parking spaces at new developments shall be in accordance with the standards set out in Table 14.19 and the associated criteria for car-parking provision set out in this Plan."*

Fingal Development Plan 2023 – 2029 Requirements

Given the nature of the proposed development (civil infrastructure to serve future-planned commercial buildings), no car parking spaces are required under the subject application.

Nonetheless, each individual planning application for the future-planned commercial developments within the site shall include a car parking compliance statement. This statement should address adherence to the Fingal Development Plan standards and guidelines, specifying the total number of car parking spaces and allocation details for electric vehicle (EV), disabled, and motorcycle spaces. Any deviation from the car parking requirements must be substantiated and approved by the planning authority.

5.2 Cycle Parking

Fingal Development Plan 2023 – 2029 Standards

Table 14.17 of the Fingal Development Plan sets out the bicycle parking standards for a number of land-uses. Those relevant to the subject proposed development are provided below.

Land Use Category	Minimum Bicycle Parking Standards	
	Long-Stay	Short-Stay
Employment		
Offices – General	1 per 60 m²	1 per 200 m²
Offices – Science and Technology	1 per 60 m²	1 per 200 m²
Offices – Call centre	1 per 40 m²	1 per 200 m²
Industry – General	1 per 80 m²	1 per 200 m²
Industry – Bio-medical	1 per 100 m²	1 per 200 m²
Industry – Data Centres	1 per 200 m²	1 per 200 m²
Warehouse and distribution	1 per 200 m²	1 per 200 m²

Extracted from Table 14.17 of the FDP.

Fingal Development Plan Requirements

Similar to car parking, no cycle parking spaces are required under the subject application. However, each individual planning application for the future-planned commercial developments within the site shall include details on how the proposed cycle parking will align with the Council's requirements. Any deviation from the cycle parking requirements must be substantiated and approved by the planning authority.

6 Modal Split

In order to obtain the modal split information for the Small Area where the subject site is situated, it was required to investigate 1 Workplace Zone (as defined by the Central Statistics Office (CSO)).

According to CSO "*Workplace Zones are based on 2016 Small Areas, which were merged or split to create areas with 100-400 workers and at least 3 workplace locations*". The reason for the creation of the Workplace Zones were based on the following:

- "*Small Areas are based on where people reside and not where they work.*
- *Some Small Areas contain no/few businesses; some contain many.*
- *Potential uses in emergency planning, transport optimum location for new businesses etc.*
- *Growing demands for data on workers and daytime statistics nationally and internationally*."

The general rules for the creation of the Workplace Zones are:

- "Wh*ere possible all zones to have a range of between 100 to 400 workers.*
- *Each Workplace Zone contains a minimum of three workplaces.*
- *Workplace zones nest within county boundaries.*
- *No more than 90% of employees in any Workplace Zone can work in one organisation*."

Based on the above rules, the Small Area where the subject site is located (Ref. 267104003) was merged with an adjacent Small Area (Ref. 267094001/267094002/267094005) to create a Workplace Zone (Ref. FL0190) – see below.

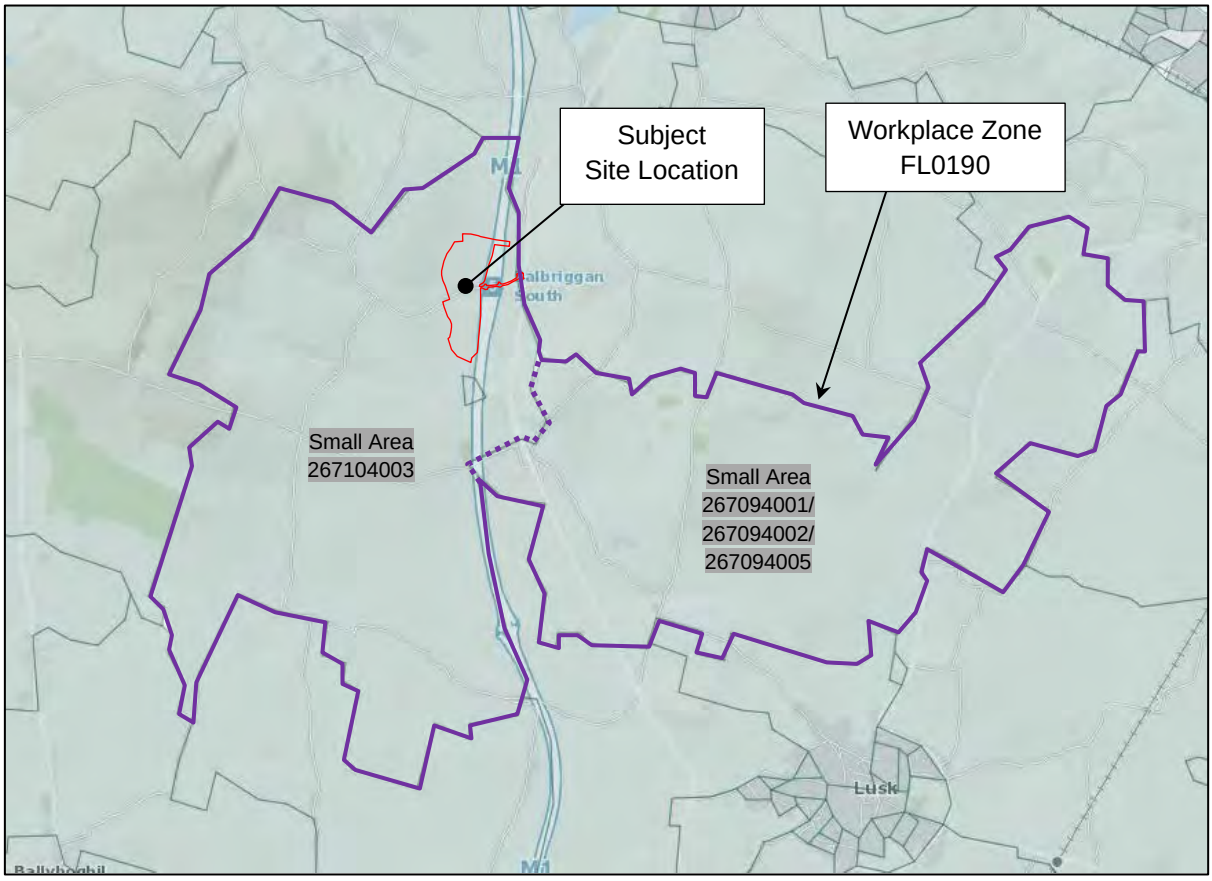


Figure 6.1 *Location Map of Proposed Development with Workplace Zone FL0190.*

The modal split results for the Workplace Zone – based on how employees commute to/from their places of work at this zone, are summarised below.

Mode	General Modal Split	Modal Split (excluding Others and Not Stated
On foot	4%	5%
Bicycle	2%	2%
Bus, minibus or coach	1%	1%
Train, DART or LUAS	0%	0%
Motorcycle or scooter	0%	0%
Car driver	55%	59%
Car passenger	25%	27%
Van	5%	6%
Other or working from home	4%	-
Not stated or not at work	4%	-
Total	100%	100%

Table 6.1 *Modal Split Results – CSO Workplace Zone FL0190.*

From the results summarised above it can be noted that a large percentage of employees working at the subject Workplace Zone opted to drive to work every day, with only a small proportion of the workforce choosing sustainable or collective ways of transportation to do so, such as walk, cycle, bus and van.

One of the relevant strategic objectives of the Fingal Development Plan 2023 – 2029 (FDP) is to "*reduce car dependency and promote and facilitate sustainable modes of transport. Prioritise walking, cycling and public transport, while supporting an efficient and effective transport system.*"

It is expected that the interventions proposed as part of the subject application, such as the construction of shared active travel facilities and the provision of a number of strategic-located pedestrian crossing facilities and traffic calming measures, will increase safe and comfort for pedestrian and cyclists while enhancing the connection between the nearest bus stops and the site. These facilities will potentially increase the attractiveness of the use of public bus services, walking and cycling to commute to and from the site and will help reduce the number of future employees choosing to commute in a private car.

The subject TTA is supported by a Mobility Management Plan which outlines a number of actions that can be implemented to help achieve a modal shift towards more sustainable ways of transportation during both the construction of the proposed development (civil infrastructure only) and the operational phase of the future-planned commercial developments to take place within the subject Zones A and F.

All planning applications for future-planned developments shall also contain a Mobility Management Plan to detail the plans on how to monitor and implement the measures to promote sustainable transport.

7 Trip Generation

7.1 Introduction

The development proposed under the subject application relates to the construction of civil infrastructure to service future-planned commercial buildings on lands located to the west of M1 Business Park, referred to as Zone A and Zone F. The traffic arising from the subject application is therefore only associated with the construction of the proposed civil infrastructure, referred to as 'Trip Generation – Construction Phase'.

Each future-planned commercial building will be subject to future planning application and will be assessed individually in terms of access arrangements and trip generation. However, even though these commercial buildings are not proposed under the subject application, to foresee the potential future traffic conditions in the site environs during the Operational Phase of the development (Zones A and F fully constructed and operational) and to simulate/estimate the potential future operational capacity of the local junctions - especially the proposed modified access roundabout, for the purpose of this traffic assessment, a trip generation estimation has been undertaken for the future-planned commercial buildings in Zones A and F.

7.2 Trip Generation – Construction Phase

The construction of the proposed development (civil infrastructure only) is envisaged to take approximately 8 months to complete. During the construction phase, some construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

Based on experience with similar scale developments, it is estimated that, on the busiest construction days, the subject site (both Zones A and F) will attract/generate a total of 22 Light Vehicles (LV) trips per day (11 inbound in the morning and 11 outbound in the evening) on a carpooling basis, and a total of 60 Heavy Vehicles (HV) trips per day (30 inbound and 30 outbound, spread throughout the day).

It should be noted that the majority of the construction traffic will occur outside the traditional network peak hours (if not all as drivers will be instructed to do so), however, for the purpose of the subject assessment, it has been conservatively assumed that 10 HV trips will occur during the network morning peak hour (5 inbound and 5 outbound) and 10 HV trips will occur during the evening peak hour (5 inbound and 5 outbound). For further robustness, all estimated LV trips are assumed to occur during the peak hours. The peak hour trips related to the Construction Phase are shown in Table 7.1.

Zone	Peak Hours Trips - Construction Phase			
	Light Vehicles (LV)		Heavy Vehicles (HV)	
	Arrivals	Departures	Arrivals	Departures
Zone A (Morning Peak)	6	-	3	3
Zone A (Evening Peak)	-	6	3	3
Zone F (Morning Peak)	5	-	2	2
Zone F (Evening Peak)	-	5	2	2
Total (Morning Peak) - Vehicles	11	11	5	5
Total (Evening Peak) - Vehicles	11	11	5	5
Total (Morning Peak) - PCU	11	11	12	12
Total (Evening Peak) - PCU	11	11	12	12

***Table 7.1** Trip Generation – Construction Phase.*

HV traffic figures presented in Table 5.1 above were converted to Passenger Car Units (PCU) based on the 2.3 factor for Heavy Goods Vehicle (HGV/OGV2) as set out in the TII, Project Appraisal Guidelines for National Roads Unit 5.2 – Data Collection, October 2016 – PE-PAG-02016.

7.3 Trip Generation – Operational Phase

To assess the likely impact of the traffic generation arising from the future-planned commercial buildings, TRICS software has been consulted. TRICS is the national standard of trip generation and analysis in Ireland. It is a database system which allows users to identify representative trip rates and to establish potential levels of trip generation for a wide variety of developments.

Trip rates for the future-planned commercial buildings were obtained using TRICS database for the '02 - EMPLOYMENT' land use and 'F - WAREHOUSING (COMMERCIAL)' category. TRICS output report, including TRICS trip rates table, is included in Appendix B of this document. Trip generation calculation for the potential future commercial buildings within Zones A and F is shown in Table 7.2 below.

It is envisaged that Zone A will consist of 7 no. commercial buildings ranging in size from c. 4,000 sqm to c. 10,000 sqm (total of 45,315 sqm in Zone A).

For Zone F, the estimative is 6 no. commercial buildings with areas that vary between c. 2,000 sqm and c. 7,000 sqm (total of 27,830 sqm in Zone F).

Zones **Zone A (45,315 sqm)** **Zone F (27,830 sqm)**	**Peak Hours Trips – Operational Phase**			
	Vehicles (excluding HV)		**HV**	
	Arrivals	**Departures**	**Arrivals**	**Departures**
Zone A (Morning Peak)	149	57	27	27
Zone A (Evening Peak)	44	143	12	15
Zone F (Morning Peak)	92	35	16	16
Zone F (Evening Peak)	27	88	8	9
Total (Morning Peak) – vehicles	241	92	43	43
Total (Evening Peak) – vehicles	71	231	20	24
Total (Morning Peak) – PCU	241	92	99	99
Total (Evening Peak) – PCU	71	231	46	55

***Table 7.2** Trip Generation – Operational Phase.*

HV traffic figures presented above were also converted to PCU based on the 2.3 factor for Heavy Goods Vehicle (HGV/OGV2) as set out in the TII, Project Appraisal Guidelines for National Roads Unit 5.2 – Data Collection, October 2016 – PE-PAG-02016.

TRICS morning and evening peak hours were identified as 08:30 - 09:30 and 17:30 - 18:30, respectively. These peak hours are different from the network peak hours identified from IDASO traffic survey (detailed in Section 3.2.3), however, for the purpose of the subject assessment and to undertake a conservative appraisal of the analysed junctions, the trips calculated in Table 7.2 were assumed to occur during the surveyed network peak hours.

8 Trip Distribution and Assignment

8.1 Construction Phase

Vehicular access to the subject site during the construction phase is proposed via the northern and southern approaches of the Bhailsigh Road (L1140) roundabout, into Zone A and Zone F, respectively.

Given the location of the site – adjacent to Junction 5 the M1 motorway and the lands to the west of the site being rural in nature, it has been determined that the vast majority of the construction traffic will arrive/depart to/from the site via M1 motorway with a minor proportion arriving/departing via the R132. The trip distribution characteristics assumed for the construction phase are as follows:

- 50% from/to south via M1 motorway.
- 40% from/to north via M1 motorway.
- 5% from/to north via R132.
- 5% from/to south via R132.

The trip distribution and assignment figures for the construction phase, based on the trip distribution characteristics above are provided in Appendix C of this report.

8.2 Operational Phase

For the operational phase (future-planned commercial buildings fully constructed and operational within Zones A and F) vehicular access will also be provided via the northern and southern approaches of the Bhailsigh Road (L1140) roundabout.

The likely catchments for the future-planned commercial buildings are currently unknown and will be established during the planning process of each future commercial development. However, given the location of the subject site and the envisaged land use for the future-planned commercial buildings, for the purpose of this assessment, it has been assumed that Dublin City and environs, including Dublin Port, Dublin Airport and the several residential zones will be the origin and destination of the various LV and HV trips to/from the future commercial buildings. Based on that, the trip distribution characteristics assumed for the operational phase are as follows:

- 60% from/to south via M1 motorway.
- 20% from/to north via M1 motorway.
- 5% from/to north via R132.
- 10% from/to south via R132.
- 5% from/to west via Bhailsigh Road (L1140).

The trip distribution and assignment figures for the operational phase, based on the trip distribution characteristics above are provided in Appendix C of this report.

9 Traffic Growth

9.1 Assessed Years

It has been estimated/assumed as part of this assessment that the proposed development (civil infrastructure to serve future-planned commercial buildings) will be completed by late 2024 / early 2025. The future-planned commercial buildings (which will be subject to future planning applications) are assumed to be operational by 2026.

In line with the 'Traffic and Transport Assessment Guidelines' published by the NTA / TII in May 2014, the years that have been assessed in this report are the following:

- 2024 – Construction Phase – Main construction year of proposed civil infrastructure.
- 2026 – Operational Phase – Opening year of future-planned commercial buildings.
- 2031 – Operational Phase – Opening year of future-planned commercial buildings + 5 Years.
- 2041 – Operational Phase – Opening year of future-planned commercial buildings + 15 Years.

9.2 Growth Factors

The background traffic growth rates used to factor up the 2023 surveyed flows into future background traffic flows were based on the '*Table 6.2: Link-Based Growth Rates: Country Annual Growth Rates (excluding Metropolitan Areas)*' within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections, October 2021 (PE-PAG-02017). These are provided in Table 9.1 below. For the purpose of this assessment, central growth factors have been used.

Years	LV Growth Factors	HV Growth Factors
2023 - 2024	1.0180	1.0317
2023 - 2026	1.0550	1.0981
2023 - 2031	1.1400	1.2614
2023 - 2041	1.2113	1.4509

Table 9.1 *Traffic Growth Factors (based on Table 5.2 within TII PE-PAG-02017, October 2021).*

Traffic forecast figures for all assessed scenarios are provided in Appendix C.

10 Junction Assessment

10.1 Assessed Junctions

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

- Junction 1 (Existing Roundabout / Proposed Roundabout): L1140 (Bhailsigh Road) / Site Access Roads
- Junction 2 (Existing Roundabout): L1140 / M1 Northbound Off Slip / M1 Northbound On Slip
- Junction 3 (Existing Roundabout): L1140 / M1 Southbound Off Slip / M1 Southbound On Slip
- Junction 4 (Existing Roundabout): L1140 / R132 / Access Road to Applegreen Petrol Station

The location of each junction was illustrated earlier in Figure 3.3 of this report.

10.2 Peak Hours Traffic Increase

The AM and PM peak hours traffic increase expected to be generated by the development during the assessed construction and operational phases are provided in Table 10.1 and Table 10.2 below, respectively.

Junction No.	Surveyed Flows (pcu)		Construction Traffic (pcu)		Construction Traffic (% Increase)	
	AM P.H.	PM P.H	AM P.H.	PM P.H	AM P.H.	PM P.H
J1	121	97	46	46	38%	47%
J2	574	869	46	46	8%	5%
J3	1,241	1,225	25	25	2%	2%
J4	1,678	1,586	5	5	0.3%	0.3%

Table 10.1 *Surveyed Two-way Traffic and Expected Traffic Increase – Construction Phase.*

Junction No.	Surveyed Flows (pcu)		Operational Traffic (pcu)		Operational Traffic (% Increase)	
	AM P.H.	PM P.H	AM P.H.	PM P.H	AM P.H.	PM P.H
J1	121	97	531	402	439%	414%
J2	574	869	504	382	88%	44%
J3	1,241	1,225	262	255	21%	21%
J4	1,678	1,586	80	60	5%	4%

Table 10.2 *Surveyed Two-way Traffic and Expected Traffic Increase – Operational Phase.*

10.3 Modelling Background

The traffic impacts for both construction and operational phases have been assessed using the traffic modelling software Junctions 10 (ARCADY).

ARCADY is a software for modelling priority-controlled roundabouts. It utilises the roundabout's geometry and flows input by the user and calculates Ratio of Flow to Capacity (RFC), queue lengths, delay values and Level of Service (LOS) for each approach of the roundabout.

Ration of Flow to Capacity (RFC): RFC is a measure of performance which represents the capacity of a junction/traffic lane to accommodate the vehicular demand and indicates how near the network is to the maximum capacity available. An RFC less of 0.85 (85%) generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the RFC approaches 1.0 (100%) traffic flow may become unstable, and long delays and queues may occur.

Queue Length (PCU): is the calculated number of queuing PCU on a junction's approach.

Delay (seconds/PCU): is the average PCU delay experienced on a junction's approach.

Level of Service (LOS): this output shows the level of service values for the time segment, based on the Average Delay per Arriving Vehicles. The LOS are defined by the following letters:

A = Free flow
B = Reasonably free flow
C = Stable flow
D = Approaching unstable flow
E = Unstable flow
F = Forced or breakdown flow

10.4 Assessed Scenarios

The performance of the junctions has been analysed for the critical AM and PM peak hours (07:45 to 08:45 and 16:30 to 17:30, except for Junction 1 which the PM peak hour is from 16:15 to 17:15) for the following scenarios:

Base Year & Do Nothing

- **2023 (B.Y.) Base Year**: existing road network with 2023 surveyed flows.
- **2024 (D.N.) Do Nothing**: existing road network with 2023 surveyed flows factored up.
- **2026 (D.N.) Do Nothing**: existing road network with 2023 surveyed flows factored up.
- **2031 (D.N.) Do Nothing**: existing road network with 2023 surveyed flows factored up.
- **2041 (D.N.) Do Nothing**: existing road network with 2023 surveyed flows factored up.

For the Base Year and all Do Nothing scenarios, all assessed junctions were modelled based on their existing layouts.

Do Something

- **2024 (D.S.) Do Something – Construction Phase**: existing road network with 2023 surveyed flows factored up + traffic generated by the construction of the proposed development (proposed civil infrastructure only).
- **2026 (D.S.) Do Something – Operational Phase**: existing road network with 2023 surveyed flows factored up + traffic generated by the future-planned commercial buildings (subject to future applications).
- **2031 (D.S.) Do Something – Operational Phase**: existing road network with 2023 surveyed flows factored up + traffic generated by the future-planned commercial buildings (subject to future applications).
- **2041 (D.S.) Do Something – Operational Phase**: existing road network with 2023 surveyed flows factored up + traffic generated by the future-planned commercial buildings (subject to future applications).

For all Do Something scenarios, Junction 1 (Site Access Roundabout) has been modelled based on its proposed modified layout (showed in Figure 4.2). There are no layout modifications proposed for the remaining junctions, therefore, for all scenarios they were modelled based on their existing layouts.

10.5 Junction Assessment Results

10.5.1 Junction 1

Junction 1 is an existing two-armed priority-controlled roundabout with an Inscribed Circular Diameter (ICD) of 50 metres and provision for future third and fourth arms (north and south). For the Base Year and all Do Nothing scenarios, Junction 1 has been modelled based on its existing layout where the northern and the southern layouts are not opened to traffic. The ARCADY analysis results are summarised in Table 10.3 below. The arms of the existing Junction 1 were labelled as follows within the ARCADY model:

- **Arm 1**: L1140 (E)
- **Arm 2**: Southern Approach – not opened to traffic.
- **Arm 3**: L1140 (W)
- **Arm 4**: Northern Approach – not opened to traffic.

Arm	AM Peak Hour (07:45 to 08:45)			PM Peak Hour (16:15 to 17:15)		
	Queue (pcu)	Delay (s)	RFC (LOS)	Queue (pcu)	Delay (s)	RFC (LOS)
2023 Base Year						
Arm 1	0.1	3.37	0.07 (A)	0.0	3.31	0.04 (A)
Arm 2	-	-	-	-	-	-
Arm 3	0.0	2.97	0.04 (A)	0.0	2.99	0.04 (A)
Arm 4	-	-	-	-	-	-
2024 Do Nothing						
Arm 1	0.1	3.41	0.07 (A)	0.0	3.35	0.04 (A)
Arm 2	-	-	-	-	-	-
Arm 3	0.0	2.97	0.04 (A)	0.0	3.00	0.04 (A)
Arm 4	-	-	-	-	-	-
2026 Do Nothing						
Arm 1	0.1	3.38	0.08 (A)	0.0	3.32	0.04 (A)
Arm 2	-	-	-	-	-	-
Arm 3	0.0	2.97	0.04 (A)	0.0	3.00	0.05 (A)
Arm 4	-	-	-	-	-	-
2031 Do Nothing						
Arm 1	0.1	3.40	0.08 (A)	0.1	3.36	0.05 (A)
Arm 2	-	-	-	-	-	-
Arm 3	0.0	2.98	0.04 (A)	0.1	3.02	0.05 (A)
Arm 4	-	-	-	-	-	-
2041 Do Nothing						
Arm 1	0.1	3.45	0.09 (A)	0.1	3.38	0.05 (A)
Arm 2	-	-	-	-	-	-
Arm 3	0.0	2.99	0.04 (A)	0.1	3.02	0.05 (A)
Arm 4	-	-	-	-	-	-

***Table 10.3** Junction 1 Existing Layout – ARCADY Analysis Results – Base Year & Do Nothing.*

The modelling results as summarised above indicate that Junction 1 is currently operating well within capacity during both peak hours and would continue to do so for all future Do Nothing scenarios should the proposed development not take place.

For the 2041 Do Nothing scenario the highest RFC is recorded as 0.09 with a corresponding LOS of 'A' occurring on Arm 1 (E) during the AM peak hour. No significant queues or delays are recorded.

As mentioned previously, modifications to Junction 1 are proposed as part of the subject application. Details of the proposed modified junction were provided earlier in Section 4.2.1 of this report. For the Do Something scenarios, Junction 1 has been modelled based on its proposed modified layout and the ARCADY analysis results are summarised in Table 10.4 below. The arms of the proposed modified Junction 1 were labelled as follows within the ARCADY model:

- **Arm 1**: L1140 (E)
- **Arm 2**: Access Road to Zone F (S)
- **Arm 3**: L1140 (W)
- **Arm 4**: Access Road to Zone A (N)

Arm	AM Peak Hour (07:45 to 08:45)			PM Peak Hour (16:15 to 17:15)		
	Queue (pcu)	Delay (s)	RFC (LOS)	Queue (pcu)	Delay (s)	RFC (LOS)
2024 Do Something – Construction Phase						
Arm 1	0.1	3.19	0.09 (A)	0.1	3.18	0.06 (A)
Arm 2	0.0	2.34	0.01 (A)	0.0	2.08	0.01 (A)
Arm 3	0.0	2.81	0.04 (A)	0.0	2.83	0.04 (A)
Arm 4	0.0	2.83	0.01 (A)	0.0	2.52	0.01 (A)
2026 Do Something – Operational Phase						
Arm 1	0.6	4.56	0.34 (A)	0.2	3.54	0.13 (A)
Arm 2	0.1	2.60	0.05 (A)	0.1	2.26	0.06 (A)
Arm 3	0.1	3.27	0.06 (A)	0.1	3.11	0.05 (A)
Arm 4	0.1	3.12	0.09 (A)	0.2	2.98	0.13 (A)
2031 Do Something – Operational Phase						
Arm 1	0.6	4.59	0.34 (A)	0.2	3.56	0.14 (A)
Arm 2	0.1	2.61	0.05 (A)	0.1	2.26	0.06 (A)
Arm 3	0.1	3.28	0.06 (A)	0.1	3.11	0.06 (A)
Arm 4	0.1	3.12	0.09 (A)	0.2	2.98	0.13 (A)
2041 Do Something – Operational Phase						
Arm 1	0.6	4.63	0.35 (A)	0.2	3.57	0.14 (A)
Arm 2	0.1	2.62	0.05 (A)	0.1	2.26	0.06 (A)
Arm 3	0.1	3.29	0.06 (A)	0.1	3.12	0.06 (A)
Arm 4	0.1	3.12	0.09 (A)	0.2	2.99	0.13 (A)

***Table 10.4** Junction 1 Proposed Layout – ARCADY Analysis Results – Do Something.*

The modelling results for the proposed Junction 1 (modified layout) indicate that it would operate well within capacity for the Construction Phase scenario (2024 Do Something) during both peak hours with the highest RFC at 0.09 and a corresponding LOS of 'A' occurring on Arm 1 in the AM. No significant queues or delays were recorded.

For the worst-case Operational Phase scenario (2041 Do Something), with the future-planned commercial buildings in place, the results indicate that the proposed Junction 1 would continue to operate well within capacity during both peak hours with the highest RFC recorded at 0.35 and a corresponding LOS of 'A' also occurring on Arm 1 in the AM. No major queues or delays are recorded.

10.5.2 Junction 2

Junction 2 is an existing four-armed priority-controlled roundabout with an ICD of 34 metres. The southern and northern approaches of the roundabout are formed by the M1 Northbound Off Slip and On Slip, and therefore are entry only and exit only arms, respectively.

As there are no modifications proposed to the geometric design of Junction 2, for all scenarios (Base Year, Do Nothing and Do Something), this junction has been modelled based on its existing layout. The ARCADY analysis results for all scenarios are summarised in Table 10.5 below. The arms of Junction 2 were labelled as follows within the ARCADY model:

- **Arm 1**: M1 Northbound On Slip (N) – exit only
- **Arm 2**: L1140 (E)
- **Arm 3**: M1 Northbound Off Slip (S)
- **Arm 4**: L1140 (W)

Arm	AM Peak Hour (07:45 to 08:45)			PM Peak Hour (16:30 to 17:30)		
	Queue (pcu)	Delay (s)	RFC (LOS)	Queue (pcu)	Delay (s)	RFC (LOS)
2023 Base Year						
Arm 2	0.2	3.08	0.16 (A)	0.3	3.23	0.24 (A)
Arm 3	0.4	4.21	0.25 (A)	0.7	5.05	0.41 (A)
Arm 4	0.0	3.11	0.04 (A)	0.1	3.80	0.07 (A)
2024 Do Nothing						
Arm 2	0.2	3.10	0.16 (A)	0.3	3.26	0.25 (A)
Arm 3	0.4	4.29	0.26 (A)	0.7	5.19	0.42 (A)
Arm 4	0.0	3.13	0.04 (A)	0.1	3.85	0.07 (A)
2026 Do Nothing						
Arm 2	0.2	3.12	0.17 (A)	0.4	3.29	0.25 (A)
Arm 3	0.4	4.37	0.27 (A)	0.8	5.38	0.43 (A)
Arm 4	0.0	3.17	0.04 (A)	0.1	3.93	0.07 (A)
2031 Do Nothing						
Arm 2	0.3	3.20	0.18 (A)	0.4	3.41	0.27 (A)
Arm 3	0.5	4.64	0.30 (A)	0.9	5.89	0.47 (A)
Arm 4	0.0	3.27	0.04 (A)	0.1	4.16	0.08 (A)
2041 Do Nothing						
Arm 2	0.3	3.31	0.19 (A)	0.4	3.49	0.29 (A)
Arm 3	0.6	4.95	0.33 (A)	1.1	6.46	0.51 (A)
Arm 4	0.1	3.38	0.05 (A)	0.1	4.36	0.09 (A)
2024 Do Something – Construction Phase						
Arm 2	0.2	3.14	0.17 (A)	0.4	3.32	0.25 (A)
Arm 3	0.4	4.39	0.27 (A)	0.8	5.38	0.43 (A)
Arm 4	0.1	3.76	0.06 (A)	0.1	4.22	0.09 (A)
2026 Do Something – Operational Phase						
Arm 2	0.4	3.45	0.25 (A)	0.4	3.46	0.28 (A)
Arm 3	1.0	6.27	0.47 (A)	1.1	6.38	0.50 (A)
Arm 4	0.3	4.52	0.21 (A)	0.6	6.24	0.38 (A)
2031 Do Something – Operational Phase						
Arm 2	0.4	3.54	0.26 (A)	0.5	3.58	0.30 (A)
Arm 3	1.2	6.79	0.50 (A)	1.3	7.11	0.55 (A)
Arm 4	0.3	4.69	0.22 (A)	0.7	6.78	0.40 (A)

Arm	AM Peak Hour (07:45 to 08:45)			PM Peak Hour (16:30 to 17:30)		
	Queue (pcu)	Delay (s)	RFC (LOS)	Queue (pcu)	Delay (s)	RFC (LOS)
2041 Do Something – Operational Phase						
Arm 2	0.4	3.60	0.28 (A)	0.5	3.67	0.32 (A)
Arm 3	1.3	7.36	0.53 (A)	1.5	7.86	0.59 (A)
Arm 4	0.3	0.23	0.23 (A)	0.8	7.30	0.42 (A)

Table 10.5 *Junction 2 Existing Layout – ARCADY Analysis Results – All Scenarios.*

The modelling results as summarised above indicate that Junction 2 is currently operating well within capacity during both peak hours and would continue to do so for the 2041 Do Nothing scenario (should the development not take place), with the highest RFC recorded at 0.51 and a corresponding LOS of 'A' occurring on Arm 3 in the PM peak hour. No significant queues or delays are recorded.

For the Construction Phase scenario (2024 Do Something), the results indicate that Junction 2 would also operate well within capacity during both peak hours. The highest RFC is recorded at 0.43 with a corresponding LOS of 'A' also occurring on Arm 3 in the PM. No significant queues or delays are recorded. This demonstrates that Junction 2 would have sufficient capacity to accommodate the estimated traffic arising from the construction of the proposed development (civil infrastructure only).

The modelling results for the worst-case Operational Phase scenario (2041 Do Something), with the future-planned commercial buildings in place, indicate that Junction 2 would continue to operate well within capacity during both peak hours with the highest RFC recorded at 0.59 and a corresponding LOS of 'A' also occurring on Arm 3 in the PM. No significant queues or delays are recorded.

Comparing the model results obtained from the 2041 Do Something with the 2041 Do Nothing scenarios, it can be noted that the traffic impact arising from the future-planned commercial buildings is expected to be moderate on Junction 2, however, this junction would continue to operate well below the 0.85 RFC threshold. The highest RFC - recorded on Arm 3, increases from 0.51 in the 2041 Do Nothing scenario to 0.59 in the Do Something scenario in the PM peak hour, and increases from 0.33 in the 2041 Do Nothing scenario to 0.53 in the 2041 Do Something scenario in the AM peak hour.

It can therefore be determined based on the model results that Junction 2 would have sufficient capacity to accommodate the estimated traffic arising from the future-planned commercial buildings.

10.5.3 Junction 3

Junction 3 is an existing four-armed priority-controlled roundabout with an ICD of 34 metres. The northern and southern approaches of the roundabout are formed by the M1 Southbound Off Slip and On Slip, and therefore are entry only and exit only arms, respectively.

As there are no modifications proposed to the geometric design of Junction 3, for all scenarios (Base Year, Do Nothing and Do Something), this junction has also been modelled based on its existing layout. The ARCADY analysis results for all scenarios are summarised in Table 10.6 below. The arms of Junction 3 were labelled as follows within the ARCADY model:

- **Arm 1**: M1 Southbound Off Slip (N)
- **Arm 2**: L1140 (E)
- **Arm 3**: M1 Southbound On Slip (S) – exit only
- **Arm 4**: L1140 (W)

Arm	AM Peak Hour (07:45 to 08:45)			PM Peak Hour (16:30 to 17:30)		
	Queue (pcu)	Delay (s)	RFC (LOS)	Queue (pcu)	Delay (s)	RFC (LOS)
2023 Base Year						
Arm 1	0.4	4.22	0.26 (A)	0.2	4.09	0.16 (A)
Arm 2	0.6	3.46	0.37 (A)	0.6	3.21	0.35 (A)
Arm 4	0.3	3.33	0.23 (A)	0.5	3.50	0.33 (A)
2024 Do Nothing						
Arm 1	0.4	4.31	0.26 (A)	0.2	4.13	0.16 (A)
Arm 2	0.7	3.50	0.38 (A)	0.6	3.24	0.35 (A)
Arm 4	0.4	3.38	0.23 (A)	0.5	3.53	0.34 (A)
2026 Do Nothing						
Arm 1	0.4	4.41	0.28 (A)	0.2	4.20	0.17 (A)
Arm 2	0.7	3.58	0.39 (A)	0.6	3.31	0.37 (A)
Arm 4	0.4	3.42	0.24 (A)	0.6	3.59	0.35 (A)
2031 Do Nothing						
Arm 1	0.5	4.71	0.30 (A)	0.3	4.45	0.19 (A)
Arm 2	0.8	3.84	0.42 (A)	0.7	3.50	0.40 (A)
Arm 4	0.4	3.55	0.26 (A)	0.6	3.76	0.38 (A)
2041 Do Nothing						
Arm 1	0.6	5.03	0.33 (A)	0.3	4.69	0.20 (A)
Arm 2	0.9	4.11	0.46 (A)	0.8	3.68	0.42 (A)
Arm 4	0.5	3.70	0.28 (A)	0.7	3.95	0.40 (A)
2024 Do Something – Construction Phase						
Arm 1	0.4	4.40	0.27 (A)	0.2	4.23	0.17 (A)
Arm 2	0.7	3.56	0.38 (A)	0.6	3.31	0.36 (A)
Arm 4	0.4	3.41	0.24 (A)	0.6	3.57	0.35 (A)
2026 Do Something – Operational Phase						
Arm 1	0.6	5.45	0.36 (A)	0.3	5.14	0.22 (A)
Arm 2	0.9	4.38	0.46 (A)	0.7	3.91	0.41 (A)
Arm 4	0.6	3.96	0.34 (A)	1.0	4.68	0.50 (A)
2031 Do Something – Operational Phase						
Arm 1	0.7	5.90	0.40 (A)	0.4	5.49	0.24 (A)
Arm 2	1.1	4.75	0.49 (A)	0.8	4.15	0.44 (A)
Arm 4	0.7	4.11	0.36 (A)	1.2	4.96	0.52 (A)
2041 Do Something – Operational Phase						
Arm 1	0.8	6.38	0.43 (A)	0.4	5.83	0.26 (A)
Arm 2	1.2	5.15	0.53 (A)	1.0	4.41	0.47 (A)
Arm 4	0.7	4.28	0.38 (A)	1.3	5.22	0.55 (A)

Table 10.6 *Junction 3 Existing Layout – ARCADY Analysis Results – All Scenarios.*

The modelling results as summarised above indicate that Junction 3 is currently operating well within capacity during both peak hours and would continue to do so for the for the 2041 Do Nothing scenario (should the development not take place) with the highest RFC recorded at 0.46 and a corresponding LOS of 'A' occurring on Arm 2 in the AM peak hour.

For the Construction Phase scenario (2024 Do Something), the results indicate that Junction 3 would also operate well within capacity during both peak hours. The highest RFC is recorded at 0.38 with a corresponding LOS of 'A' occurring on Arm 2 in the AM peak hour. No significant queues or delays are

recorded. The results demonstrate that Junction 3 would have sufficient capacity to accommodate the estimated traffic arising from the construction of the proposed development (civil infrastructure only).

The modelling results for the worst-case Operational Phase scenario (2041 Do Something), with the future-planned commercial buildings in place, indicate that Junction 3 would continue to operate well within capacity during both peak hours with the highest RFC recorded at 0.55 and a corresponding LOS of 'A' occurring on Arm 4 in the PM. No significant queues or delays are recorded.

Comparing the model results obtained from the 2041 Do Something with the 2041 Do Nothing scenarios, it can be noted that the traffic impact arising from the future-planned commercial buildings is expected to be not significant on Junction 3, and this junction would continue to operate well below the 0.85 RFC threshold. The highest RFC - recorded on Arm 4, increases from 0.40 in the 2041 Do Nothing scenario to 0.55 in the Do Something scenario in the PM peak hour, and increases from 0.28 in the 2041 Do Nothing scenario to 0.38 in the 2041 Do Something scenario in the AM peak hour.

It can therefore be determined based on the model results that Junction 3 would have sufficient capacity to accommodate the estimated traffic arising from the future-planned commercial buildings.

10.5.4 Junction 4

Junction 4 is an existing four-armed priority-controlled roundabout with an ICD of 50 metres. The northwestern approach is the existing access to an Applegreen Petrol Station. For all scenarios, it has also been modelled based on its existing layout. The ARCADY analysis results for all scenarios are summarised in Table 10.7. The arms of Junction 4 were labelled as follows within the ARCADY model:

- **Arm 1**: R132 (NE)
- **Arm 2**: R132 (SE)
- **Arm 3**: L1140 (SW)
- **Arm 4**: Access Road to Applegreen Petrol Station (W)

Arm	AM Peak Hour (07:45 to 08:45)			PM Peak Hour (16:30 to 17:30)		
	Queue (pcu)	Delay (s)	RFC (LOS)	Queue (pcu)	Delay (s)	RFC (LOS)
2023 Base Year						
Arm 1	0.9	4.78	0.47 (A)	0.4	3.11	0.26 (A)
Arm 2	0.3	3.24	0.22 (A)	0.4	3.03	0.28 (A)
Arm 3	0.8	4.62	0.42 (A)	0.8	4.60	0.45 (A)
Arm 4	0.1	2.45	0.07 (A)	0.1	2.42	0.08 (A)
2024 Do Nothing						
Arm 1	1.0	4.89	0.48	0.4	3.14	0.27 (A)
Arm 2	0.4	3.31	0.23	0.4	3.07	0.29 (A)
Arm 3	0.8	4.72	0.43	0.9	4.70	0.46 (A)
Arm 4	0.1	2.48	0.07	0.1	2.45	0.09 (A)
2026 Do Nothing						
Arm 1	1.1	5.12	0.50 (A)	0.4	3.19	0.28 (A)
Arm 2	0.4	3.38	0.24 (A)	0.5	3.13	0.30 (A)
Arm 3	0.9	4.89	0.45 (A)	0.9	4.86	0.47 (A)
Arm 4	0.1	2.52	0.08 (A)	0.1	2.48	0.09 (A)
2031 Do Nothing						
Arm 1	1.3	5.84	0.55 (A)	0.4	3.35	0.30 (A)
Arm 2	0.4	3.58	0.27 (A)	0.5	3.32	0.33 (A)
Arm 3	1.1	5.36	0.49 (A)	1.1	5.31	0.51 (A)
Arm 4	0.1	2.62	0.09 (A)	0.1	2.59	0.10 (A)

2041 Do Nothing						
Arm 1	1.5	6.61	0.60 (A)	0.5	3.49	0.32 (A)
Arm 2	0.5	3.84	0.29 (A)	0.6	3.49	0.35 (A)
Arm 3	1.3	5.88	0.53 (A)	1.3	5.79	0.55 (A)
Arm 4	0.1	2.74	0.09 (A)	0.1	2.68	0.11 (A)
2024 Do Something – Construction Phase						
Arm 1	1.0	4.93	0.48 (A)	0.4	3.16	0.27 (A)
Arm 2	0.4	3.29	0.23 (A)	0.4	3.09	0.29 (A)
Arm 3	0.9	4.75	0.43 (A)	0.9	4.70	0.46 (A)
Arm 4	0.1	2.48	0.07 (A)	0.1	2.45	0.09 (A)
2026 Do Something – Operational Phase						
Arm 1	1.1	5.38	0.52 (A)	0.4	3.29	0.29 (A)
Arm 2	0.4	3.50	0.27 (A)	0.5	3.20	0.31 (A)
Arm 3	1.0	5.10	0.47 (A)	1.1	5.17	0.51 (A)
Arm 4	0.1	2.55	0.08 (A)	0.1	2.53	0.09 (A)
2031 Do Something – Operational Phase						
Arm 1	1.4	6.14	0.57 (A)	0.5	3.44	0.31 (A)
Arm 2	0.5	3.72	0.29 (A)	0.6	3.37	0.34 (A)
Arm 3	1.2	5.60	0.51 (A)	1.3	5.70	0.55 (A)
Arm 4	0.1	2.67	0.09 (A)	0.1	2.64	0.10 (A)
2041 Do Something – Operational Phase						
Arm 1	1.7	6.99	0.61 (A)	0.5	3.57	0.33 (A)
Arm 2	0.6	3.98	0.32 (A)	0.6	3.55	0.36 (A)
Arm 3	1.4	6.19	0.55 (A)	1.5	6.22	0.58 (A)
Arm 4	0.1	2.78	0.10 (A)	0.1	2.74	0.11 (A)

Table 10.7 *Junction 4 Existing Layout – ARCADY Analysis Results – All Scenarios.*

The modelling results indicate that Junction 4 is currently operating well within capacity during both peak hours and would continue to do so for the for the 2041 Do Nothing scenario, should the development not take place, with the highest RFC recorded at 0.60 and a corresponding LOS of 'A' occurring on Arm 1 in the AM peak hour.

For the Construction Phase scenario (2024 Do Something), the results indicate that Junction 4 would also operate well within capacity during both peak hours with the highest RFC recorded at 0.48 and a corresponding LOS of 'A' occurring on Arm 1 in the AM peak hour. No significant queues or delays are recorded, which demonstrate that Junction 4 would have sufficient capacity to accommodate the estimated traffic arising from the construction of the proposed development (civil infrastructure only).

The modelling results for the worst-case Operational Phase scenario (2041 Do Something), with the future-planned commercial buildings in place, indicate that Junction 4 would continue to operate well within capacity during both peak hours with the highest RFC recorded at 0.61 and a corresponding LOS of 'A' occurring on Arm1 in the AM. No significant queues or delays are recorded. Comparing with the results from the 2041 Do Nothing scenario, it can be noted that the traffic impact arising from the future-planned commercial buildings is expected to be minimal on Junction 4, and this junction would continue to operate well below the 0.85 RFC threshold. The highest RFC - recorded on Arm 1, increases from 0.60 in the 2041 Do Nothing scenario to 0.61 in the Do Something scenario in the AM, and increases from 0.32 in the 2041 Do Nothing scenario to 0.33 in the 2041 Do Something scenario in the PM.

It can therefore be determined based on the model results that Junction 4 would have sufficient capacity to accommodate the estimated traffic arising from the future-planned commercial buildings.

11 Additional Construction Traffic Impacts & Mitigation Measures

11.1 Additional Construction Traffic Impacts

Throughout the construction phase there will be HGV traffic movements as well as vehicles movements related to the appointed contractors and their staff. The traffic impact associated with these vehicle movements on each local junction during the peak hours have been discussed in the sections above.

In addition to these assessed traffic impacts, there is also potential for construction traffic to impact from a noise, vibration and dust perspective in relation to the local road network. Deliveries to/from the site by HGV will impact on noise and vibration levels, whilst dust may result from vehicles travelling along gravel roads and from general earthwork activities. The potential for inappropriate parking, particularly along the L1140 whilst waiting for access to the site, may also impact local road users.

There is also potential for conflicts with pedestrian/cyclist movements during the construction of the proposed upgrade works on the L1140 (shared active travel facility and roundabout modification).

11.2 Mitigation Measures

A Construction and Environment Management Plan (CEMP) has been prepared for the subject application in order to provide guidance on how to minimise the potential impact of the construction stage on the safety and amenity of other users of the public road. The CEMP, which accompanies the documentation package under a separate cover, considers the following aspects:

- Dust and dirt control measures;
- Noise assessment and control measures;
- Routes to be used by vehicles;
- Working hours of the site;
- Details of construction traffic forecasts;
- Times when vehicle movements and deliveries will be made to the site;
- Facilities for loading and unloading;
- Facilities for parking cars and other vehicles.

The specific measures will include, but not limited to the following:

- Issue of instructions and maps on getting to site to each supplier sub-contractor to avoid ‘lost’ construction traffic travelling on unapproved routes;
- Ongoing assessment of the most appropriate routes for construction traffic to and from the site;
- Use of banksman to control the entry and exit of construction vehicles;
- Not allowing construction traffic to wait on public roads;
- Schedule the delivery of materials daily;
- Provision of vehicle and wheel washing facilities on site.

Further to the above, a detailed Construction Management Plan (CMP) and a Construction Traffic Management Plan (CTMP) will also be prepared by the main contractor prior to the construction stage, which will outline the site logistics and indicate the site aspects such as the site location and boundary lines, diversion of pedestrian and cycling routes, location of loading and unloading areas and material storage, amongst others. Particular care will be taken to ensure that active travel routes are suitably maintained or appropriately diverted as necessary during the construction period.

12 Summary and Conclusion

CSEA have been commissioned by Vida M1 Limited to prepare this Traffic & Transport Assessment (TTA) in support of a planning application for the construction of the civil infrastructure to service future-planned developments on lands situated along the M1 Motorway - near Junction 5, in the Townlands of Rowans Big and Rowans Little, Fingal County Council (FCC).

The subject lands are situated to the west of the M1 motorway approximately 5.5km northeast of Lusk and 5.5km southwest of Balbriggan.

The Bhailsigh Road (L1140), bisects the site in an east-west direction and divides the lands into two zones. The northern portion designated as Zone A and the southern portion designated as Zone F. Within the subject red line boundary L1140 features an existing roundabout which currently provides the access to both Zones.

Even though the future-planned commercial buildings are not proposed under the subject application, the potential transport impacts associated with them were considered in this assessment. This TTA provided a comprehensive review of all the potential transport impacts associated with the overall development during both construction and operational phases. The construction phase assessment specifically addressed the transportation effects associated with the construction of the proposed civil infrastructure outlined in this application, while the operational phase related to the potential future transportation impacts associated with the operation of the future-planned commercial buildings.

It was estimated that, on the busiest construction days, the site will attract/generate a total of 22 Light Vehicles (LV) trips per day (11 inbound in the morning and 11 outbound in the evening) and a total of 60 Heavy Vehicles (HV) trips per day (30 inbound and 30 outbound, spread throughout the day). It was conservatively assumed that 10 HV trips will occur during the network morning peak hour (5 inbound and 5 outbound) and 10 HV trips will occur during the evening peak hour (5 inbound and 5 outbound). All estimated LV trips were assumed to occur during the AM and PM peak hours.

For the operational phase, it is envisaged that Zone A, when fully constructed, will consist of 7 no. commercial buildings ranging in size from c. 4,000 sqm to c. 10,000 sqm (total of 45,315 sqm in Zone A). For Zone F, the estimative is 6 no. commercial buildings with areas that vary between c. 2,000 sqm and c. 7,000 sqm (total of 27,830 sqm in Zone F).

The traffic generation arising from the future-planned commercial buildings, has been estimated using TRICS database. In summary, it was estimated that all future-planned commercial buildings (both within Zone A and Zone F) will attract/generate a total of 431 PCU trips in the AM peak hour (340 PCU arrivals and 191 PUC departures) and a total of 463 PCU trips in the PM peak hour (117 PCU arrivals and 286 PCU departures).

Vehicular access to the site is proposed through the Bhailsigh Road (L1140) roundabout which is projected to be upgraded/modified in accordance with the Transport Infrastructure Ireland (TII) roundabout design standards. The proposed roundabout upgrades include the enlargement of the main central island by introducing a 2.0m-wide central overrun area capable of being mounted by trailers and HGVs, reduction of circulating lanes width from 9.5m to 7.5m, introduction of a signalised zebra crossing on the eastern approach, introduction of uncontrolled crossings on the northern and southern approaches, maintenance of existing ICD and maintenance of existing pedestrian crossings on the western approach.

Access to Zone A is intended through the extension of the northern approach of the modified roundabout, while access to Zone F is proposed through the extension of the southern approach.

Traffic surveys were carried out by ‘IDASO’ on the following junctions:

Junction 1 (Existing Roundabout / Proposed Roundabout): L1140 (Bhailsigh Road) / Site Access Roads

Junction 2 (Existing Roundabout): L1140 / M1 Northbound Off Slip / M1 Northbound On Slip

Junction 3 (Existing Roundabout): L1140 / M1 Southbound Off Slip / M1 Southbound On Slip

Junction 4 (Existing Roundabout): L1140 / R132 / Access Road to Applegreen Petrol Station

The industry standards traffic modelling software Junction 10 (ARCADY) has been used to assess the performance of the junctions.

The modelling results of each junction, including the proposed site access roundabout (Junction 1), indicate that all junctions are currently operating well within capacity during both the AM and PM peak hours and would continue to do so for the future assessed Construction Phase (construction of proposed civil infrastructure only) and Operational Phase (operation of future-planned commercial buildings) scenarios. No relevant changes in queue lengths or delays were recorded, which indicate that all junctions will have sufficient capacity to accommodate the traffic arising during both construction and operational phases.

To improve active travel connectivity between the site access and the public transport facilities along R132, as part of the subject application it is also proposed to construct 3.0m-wide shared paths along both sides of the L1140, commencing at the L1140 site access roundabout, extend along the M1 overbridge, and connecting to the existing pedestrian infrastructure at the Applegreen Roundabout (R132). This facility is envisaged to enhance the attractiveness of the available public bus service, while offering cyclist and vulnerable users a safer and more comfortable link between the site and the R132.

Appendices

Appendix A – IDASO Survey Results

IDASO
Innovative Data Solutions

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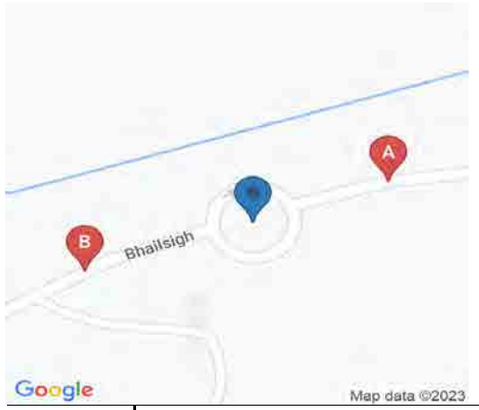
Data Analysis Services
Traffic-Transportation- Commercial-Innovation

304 23457 - M1 Motorway

with compliments

IDASO

Survey Name: 304 23457 - M1 Motorway
Date: Tue 10 Oct 2023 — Wed 11 Oct 2023



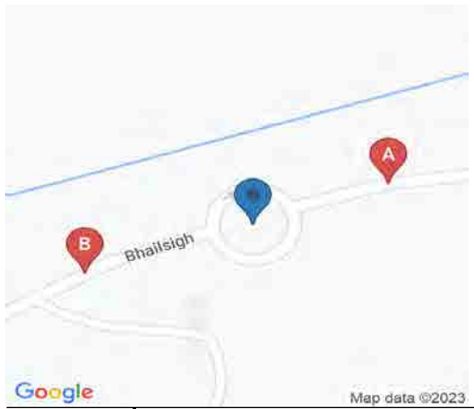
IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 1
Location: L1140 (E/W)/Future Site Access (N)/Future Site Access (S)
Date: Tue 10-Oct-2023

	A => A									A => B									B => A								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
00:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
00:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5	0	0	2	0	0	0	0	2	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
01:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	1	1	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	1	1	0	0	0	2	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
05:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2
05:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3

05:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	6	0	1	0	0	7	7.5
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
06:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4
06:30	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6	0	0	2	0	0	0	0	2	2
06:45	0	0	0	0	0	0	0	0	0	0	0	8	6	1	0	0	15	15.5	0	0	2	4	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	13	8	1	0	0	22	22.5	0	0	10	5	0	0	0	15	15
07:00	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10	0	0	2	2	0	0	0	4	4
07:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	5	0	0	0	0	5	5
07:30	0	0	0	0	0	0	0	0	0	0	1	11	3	0	1	0	16	16.7	0	0	2	3	0	1	0	6	7.3
07:45	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	8	1	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	0	0	1	33	6	0	1	0	41	41.7	0	0	17	6	0	1	0	24	25.3
08:00	0	0	0	0	0	0	0	0	0	1	0	4	3	0	0	0	8	7.2	0	0	9	3	0	0	0	12	12
08:15	0	0	0	0	0	0	0	0	0	0	0	15	2	0	1	0	18	19.3	0	0	11	1	0	0	0	12	12
08:30	0	0	1	0	0	0	0	1	1	0	0	8	2	2	0	0	12	13	0	0	7	1	0	0	0	8	8
08:45	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8	0	0	4	1	2	0	0	7	8
H/TOT	0	0	1	0	0	0	0	1	1	1	0	32	10	2	1	0	46	47.5	0	0	31	6	2	0	0	39	40
09:00	0	0	0	0	0	0	0	0	0	0	0	9	0	1	1	0	11	12.8	0	0	3	1	2	0	0	6	7
09:15	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13	0	0	2	1	0	0	0	3	3
09:30	0	0	0	0	0	0	0	0	0	0	0	10	3	1	0	0	14	14.5	0	0	5	2	0	0	0	7	7
09:45	0	0	1	0	0	0	0	1	1	0	0	5	2	0	0	0	7	7	0	0	5	2	0	0	0	7	7
H/TOT	0	0	1	0	0	0	0	1	1	0	0	34	8	2	1	0	45	47.3	0	0	15	6	2	0	0	23	24
10:00	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	6	7	0	0	8	4	1	0	0	13	13.5
10:15	0	0	1	0	0	1	0	2	3.3	0	0	7	2	2	0	0	11	12	0	0	4	3	0	0	0	7	7
10:30	0	0	1	1	0	0	0	2	2	0	0	2	3	0	0	0	5	5	0	0	5	0	0	0	0	5	5
10:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	5	2	0	0	0	7	7
H/TOT	0	0	2	1	0	1	0	4	5.3	0	0	13	7	4	0	0	24	26	0	0	22	9	1	0	0	32	32.5
11:00	0	0	0	0	0	0	0	0	0	1	0	7	6	2	0	0	16	16.2	0	0	4	0	0	0	0	4	4
11:15	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8	0	0	1	3	0	0	0	4	4
11:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4.3	0	0	4	2	1	0	0	7	7.5
11:45	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	4	2	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	1	0	23	10	2	1	0	37	38.5	0	0	13	7	1	0	0	21	21.5
12:00	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	6	2	0	0	0	8	8
12:15	0	0	0	0	0	1	0	1	2.3	0	0	4	2	1	0	0	7	7.5	0	0	6	2	1	0	0	9	9.5
12:30	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	5	5	0	0	7	0	2	0	0	9	10
12:45	0	0	0	0	0	1	0	1	2.3	0	0	6	2	0	0	0	8	8	0	0	4	1	0	0	0	5	5
H/TOT	0	0	0	0	0	2	0	2	4.6	0	0	18	9	1	0	0	28	28.5	0	0	23	5	3	0	0	31	32.5
13:00	0	0	1	0	0	0	0	1	1	0	0	12	0	2	0	0	14	15	0	0	6	1	0	0	0	7	7
13:15	0	0	0	0	0	0	0	0	0	0	0	5	2	1	0	0	8	8.5	0	0	7	3	0	0	0	10	10
13:30	0	0	0	0	0	0	0	0	0	0	0	3	4	1	0	0	8	8.5	0	0	3	2	1	0	0	6	6.5
13:45	0	0	1	0	0	0	0	1	1	0	0	12	5	0	0	0	17	17	0	0	9	1	0	0	0	10	10
H/TOT	0	0	2	0	0	0	0	2	2	0	0	32	11	4	0	0	47	49	0	0	25	7	1	0	0	33	33.5

22:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	1	0	0	0	0	1	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	15	3	0	4	0	22	27.2	2	1	440	126	21	4	0	594	607.5	0	0	363	100	15	0	0	479	487.8



IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 1
Location: L1140 (E/W)/Future Site Access (N)/Future Site Access (S)
Date: Wed 11-Oct-2023

	A => A									A => B										B => A								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1
04:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	2	2	0	0	0	4	4
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
05:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
05:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	6	1	0	0	0	7	7
06:00	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	3	1	0	0	0	4	4
06:15	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	3	0	0	0	0	3	3
06:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1
06:45	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	15	15	0	0	4	1	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	15	7	0	0	0	22	22	0	0	10	3	0	0	0	13	13
07:00	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6	0	0	4	0	0	0	0	4	4
07:15	0	0	1	0	0	0	0	1	1	0	0	5	3	0	0	0	8	8	0	0	8	0	0	0	0	8	8
07:30	0	0	0	0	0	0	0	0	0	0	0	10	1	2	0	0	13	14	0	0	4	0	1	0	0	5	5.5
07:45	0	0	0	0	1	0	0	1	1.5	0	0	17	8	1	0	0	26	26.5	0	0	13	2	0	0	0	15	15
H/TOT	0	0	1	0	1	0	0	2	2.5	0	0	36	14	3	0	0	53	54.5	0	0	29	2	1	0	0	32	32.5
08:00	0	0	0	0	0	0	0	0	0	0	0	10	5	0	0	0	15	15	0	0	8	2	0	0	0	10	10
08:15	0	0	0	0	0	0	0	0	0	0	0	20	3	0	0	0	23	23	0	0	6	0	0	0	0	6	6
08:30	0	0	0	1	0	0	0	1	1	0	0	6	2	1	1	0	10	11.8	0	0	9	1	0	0	0	10	10
08:45	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	10	10	0	0	4	3	0	1	0	8	9.3
H/TOT	0	0	0	1	0	0	0	1	1	0	0	41	15	1	1	0	58	59.8	0	0	27	6	0	1	0	34	35.3
09:00	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	3	1	0	0	0	4	4
09:15	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	10	10.5	0	0	2	5	1	0	0	8	8.5
09:30	0	0	0	0	0	0	0	0	0	0	0	7	2	1	0	0	10	10.5	0	0	9	2	2	0	0	13	14
09:45	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16	0	0	6	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	41	7	2	0	0	50	51	0	0	20	8	3	0	0	31	32.5
10:00	0	0	0	0	0	0	0	0	0	0	0	6	2	0	1	0	9	10.3	0	0	3	2	0	0	0	5	5
10:15	0	0	0	0	0	0	0	0	0	2	0	4	1	1	1	0	9	9.2	0	0	7	1	1	0	0	9	9.5
10:30	0	0	1	0	0	0	0	1	1	0	0	5	0	3	0	0	8	9.5	0	0	5	2	1	0	0	8	8.5
10:45	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6	0	0	9	0	1	0	0	10	10.5
H/TOT	0	0	1	0	0	0	0	1	1	2	0	19	5	4	2	0	32	35	0	0	24	5	3	0	0	32	33.5
11:00	0	0	1	0	0	0	0	1	1	0	0	8	2	0	0	0	10	10	0	0	6	1	0	0	0	7	7
11:15	0	0	0	1	1	0	0	2	2.5	0	0	8	0	0	0	0	8	8	0	0	3	0	0	0	0	3	3
11:30	0	0	1	0	0	0	0	1	1	0	0	5	1	0	0	0	6	6	0	0	4	1	0	0	0	5	5
11:45	0	0	0	1	1	0	0	2	2.5	0	0	9	1	1	0	0	11	11.5	0	0	6	0	0	0	0	6	6
H/TOT	0	0	2	2	2	0	0	6	7	0	0	30	4	1	0	0	35	35.5	0	0	19	2	0	0	0	21	21

12:00	0	0	0	0	0	0	0	0	0	0	0	6	2	2	0	0	10	11	0	0	6	2	1	0	0	9	9.5
12:15	0	0	0	0	0	0	0	0	0	0	0	7	6	0	0	0	13	13	0	0	4	4	1	0	0	9	9.5
12:30	0	0	0	0	0	0	0	0	0	0	0	6	4	0	0	0	10	10	0	0	4	0	1	0	0	5	5.5
12:45	0	0	1	0	0	0	0	1	1	0	0	8	3	1	0	0	12	12.5	0	0	7	5	1	0	0	13	13.5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	27	15	3	0	0	45	46.5	0	0	21	11	4	0	0	36	38
13:00	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	8	0	1	0	0	9	9.5
13:15	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	5	2	0	0	0	7	7
13:30	0	0	0	1	0	0	0	1	1	0	0	10	2	0	0	0	12	12	0	0	4	0	0	0	0	4	4
13:45	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	7	5	0	0	0	12	12
H/TOT	0	0	0	1	0	0	0	1	1	0	0	27	6	0	0	0	33	33	0	0	24	7	1	1	0	32	32.5
14:00	0	0	2	0	0	0	0	2	2	0	0	7	1	0	0	0	8	8	0	0	8	0	1	0	0	9	9.5
14:15	0	0	1	0	0	0	0	1	1	0	0	4	3	0	0	0	7	7	0	0	8	1	0	0	0	9	9
14:30	0	0	0	0	0	0	0	0	0	0	0	8	2	1	0	0	11	11.5	0	0	5	0	0	0	0	5	5
14:45	0	0	0	0	0	0	0	0	0	0	0	5	3	2	0	0	10	11	0	0	10	1	0	0	0	11	11
H/TOT	0	0	3	0	0	0	0	3	3	0	0	24	9	3	0	0	36	37.5	0	0	31	2	1	0	0	34	34.5
15:00	0	0	1	0	0	0	0	1	1	0	0	11	3	0	0	0	14	14	0	0	10	1	0	0	0	11	11
15:15	0	0	0	0	1	0	0	1	1.5	0	0	6	1	1	0	0	8	8.5	0	0	10	0	0	0	0	10	10
15:30	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	0	6	4	1	0	0	11	11.5
15:45	0	0	1	0	0	0	0	1	1	0	0	12	2	0	0	0	14	14	0	0	4	3	1	0	0	8	8.5
H/TOT	0	0	2	0	1	0	0	3	3.5	0	0	39	8	1	0	0	48	48.5	0	0	30	8	2	0	0	40	41
16:00	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10	0	0	10	0	0	0	0	10	10
16:15	0	0	1	0	0	0	0	1	1	0	0	7	3	0	0	0	10	10	0	0	13	2	0	0	0	15	15
16:30	0	0	0	2	1	0	0	3	3.5	0	0	5	2	0	0	0	7	7	0	0	12	3	0	0	0	15	15
16:45	0	0	0	0	0	0	0	0	0	0	0	10	2	1	0	0	13	13.5	1	0	8	2	0	0	0	11	10.2
H/TOT	0	0	1	2	1	0	0	4	4.5	0	0	30	9	1	0	0	40	40.5	1	0	43	7	0	0	0	51	50.2
17:00	0	0	1	0	0	0	0	1	1	0	0	9	0	1	0	0	10	10.5	0	0	9	1	0	0	0	10	10
17:15	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	5	1	1	0	0	7	7.5
17:30	0	0	1	0	0	0	0	1	1	1	0	13	0	0	0	0	14	13.2	0	0	11	2	0	0	0	13	13
17:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	0	2	2	0	0	0	4	4
H/TOT	0	0	2	0	0	0	0	2	2	1	0	39	3	1	0	0	44	43.7	0	0	27	6	1	0	0	34	34.5
18:00	0	0	0	0	0	0	0	0	0	0	0	7	3	0	0	0	10	10	1	0	4	2	0	0	0	7	6.2
18:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	4	1	1	0	0	6	6.5
18:30	0	0	1	0	0	0	0	1	1	0	0	5	2	0	1	0	8	9.3	0	0	3	1	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	6	1	0	0	0	7	7
H/TOT	0	0	1	0	0	0	0	1	1	0	0	22	6	0	1	0	29	30.3	1	0	17	5	1	0	0	24	23.7
19:00	0	0	0	0	1	0	0	1	1.5	0	0	9	2	0	0	0	11	11	0	0	4	0	0	1	0	5	6.3
19:15	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0	8	1	0	0	0	9	9
19:30	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0	0	5	1	0	0	0	6	6
19:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	7	1	0	0	0	8	8
H/TOT	0	0	1	0	1	0	0	2	2.5	0	0	26	4	0	0	0	30	30	0	0	24	3	0	1	0	28	29.3
20:00	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	9	8.4	0	0	3	0	0	1	0	4	5.3
20:15	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10	0	0	4	1	0	0	0	5	5

20:30	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	1	1	0	0	0	2	2
20:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	1	27	3	0	0	0	31	30.4	0	0	11	2	0	1	0	14	15.3
21:00	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	2	0	0	0	0	2	2
21:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4
21:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2
21:45	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	12	12	0	0	8	0	0	0	0	8	8
22:00	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3	2.2	0	0	1	0	0	0	0	1	1
22:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
22:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
22:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	9	0	0	0	0	10	9.2	0	0	3	0	0	0	0	3	3
23:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
23:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
23:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2
23:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	5	0	0	0	0	5	5
24 TOT	0	0	16	6	6	0	0	28	31	4	1	474	118	22	4	0	623	635.4	2	0	381	80	17	3	0	483	493.8

B => B								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1

B => B								
P/C	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	1	0	0	0	0	1	1
0	0	0	0	1	0	0	1	1.5
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	1	1.5
0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1
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0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

RECEIVED: 19/04/2024

0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
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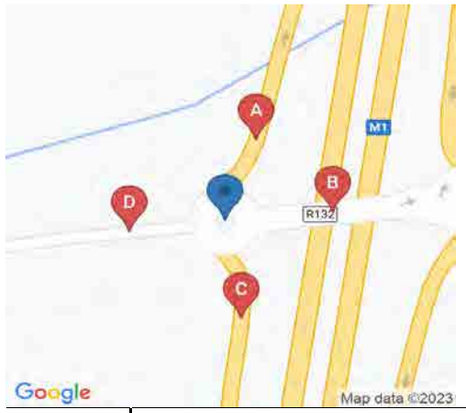
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	5	0	1	0	0	6	6.5



IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 2
Location: L1140 (E/W)/M1 Northbound Off Slip (S)/M1 Northbound On Slip (N)
Date: Tue 10-Oct-2023

	A => A									A => B									A => C									
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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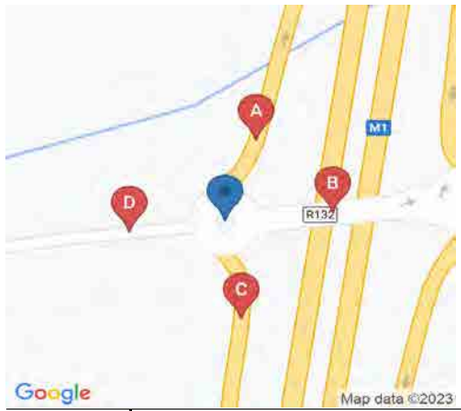
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 2
Location: L1140 (E/W)/M1 Northbound Off Slip (S)/M1 Northbound On Slip (N)
Date: Wed 11-Oct-2023

	A => A									A => B									A => C								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A => D								B => A									B => B									B => C			
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	6	0	0	2	0	8	10.6	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	6.6	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	10	1	0	4	0	15	20.2	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	10	1	0	4	0	15	20.2	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	4	7.9	0	0	0	0	0	0	0	0	0	0	0	0	0
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A => D								B => A									B => B									B => C			
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV
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					B => D									C => A									C => B						
OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
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					B => D									C => A									C => B						
OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
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		C => C									C => D									D => A								
TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
8	9.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
11	12.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	36.1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0
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12	13.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
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10	12.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	22.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9	10.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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9	11.3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
28	35.7	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
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8	9.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	7.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

9	11.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
26	34	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
13	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	19.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	36.4	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0
25	33	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
82	109	0	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0
24	30.7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0
32	40.7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
42	48.7	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
77	92.3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	
175	212.4	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	1	0	0	0	0	1	1	0	
57	67.4	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	
54	68.2	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	3	0	0	0	0	3	3	0	
53	58.6	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	0	2	0	0	0	0	2	2	0	
61	71.3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	
225	265.5	0	0	0	0	0	0	0	0	0	0	0	12	6	1	0	0	19	19.5	0	0	8	0	0	0	0	8	8	0	
42	48.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	
42	52.2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	
46	53.7	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	7	7.5	0	0	1	0	0	0	0	1	1	0	
44	51.4	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	
174	205.5	0	0	0	0	0	0	0	0	0	0	0	9	3	1	0	0	13	13.5	0	0	3	0	0	0	0	3	3	0	
41	54.9	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	1	0	0	0	1	1	0	
39	51.2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	
48	60.2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	
41	50.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	
169	216.8	0	0	0	0	0	0	0	0	0	0	0	3	3	1	0	0	7	7.5	0	0	4	1	0	0	0	5	5	0	
47	57	0	0	0	0	0	0	0	0	0	0	0	4	4	2	0	0	10	11	0	0	1	0	0	0	0	1	1	0	
39	45.7	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	
47	48.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.3	0	0	1	1	1	0	0	3	3.5	0	
37	47.1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	
170	198.5	0	0	0	0	0	0	0	0	0	0	0	7	5	2	2	0	16	19.6	0	0	2	1	1	0	0	4	4.5	0	
58	71.7	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	
53	61.8	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	2	0	0	0	0	2	2	0	
43	52.3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	
59	69.9	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	1	0	1	2.3	0	
213	255.7	0	0	0	0	0	0	0	0	0	0	0	4	4	1	0	0	9	9.5	0	0	4	0	0	1	0	5	6.3	0	
65	74.8	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5	0	0	0	1	0	0	0	1	1	0	
55	59.3	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	5.5	0	0	1	1	0	0	0	2	2	0	
72	80.8	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	4	4.5	0	0	1	0	0	0	0	1	1	0	
63	77.5	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7	0	0	1	0	0	0	0	1	1	0	
255	292.4	0	0	0	0	0	0	0	0	0	0	0	13	5	3	0	0	21	22.5	0	0	3	2	0	0	0	5	5	0	

60	69.3	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	0	1	0	0	0	0	1	1	0
64	76.2	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	5	5.5	0	0	1	1	0	0	0	2	2	0
82	94.4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
64	74.6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	2	1	0	0	0	3	3	0
270	314.5	0	0	0	0	0	0	0	0	0	0	0	8	4	3	0	0	15	16.5	0	0	4	2	0	0	0	6	6	0
77	85.2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	3	0	0	0	0	3	3	0
66	77.9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	3	0	0	0	0	3	3	0
105	114.8	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	1	1	0	0	0	2	2	0
87	102.8	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
335	380.7	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	8	1	0	0	0	9	9	0
95	108.4	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	2	1	0	0	0	3	3	0
89	97	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5	0	0	1	0	0	0	0	1	1	0
130	137.7	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	4	1	0	0	0	5	5	0
102	106.9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	3	2	0	0	0	5	5	0
416	450	0	0	0	0	0	0	0	0	0	0	0	7	6	0	0	0	13	13	0	0	10	4	0	0	0	14	14	0
104	110.1	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	0	8	8	0	0	3	2	0	0	0	5	5	0
89	91.2	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	3	2	0	0	0	5	5	0
112	119.4	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0
121	123.9	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0
426	444.6	0	0	0	0	0	0	0	0	0	0	0	10	11	0	0	0	21	21	0	0	10	4	0	0	0	14	14	0
108	114.9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
73	73.9	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	2	1	0	0	0	3	3	0
73	78.9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
71	77.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
325	344.9	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	5	1	0	0	0	6	6	0
53	54.8	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1	0	5	6.3	0	0	2	0	0	0	0	2	2	0
68	68	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0
56	57.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0
43	45.3	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	2	0	0	0	0	2	2	0
220	225.4	0	0	0	0	0	0	0	0	0	0	0	11	2	0	1	0	14	15.3	0	0	7	0	0	0	0	7	7	0
47	51.4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
55	58.6	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0
48	47.9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
32	32.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0
182	190.4	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	4	0	0	0	0	4	4	0
32	33.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
38	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	22.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
22	23.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
113	116.9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
18	19.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	20	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

16	16	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
13	14.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
67	69.6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	9.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	43.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3995	4494.9	0	0	0	0	0	0	0	0	0	0	0	144	56	12	3	0	215	224.9	0	0	76	16	1	1	0	94	95.8	0

		C => C									C => D									D => A									
TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
7	9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	15.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	3.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	12.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	41.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	22.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	7.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	26.9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	10.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9	13.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	29.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
13	17.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
12	18.7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
28	36.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
25	35.6	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	0	1	0	0	0	1	1	0
78	108.6	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	7	7	0	0	0	1	0	0	0	1	1	0
28	39.9	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
34	46.4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
45	51.7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
69	79.9	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	0	3	0	1	0	0	4	4.5	0
176	217.9	0	0	0	0	0	0	0	0	0	0	0	8	3	1	0	0	12	12.5	0	0	5	0	1	0	0	6	6.5	0
51	63.8	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0
49	64	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	2	0	0	0	0	2	2	0
43	52	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	3.3	0	0	1	0	0	0	0	1	1	0
61	73.6	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
204	253.4	0	0	0	0	0	0	0	0	0	0	0	8	5	0	1	0	14	15.3	0	0	6	0	0	0	0	6	6	0
43	52.1	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
45	53.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	1	1	0	0	0	2	2	0
42	46.3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	2	1	0	0	0	3	3	0
47	56.2	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0	1	0	0	0	0	1	1	0
177	208.1	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17	0	0	4	2	0	0	0	6	6	0
43	51	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	1	0	0	0	1	1	0
42	55.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
48	63.5	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	4	5	0	0	2	1	1	0	0	4	4.5	0
36	42.2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	3	0	1	0	0	4	4.5	0
169	211.9	0	0	0	0	0	0	0	0	0	0	0	9	1	2	0	0	12	13	0	0	6	2	2	0	0	10	11	0
42	54.1	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
50	64.6	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
50	57.7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0
49	58.5	0	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	7	8	0	0	0	1	0	0	0	1	1	0
191	234.9	0	0	0	0	0	0	0	0	0	0	0	13	2	2	0	0	17	18	0	0	3	1	0	0	0	4	4	0

50	61.6	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0
57	61.1	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	7	7	0	0	1	0	1	0	0	2	2.5	0
65	81.2	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	8	8	0	0	1	0	0	0	0	1	1	0
58	69.9	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	3	1	1	0	0	5	5.5	0
230	273.8	0	0	0	0	0	0	0	0	0	0	0	14	8	1	0	0	23	23.5	0	0	5	1	2	0	0	8	9	0
61	69.8	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	1	0	0	0	0	1	1	0
64	82	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0
63	67.9	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
69	81.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0
257	301.4	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13	0	0	4	1	0	0	0	5	5	0
70	83.2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	3	0	0	0	0	3	3	0
56	67.9	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5	0	0	3	0	0	0	0	3	3	0
85	93.8	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	0	4	0	0	0	0	4	4	0
62	77.3	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	5	6	0	0	1	0	0	0	0	1	1	0
273	322.2	0	0	0	0	0	0	0	0	0	0	0	12	4	3	0	0	19	20.5	0	0	11	0	0	0	0	11	11	0
79	87.2	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	1	0	0	0	0	1	1	0
97	109.6	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	5	6	0	0	3	0	0	0	0	3	3	0
90	99.1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
87	94.7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	3	1	1	0	0	5	5.5	0
353	390.6	0	0	0	0	0	0	0	0	0	0	0	16	2	2	0	0	20	21	0	0	8	1	1	0	0	10	10.5	0
106	110.3	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	2	0	0	0	0	2	2	0
95	99.9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3	3	0
75	76.5	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	6	3	0	0	0	9	9	0
114	124.6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	3	0	0	0	0	3	3	1
390	411.3	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13	0	0	14	3	0	0	0	17	17	1
114	121.7	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5	0	0	4	0	0	0	0	4	4	0
89	89.7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5	0
93	99.2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	4	0	0	0	0	4	4	0
109	111.4	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	1	0	0	0	1	1	0
405	422	0	0	0	0	0	0	0	0	0	0	0	11	1	1	0	0	13	13.5	0	0	8	1	1	0	0	10	10.5	0
86	91.4	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	1	1	0	0	0	2	2	1
97	101.9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	1	0	0	2	2.5	0
85	89.9	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5.3	0	0	0	1	0	0	0	1	1	0
65	66.4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
333	349.6	0	0	0	0	0	0	0	0	0	0	0	7	1	0	1	0	9	10.3	0	0	4	2	1	0	0	7	7.5	1
63	66.1	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	0	1	0	1	0	0	2	2.5	0
64	69.7	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0
53	54	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
45	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
225	235.8	0	0	0	0	0	0	0	0	0	0	0	12	1	1	0	0	14	14.5	0	0	5	0	1	0	0	6	6.5	0
40	42.3	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	4	3.4	0	0	1	0	0	0	0	1	1	0
50	52.3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	1	0	0	0	1	1	0

43	43.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
33	33	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
166	171.1	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	0	11	10.4	0	0	2	1	0	0	0	3	3	0
31	32	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
44	44.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
34	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	19.4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
129	129.9	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
28	28.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
26	24.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
32	30.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
18	18.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
104	102	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0
19	20.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	13	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
14	15.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	58.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
4042	4558.9	0	0	0	0	0	0	0	0	0	0	1	171	39	14	2	0	227	236	0	0	86	16	9	0	0	111	115.5	2

D => B								D => C									D => D								
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	4	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	10	5	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	3	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	16	6	0	1	0	23	24.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	3	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	1	2	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	24	6	2	0	0	32	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	1	2	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	2	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	13	6	2	0	0	21	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	2	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	4	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	1	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	20	9	1	1	0	31	32.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	3	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	11	6	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	2	1	1	0	8	9.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	0	2	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	19	5	3	1	0	28	30.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	2	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	23	5	1	0	0	29	29.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	25	3	2	0	0	30	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	5	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	302	87	14	4	0	407	419.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

D => B								D => C									D => D								
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	311	70	14	3	0	400	409.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 3
Location: L1140 (E/W)/M1 Southbound Off Slip (N)/M1 Southbound On Slip (S)
Date: Tue 10-Oct-2023

	A => A									A => B									A => C									
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
00:00	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	3	4.8	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	3	5.6	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	1	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	7	1	1	1	0	10	11.8	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	24	5	0	1	0	30	31.3	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	6	2	0	1	0	9	10.3	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	18	1	0	2	0	21	23.6	0	0	0	0	0	0	0	0	0	0

05:45	0	0	0	0	0	0	0	0	0	0	0	18	4	0	1	0	23	24.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	49	8	0	4	0	61	66.2	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	15	7	0	1	0	23	24.3	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	21	6	0	1	0	28	29.3	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	23	6	1	4	0	34	39.7	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	26	12	0	4	0	42	47.2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	85	31	1	10	0	127	140.5	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	21	11	2	5	0	39	46.5	0	0	1	0	0	0	1	1	0	
07:15	0	0	0	0	0	0	0	0	0	0	0	34	13	2	3	0	52	56.9	0	0	0	0	1	0	0	1	1.5	0
07:30	0	0	0	0	0	0	0	0	0	0	0	30	17	0	1	0	48	49.3	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	31	16	3	3	0	53	58.4	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	116	57	7	12	0	192	211.1	0	0	2	0	1	0	0	3	3.5	0
08:00	0	0	0	0	0	0	0	0	0	0	1	36	13	2	4	1	57	63.6	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	39	12	4	4	0	59	66.2	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	71	12	4	2	0	89	93.6	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	38	8	2	2	0	50	53.6	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	184	45	12	12	1	255	277	0	0	1	0	0	0	0	1	1	0
09:00	0	0	0	0	0	0	0	0	0	0	0	39	11	4	4	2	60	69.2	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	30	6	2	2	0	40	43.6	0	0	1	1	0	0	0	2	2	0
09:30	0	0	0	0	0	0	0	0	0	0	0	18	13	2	1	0	34	36.3	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	26	5	7	3	0	41	48.4	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	113	35	15	10	2	175	197.5	0	0	1	1	0	0	0	2	2	0
10:00	0	0	0	0	0	0	0	0	0	0	0	5	8	2	4	0	19	25.2	0	0	2	0	0	0	0	2	2	0
10:15	0	0	0	0	0	0	0	0	0	0	0	13	8	2	5	1	29	37.5	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	2	17	2	6	3	0	30	35.7	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	16	6	2	1	0	25	27.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	2	51	24	12	13	1	103	125.7	0	0	2	0	0	0	0	2	2	0
11:00	0	0	0	0	0	0	0	0	0	0	0	18	4	3	4	0	29	35.7	0	0	1	0	0	0	0	1	1	0
11:15	0	0	0	0	0	0	0	0	0	0	0	11	3	3	3	0	20	25.4	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	10	1	2	4	0	17	23.2	0	0	1	0	0	0	0	1	1	0
11:45	0	0	0	0	0	0	0	0	0	0	0	15	6	7	2	0	30	36.1	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	54	14	15	13	0	96	120.4	0	0	2	0	0	0	0	2	2	0
12:00	0	0	0	0	0	0	0	0	0	0	0	11	5	3	2	0	21	25.1	0	0	1	0	0	0	0	1	1	0
12:15	0	0	0	0	0	0	0	0	0	0	1	12	3	3	3	0	22	26.8	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	17	3	3	0	0	23	24.5	0	0	0	0	1	0	0	1	1.5	0
12:45	0	0	0	0	0	0	0	0	0	0	0	12	2	3	1	0	18	20.8	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	52	13	12	6	0	84	97.2	0	0	1	0	1	0	0	2	2.5	0
13:00	0	0	0	0	0	0	0	0	0	0	0	11	4	3	4	0	22	28.7	0	0	1	0	0	0	0	1	1	0
13:15	0	0	0	0	0	0	0	0	0	0	0	18	4	3	1	0	26	28.8	0	0	1	0	0	0	0	1	1	0
13:30	0	0	0	0	0	0	0	0	0	0	0	21	4	3	2	0	30	34.1	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	19	1	2	2	0	24	27.6	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	69	13	11	9	0	102	119.2	0	0	2	0	0	0	0	2	2	0

14:00	0	0	0	0	0	0	0	0	0	0	0	28	5	1	4	0	38	43.7	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	1	14	3	6	3	0	27	33.3	0	0	1	0	0	0	0	1	1	0
14:30	0	0	0	0	0	0	0	0	0	0	0	14	4	2	4	0	24	30.2	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	16	3	0	3	0	22	25.9	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	72	15	9	14	0	111	133.1	0	0	1	0	0	0	0	1	1	0
15:00	0	0	0	0	0	0	0	0	0	0	0	14	5	1	4	0	24	29.7	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	21	1	2	1	0	25	27.3	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	13	5	4	1	0	23	26.3	0	0	1	0	0	0	0	1	1	0
15:45	0	0	0	0	0	0	0	0	0	0	0	20	4	5	3	0	32	38.4	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	68	15	12	9	0	104	121.7	0	0	2	0	0	0	0	2	2	0
16:00	0	0	0	0	0	0	0	0	0	0	0	19	1	2	4	1	27	34.2	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	19	5	0	3	0	27	30.9	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	1	25	7	2	3	1	39	44.3	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	25	9	2	4	1	41	48.2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	88	22	6	14	3	134	157.6	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	26	3	1	1	0	31	32.8	0	0	1	0	0	0	0	1	1	0
17:15	0	0	0	0	0	0	0	0	0	0	0	30	1	0	2	0	33	35.6	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	33	0	0	3	0	36	39.9	0	0	1	1	0	0	0	2	2	0
17:45	0	0	0	0	0	0	0	0	0	0	0	17	1	1	6	0	25	33.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	106	5	2	12	0	125	141.6	0	0	2	1	0	0	0	3	3	0
18:00	0	0	0	0	0	0	0	0	0	0	0	23	1	1	2	0	27	30.1	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	12	0	2	3	0	17	21.9	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	11	2	0	1	0	14	15.3	0	0	2	0	0	0	0	2	2	0
18:45	0	0	0	0	0	0	0	0	0	0	0	12	3	2	2	0	19	22.6	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	58	6	5	8	0	77	89.9	0	0	2	0	0	0	0	2	2	0
19:00	0	0	0	0	0	0	0	0	0	0	0	16	3	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	17	2	1	0	0	20	20.5	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	13	1	0	4	0	18	23.2	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	11	1	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	57	7	1	5	0	70	77	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	16	0	0	2	0	18	20.6	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	8	2	2	2	0	14	17.6	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	9	0	0	2	0	11	13.6	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	11	0	1	1	0	13	14.8	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	44	2	3	7	0	56	66.6	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	4	1	1	1	0	7	8.8	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	1	0	12	13.3	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	11	1	0	3	0	15	18.9	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	4	1	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	30	3	1	6	0	40	48.3	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	1	6	0	0	1	0	8	8.7	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	9	1	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0	0

22:30	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	3	0	11	14.9	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	32	1	1	4	0	39	44.1	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	2	0	6	8.6	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	4	5.8	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	9	1	1	5	0	16	23	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	7	1380	326	128	178	7	2026	2324.2	0	0	18	2	2	0	0	22	23	0

IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 3
Location: L1140 (E/W)/M1 Southbound Off Slip (N)/M1 Southbound On Slip (S)
Date: Wed 11-Oct-2023

	A => A									A => B									A => C									
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**
00:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	4	5.8	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	5	2	1	2	0	10	13.1	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0

03:45	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	7	2	0	1	0	10	11.3	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	24	4	1	1	0	30	31.8	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	5	3	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	12	1	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	37	8	2	2	0	49	52.6	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	23	3	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	26	7	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	21	11	1	1	0	34	35.8	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	24	7	0	3	0	34	37.9	0	0	2	1	0	0	0	3	3	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	94	28	2	4	0	128	134.2	0	0	2	1	0	0	0	3	3	0
07:00	0	0	0	0	0	0	0	0	0	0	0	29	8	1	3	0	41	45.4	0	0	3	0	0	0	0	3	3	0
07:15	0	0	0	0	0	0	0	0	0	0	0	35	15	1	2	0	53	56.1	0	0	1	0	0	0	0	1	1	0
07:30	0	0	0	0	0	0	0	0	0	0	0	55	12	4	9	0	80	93.7	0	0	8	0	0	0	1	9	10	0
07:45	0	0	0	0	0	0	0	0	0	0	0	56	22	5	2	0	85	90.1	0	0	16	5	0	0	2	23	25	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	175	57	11	16	0	259	285.3	0	0	28	5	0	0	3	36	39	0
08:00	0	0	0	0	0	0	0	0	0	0	0	51	14	2	5	0	72	79.5	0	0	0	1	0	0	0	1	1	0
08:15	0	0	0	0	0	0	0	0	0	0	0	71	17	7	1	1	97	102.8	0	0	12	3	0	0	0	15	15	0
08:30	0	0	0	0	0	0	0	0	0	0	0	75	14	2	2	1	94	98.6	0	0	3	0	0	0	0	3	3	0
08:45	0	0	0	0	0	0	0	0	0	0	0	53	16	2	0	0	71	72	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	250	61	13	8	2	334	352.9	0	0	15	4	0	0	0	19	19	0
09:00	0	0	0	0	0	0	0	0	0	0	0	47	10	3	2	1	63	68.1	0	0	1	0	0	0	0	1	1	0
09:15	0	0	0	0	0	0	0	0	0	0	0	27	10	7	1	1	46	51.8	0	0	0	0	1	0	0	1	1.5	0
09:30	0	0	0	0	0	0	0	0	0	0	0	27	4	5	2	0	38	43.1	0	0	2	0	0	0	0	2	2	0
09:45	0	0	0	0	0	0	0	0	0	0	0	17	11	4	2	0	34	38.6	0	0	0	0	1	0	0	1	1.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	118	35	19	7	2	181	201.6	0	0	3	0	2	0	0	5	6	0
10:00	0	0	0	0	0	0	0	0	0	0	0	16	8	2	2	0	28	31.6	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	10	5	2	0	0	17	18	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	13	3	3	3	0	22	27.4	0	0	1	0	0	0	0	1	1	0
10:45	0	0	0	0	0	0	0	0	0	0	0	15	3	3	4	0	25	31.7	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	54	19	10	9	0	92	108.7	0	0	2	0	0	0	0	2	2	0
11:00	0	0	0	0	0	0	0	0	0	0	0	15	7	0	4	0	26	31.2	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	12	9	2	1	0	24	26.3	0	0	2	0	0	1	0	3	4.3	0
11:30	0	0	0	0	0	0	0	0	0	0	0	9	8	6	4	0	27	35.2	0	0	2	0	0	0	0	2	2	0
11:45	0	0	0	0	0	0	0	0	0	0	0	11	5	2	2	0	20	23.6	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	47	29	10	11	0	97	116.3	0	0	4	0	0	1	0	5	6.3	0

12:00	0	0	0	0	0	0	0	0	0	0	0	14	4	3	4	0	25	31.7	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	16	5	5	3	0	29	35.4	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	9	5	3	3	0	20	25.4	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	17	4	0	1	0	22	23.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	56	18	11	11	0	96	115.8	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	13	5	3	1	0	22	24.8	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	16	4	2	3	0	25	29.9	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	17	4	1	7	1	30	40.6	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	17	4	1	1	1	24	26.8	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	63	17	7	12	2	101	122.1	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	19	4	2	4	1	30	37.2	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	17	0	2	2	0	21	24.6	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	20	6	3	4	0	33	39.7	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	22	3	5	4	0	34	41.7	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	78	13	12	14	1	118	143.2	0	0	1	0	0	0	0	1	1	0
15:00	0	0	0	0	0	0	0	0	0	0	0	19	2	3	4	0	28	34.7	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	14	3	1	3	0	21	25.4	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	11	3	2	3	0	19	23.9	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	22	3	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	66	11	6	10	0	93	109	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	14	1	3	3	0	21	26.4	0	0	1	0	0	0	0	1	1	0
16:15	0	0	0	0	0	0	0	0	0	0	0	16	3	1	2	0	22	25.1	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	21	4	3	1	0	29	31.8	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	24	5	1	3	0	33	37.4	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	75	13	8	9	0	105	120.7	0	0	1	0	0	0	0	1	1	0
17:00	0	0	0	0	0	0	0	0	0	0	0	27	4	1	2	0	34	37.1	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	22	3	1	0	0	26	26.5	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	27	4	0	4	0	35	40.2	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	22	4	0	1	0	27	28.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	98	15	2	7	0	122	132.1	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	18	4	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	21	5	2	3	0	31	35.9	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	1	18	1	0	2	0	22	24	0	0	1	0	0	0	0	1	1	0
18:45	0	0	0	0	0	0	0	0	0	0	0	19	5	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	76	15	2	5	0	99	105.9	0	0	1	0	0	0	0	1	1	0
19:00	0	0	0	0	0	0	0	0	0	0	0	17	2	1	1	0	21	22.8	0	0	1	0	0	0	0	1	1	0
19:15	0	0	0	0	0	0	0	0	0	0	0	10	1	0	2	0	13	15.6	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	14	0	1	2	0	17	20.1	0	0	1	0	0	0	0	1	1	0
19:45	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	53	3	2	5	0	63	70.5	0	0	3	0	0	0	0	3	3	0
20:00	0	0	0	0	0	0	0	0	0	0	0	14	0	0	3	0	17	20.9	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	16	1	1	3	0	21	25.4	0	0	0	0	0	0	0	0	0	0

20:30	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	0	1	0	0	0	1	1	0
20:45	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	45	1	2	6	0	54	62.8	0	0	0	1	0	0	0	1	1	0
21:00	0	0	0	0	0	0	0	0	0	0	0	9	0	1	1	0	11	12.8	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	14	0	0	4	0	18	23.2	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	34	2	1	5	0	42	49	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	4	0	1	1	0	6	7.8	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	5	1	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	2	0	9	11.6	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	18	1	1	4	0	24	29.7	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2	0	6	8.6	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	3	5.6	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	2	0	6	0	14	21.8	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	1	1490	358	124	154	7	2134	2402.6	0	0	60	11	2	1	3	77	82.3	0

A => D								B => A									B => B									B => C			
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
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0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
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1	92	20	4	3	0	120	125.3	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	15	2828	455

A => D								B => A									B => B									B => C			
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV
0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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					B => D									C => A									C => B						
OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
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1	0	0	4	4.5	0	0	0	0	0	2	0	2	4.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	9	9.5	0	0	4	0	0	6	0	10	17.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	2	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	8	7.4	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	15	14.9	0	0	3	2	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	9	9.5	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	19	22.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	0	13	18.2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	13	13	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	6	0	54	63.3	0	0	4	1	1	1	0	7	8.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	17	20.1	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	33	35.6	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	32	33.3	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3	4	0	44	50.1	0	0	3	1	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	9	0	126	139.1	0	0	8	1	2	2	0	13	16.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	0	60	62.8	0	0	3	1	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	80	82.3	0	0	6	1	2	2	0	11	14.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	8	1	110	122.9	0	0	8	1	0	2	0	11	13.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	100	103.1	0	0	10	2	0	3	0	15	18.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	12	1	350	371.1	0	0	27	5	2	8	0	42	53.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	4	1	96	103.2	0	0	15	2	0	2	0	19	21.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	2	98	103.1	0	0	16	6	2	3	0	27	31.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	0	85	88.8	0	0	28	4	4	7	0	43	54.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	1	106	109	0	0	32	7	2	4	0	45	51.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	11	4	385	404.1	0	0	91	19	8	16	0	134	158.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	2	89	93.4	1	0	38	6	2	4	1	52	58.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	0	93	101	0	0	33	5	1	5	0	44	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	7	1	82	94	0	0	34	5	2	3	0	44	48.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	11	0	85	99.8	0	0	23	7	3	3	0	36	41.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	25	3	349	388.2	1	0	128	23	8	15	1	176	199.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	1	68	75.6	0	0	22	3	3	5	0	33	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	4	1	75	81.7	0	0	19	8	4	8	0	39	51.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4	1	69	76.7	0	0	15	3	5	5	0	28	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	64	67.1	0	0	14	5	2	1	0	22	24.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	14	3	276	301.1	0	0	70	19	14	19	0	122	153.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	0	50	57.5	0	0	11	5	5	4	0	25	32.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	2	45	50.9	0	0	18	2	4	6	0	30	39.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	8	0	60	72.9	0	0	17	4	2	0	0	23	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	11	0	48	63.8	0	0	11	1	4	2	0	18	22.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	27	2	203	245.1	0	0	57	12	15	12	0	96	119.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	6	0	59	69.3	1	0	12	5	4	3	0	25	30.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	0	57	64.5	0	0	17	4	4	1	0	26	29.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	0	43	50.2	0	0	9	6	3	2	0	20	24.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	0	49	54.4	0	0	14	4	1	2	0	21	24.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	18	0	208	238.4	1	0	52	19	12	8	0	92	107.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	1	48	52	0	0	15	4	2	2	0	23	26.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	6	2	59	71.3	0	0	14	9	2	4	1	30	37.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6	0	72	79.7	0	0	20	6	2	5	0	33	40.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	6	0	46	54.8	0	1	20	1	1	5	0	28	34.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	20	3	225	257.8	0	1	69	20	7	16	1	114	138.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	0	38	46	0	0	22	7	5	1	0	35	38.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	10	0	61	74.5	0	0	15	8	2	4	0	29	35.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	3	0	58	64.4	0	0	16	7	2	6	0	31	39.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	0	32	37.9	0	0	24	12	6	3	0	45	51.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	23	0	189	222.8	0	0	77	34	15	14	0	140	165.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3	4	0	46	52.7	0	0	13	6	4	4	0	27	34.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6	0	41	49.3	0	0	23	10	2	1	0	36	38.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	0	48	57.1	0	0	27	9	2	4	0	42	48.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	9	0	45	57.7	0	0	36	8	2	2	0	48	51.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	26	0	180	216.8	0	0	99	33	10	11	0	153	172.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	9	0	51	63.2	0	0	28	10	1	2	1	42	46.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	0	47	52.2	0	0	36	3	4	2	1	46	51.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	4	0	57	63.2	0	0	25	9	6	5	0	45	54.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	41	42.3	0	0	37	11	2	6	2	58	68.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	18	0	196	220.9	0	0	126	33	13	15	4	191	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	0	64	72	0	0	64	20	1	4	0	89	94.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	3	0	53	57.3	0	0	41	13	3	5	2	64	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	53	55.6	0	0	49	33	3	6	0	91	100.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	50	52.3	0	1	37	18	4	1	0	61	63.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	11	0	220	237.2	0	1	191	84	11	16	2	305	332.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	58	59.3	0	1	72	19	3	2	1	98	102.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	62	63.8	0	0	53	14	1	2	0	70	73.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	1	55	56.7	0	0	50	12	1	1	0	64	65.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	1	40	43.6	0	0	40	7	1	3	0	51	55.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	5	2	215	223.4	0	1	215	52	6	8	1	283	296.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	2	44	51.2	0	0	40	5	1	1	0	47	48.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	30	31.5	0	0	32	5	3	4	0	44	50.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	30	30	0	1	22	5	0	1	0	29	29.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	31	32.8	0	0	15	2	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	3	135	145.5	0	1	109	17	4	7	0	138	148.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	35	35.4	0	0	27	6	0	2	0	35	37.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	1	29	32.3	0	0	23	4	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	30	30.5	0	0	17	4	1	3	0	25	29.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	33	34.3	0	0	15	5	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	2	127	132.5	0	0	82	19	2	5	0	108	115.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	20	20.7	0	0	15	2	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	17	18.3	0	0	20	0	0	1	0	21	22.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	18	18	0	0	8	1	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	15	16.3	0	0	15	0	0	3	0	18	21.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	0	70	73.3	0	0	58	3	1	5	0	67	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	1	17	19.3	0	0	8	2	0	2	0	12	14.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	17	17	0	0	11	3	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	10	10.5	0	0	11	2	0	1	0	14	15.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	16	16	0	0	12	2	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	60	62.8	0	0	42	9	0	3	0	54	57.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	12	12	0	0	10	0	0	1	0	11	12.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	7	7	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0	0	0	5	5	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	11	11.5	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	35	35.5	0	0	26	3	1	1	0	31	32.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	4	5.3	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	10	11.3	0	0	4	0	0	2	0	6	8.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	9	9	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	4	4.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	27	30.1	0	0	9	0	0	3	0	12	15.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	242	24	3676	4061.6	2	4	1565	409	132	197	9	2318	2645.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					B => D									C => A									C => B						
OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
0	1	0	1	2.3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	2	0	0	2	0	4	6.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	2	0	0	1	0	0	2	0	3	5.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	7	8.3	0	0	6	0	0	4	0	10	15.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	8	9.3	0	0	2	0	0	3	0	5	8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	3	3.5	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	16	17.8	0	0	8	0	0	5	0	13	19.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	2	3.8	0	0	6	0	0	3	0	9	12.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	1.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	2	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	5	7.3	0	0	10	1	0	4	0	15	20.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	6	6.5	0	0	0	1	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	10	10.5	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	7	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0	0	0	7	7	0	0	0	0	0	2	0	2	4.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	30	32.3	0	0	1	1	2	2	0	6	9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	8	10.6	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	15	16.2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	0	43	47.8	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	0	20	24.4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	21	24.6	0	0	4	0	0	2	0	6	8.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	45	45.7	0	0	1	0	0	2	0	3	5.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	0	43	47.1	0	0	7	2	2	1	0	12	14.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	8	0	129	141.8	0	0	16	2	2	5	0	25	32.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	61	61	0	0	3	3	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	0	81	84.9	0	0	8	1	2	3	0	14	18.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	1	114	122.5	0	0	11	2	1	1	0	15	16.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	4	0	93	98.7	0	0	18	3	0	3	0	24	27.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12	1	349	367.1	0	0	40	9	3	8	0	60	71.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	2	96	100.6	0	0	15	4	2	7	0	28	38.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4	1	81	88.7	0	0	19	4	0	3	0	26	29.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	87	90.1	0	0	19	4	2	3	0	28	32.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	1	81	87.2	0	0	39	11	2	5	0	57	64.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	12	4	345	366.6	0	0	92	23	6	18	0	139	165.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2	2	103	109.6	0	0	31	9	2	3	1	46	51.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	8	1	81	93.3	0	0	39	3	0	6	0	48	55.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	1	75	80.4	0	0	28	5	2	5	0	40	47.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	5	1	77	86.5	0	0	29	4	0	3	0	36	39.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	18	5	336	369.8	0	0	127	21	4	17	1	170	195.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	10	0	91	106.5	0	0	19	6	1	6	0	32	40.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	1	77	86	0	0	18	3	1	4	0	26	31.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	2	57	65.5	0	0	22	6	1	4	0	33	38.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4	0	41	47.7	0	0	16	8	3	3	0	30	35.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	24	3	266	305.7	0	0	75	23	6	17	0	121	146.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	5	1	68	76.9	0	0	17	3	4	2	0	26	30.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	1	48	51.8	2	0	20	3	5	2	1	33	37.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	4	0	53	59.2	0	0	13	3	3	5	0	24	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	4	0	49	54.7	0	0	12	3	5	2	0	22	27.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	14	2	218	242.6	2	0	62	12	17	11	1	105	127.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	15	0	49	69	0	0	21	5	0	1	0	27	28.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	0	50	54.1	0	0	8	5	1	4	0	18	23.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6	0	58	68.8	0	0	20	4	2	4	0	30	36.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	6	1	49	58.8	0	0	18	2	2	7	0	29	39.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	29	1	206	250.7	0	0	67	16	5	16	0	104	127.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5	3	1	56	63.4	0	0	20	6	2	1	0	29	31.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	0	60	68	0	0	22	11	4	3	0	40	45.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	3	0	49	55.4	0	0	23	6	3	4	0	36	42.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	8	0	38	49.4	0	0	24	7	3	1	0	35	37.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	19	1	203	236.2	0	0	89	30	12	9	0	140	157.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	11	0	64	79.8	0	0	25	8	1	3	0	37	41.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	8	0	42	52.9	0	0	17	3	1	4	0	25	30.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	0	53	61	0	0	20	8	0	2	0	30	32.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	0	46	53.2	0	0	16	10	5	1	0	32	35.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	30	0	205	246.9	0	0	78	29	7	10	0	124	140.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	3	1	53	58.9	0	0	24	7	5	5	0	41	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	7	0	50	59.5	0	0	20	6	2	1	1	30	33.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	7	0	58	68.6	0	0	27	5	2	4	1	39	46.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	3	0	40	44.9	0	0	20	6	1	2	0	29	32.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	20	1	201	231.9	0	0	91	24	10	12	2	139	161.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	7	1	69	80.1	0	0	28	4	1	2	0	35	38.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	3	0	52	56.9	0	0	30	10	6	4	0	50	58.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	50	53.1	0	0	28	13	1	2	0	44	47.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	1	64	66	0	0	31	17	4	6	0	58	67.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	12	2	235	256.1	0	0	117	44	12	14	0	187	211.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	60	62.6	0	0	43	13	3	4	0	63	69.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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1	1	1	50	52.8	0	0	40	19	0	2	0	61	63.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	2	202	209.4	0	0	168	71	9	12	0	260	280.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	56	56.7	0	0	69	17	0	1	0	87	88.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	2	51	53.7	0	1	51	22	2	1	0	77	78.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	42	43.4	1	0	46	6	2	3	0	58	62.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	43	44.5	0	0	40	11	1	6	0	58	66.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	4	3	192	198.3	1	1	206	56	5	11	0	280	295.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	40	41	0	0	31	11	1	2	0	45	48.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	49	50	0	1	31	5	2	2	0	41	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	29	30.3	0	0	26	4	0	4	0	34	39.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	35	35	0	0	25	3	1	1	0	30	31.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	2	153	156.3	0	1	113	23	4	9	0	150	163.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	30	32	0	1	20	8	2	0	0	31	31.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	38	40	0	0	13	7	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	37	37	0	0	18	5	0	1	0	24	25.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	27	27.5	0	0	18	3	1	1	0	23	24.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	4	132	136.5	0	1	69	23	3	2	0	98	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	20	20	0	0	8	4	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	1	0	3	4.3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	0	19	22.9	0	0	14	3	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	217	32	3669	4033.1	4	3	1575	433	109	191	7	2322	2626.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		C => C									C => D									D => A								
TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		C => C									C => D									D => A									
TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

D => B								D => C									D => D								
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	1	0	0	0	7	7	0	0	0	0	1	1	0	2	3.8	0	0	0	0	0	0	0	0	0
0	9	1	0	1	0	11	12.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	27	4	0	1	0	32	33.3	0	0	0	0	1	1	0	2	3.8	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	2	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	2	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	2	0	0	0	3	3	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0
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0	12	2	0	0	0	14	14	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
0	1	1	1	0	0	3	3.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
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0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	4	2	0	0	9	10	0	0	0	1	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0
0	8	7	3	0	0	18	19.5	0	0	1	1	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
0	3	3	0	1	0	7	8.3	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	2	0	0	1	4	5	0	0	0	0	1	1	0	2	3.8	0	0	0	0	0	0	0	0	0
0	6	0	1	1	0	8	9.8	0	0	1	1	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0
0	13	5	1	3	1	23	28.4	0	0	2	2	2	1	0	7	9.3	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	1	0	1	1	0	3	4.8	0	0	0	0	0	0	0	0	0
0	3	1	1	0	0	5	5.5	0	0	3	1	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0
0	3	1	0	0	0	4	4	0	0	2	0	0	2	0	4	6.6	0	0	0	0	0	0	0	0	0

0	5	0	0	0	1	6	7	0	0	1	1	0	1	0	3	4.3	0	0	0	0	0	0	0	0
0	13	2	1	0	1	17	18.5	0	0	7	2	1	5	0	15	22	0	0	0	0	0	0	0	0
0	8	0	0	2	0	10	12.6	0	0	2	1	1	3	0	7	11.4	0	0	0	0	0	0	0	0
0	9	1	1	0	1	12	13.5	0	0	3	0	1	2	0	6	9.1	0	0	1	0	0	0	1	1
0	16	7	1	1	2	27	30.8	0	0	2	0	0	2	0	4	6.6	0	0	0	0	0	0	0	0
0	10	10	0	2	2	24	28.6	0	0	1	2	1	2	0	6	9.1	0	0	0	0	0	0	0	0
0	43	18	2	5	5	73	85.5	0	0	8	3	3	9	0	23	36.2	0	0	1	0	0	0	1	1
0	11	8	2	2	0	23	26.6	0	0	3	0	1	3	0	7	11.4	0	0	1	0	0	0	1	1
1	22	5	0	3	1	32	36.3	0	0	2	0	1	3	0	6	10.4	0	0	0	0	0	0	0	0
0	29	7	0	2	1	39	42.6	0	0	3	0	1	1	0	5	6.8	0	0	0	0	0	0	0	0
0	63	11	2	8	0	84	95.4	0	0	2	1	0	4	0	7	12.2	0	0	0	0	0	0	0	0
1	125	31	4	15	2	178	200.9	0	0	10	1	3	11	0	25	40.8	0	0	1	0	0	0	1	1
0	47	6	0	9	0	62	73.7	0	0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0
0	40	7	5	6	0	58	68.3	0	0	6	0	0	3	0	9	12.9	0	0	0	0	0	0	0	0
0	44	6	5	2	0	57	62.1	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0
0	44	8	5	6	0	63	73.3	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0
0	175	27	15	23	0	240	277.4	0	0	16	4	1	3	0	24	28.4	0	0	0	0	0	0	0	0
0	30	8	3	3	1	45	51.4	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0
0	24	9	3	3	3	42	50.4	0	0	0	1	2	1	0	4	6.3	0	0	0	0	0	0	0	0
0	30	8	3	4	0	45	51.7	0	0	2	3	2	0	0	7	8	0	0	0	0	0	0	0	0
1	28	9	2	3	0	43	47.3	0	0	4	1	1	2	0	8	11.1	0	0	0	0	0	0	0	0
1	112	34	11	13	4	175	200.8	0	0	8	5	5	4	0	22	29.7	0	0	0	0	0	0	0	0
0	23	11	4	7	1	46	58.1	0	0	3	0	2	1	0	6	8.3	0	0	0	0	0	0	0	0
0	26	7	1	7	0	41	50.6	0	0	1	3	0	2	0	6	8.6	0	0	0	0	0	0	0	0
0	30	10	1	9	0	50	62.2	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0
0	24	5	6	5	0	40	49.5	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0
0	103	33	12	28	1	177	220.4	0	0	13	4	2	4	0	23	29.2	0	0	0	0	0	0	0	0
0	28	5	4	5	0	42	50.5	0	0	3	1	3	0	0	7	8.5	0	0	0	0	0	0	0	0
0	21	14	2	3	0	40	44.9	0	0	2	1	1	1	0	5	6.8	0	0	0	0	0	0	0	0
1	35	7	2	1	0	46	47.7	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	1	1
0	28	5	2	7	0	42	52.1	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
1	112	31	10	16	0	170	195.2	0	0	8	3	4	1	0	16	19.3	0	0	1	0	0	0	1	1
0	37	11	4	9	0	61	74.7	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0
0	32	18	2	7	0	59	69.1	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0
0	32	4	1	3	1	41	46.4	0	0	2	1	2	0	0	5	6	0	0	0	0	0	0	0	0
0	45	7	1	11	0	64	78.8	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0
0	146	40	8	30	1	225	269	0	0	10	5	3	0	0	18	19.5	0	0	0	0	0	0	0	0
0	46	11	3	6	0	66	75.3	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0
1	40	12	2	2	0	57	60	0	0	3	3	0	1	0	7	8.3	0	0	0	0	0	0	0	0
0	52	8	2	4	0	66	72.2	0	0	3	1	1	1	0	6	7.8	0	0	0	0	0	0	0	0
0	49	9	3	11	0	72	87.8	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0
1	187	40	10	23	0	261	295.3	0	0	16	4	2	2	0	24	27.6	0	0	0	0	0	0	0	0

0	47	6	3	3	0	59	64.4	0	0	1	1	0	2	0	4	6.6	0	0	0	0	0	0	0	0	0
0	47	15	1	9	0	72	84.2	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
0	60	13	4	8	0	85	97.4	0	0	1	2	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0
0	46	10	3	6	0	65	74.3	0	0	6	1	1	1	0	9	10.8	0	0	0	0	0	0	0	0	0
0	200	44	11	26	0	281	320.3	0	0	10	4	2	4	0	20	26.2	0	0	0	0	0	0	0	0	0
0	59	9	4	4	1	77	85.2	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	47	15	2	6	0	70	78.8	0	0	1	1	1	2	0	5	8.1	0	0	0	0	0	0	0	0	0
0	77	16	3	6	0	102	111.3	0	0	3	3	2	0	0	8	9	0	0	0	0	0	0	0	0	0
0	60	15	2	11	0	88	103.3	0	0	8	2	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0
0	243	55	11	27	1	337	378.6	0	0	15	8	4	2	0	29	33.6	0	0	0	0	0	0	0	0	0
0	74	12	3	5	1	95	104	0	0	3	1	1	3	0	8	12.4	0	0	0	0	0	0	0	0	0
0	64	15	1	2	0	82	85.1	0	0	1	0	2	2	0	5	8.6	0	0	0	0	0	0	0	0	0
0	91	30	3	3	0	127	132.4	0	0	4	2	2	2	0	10	13.6	0	0	0	0	0	0	0	0	0
0	90	14	0	1	0	105	106.3	0	0	3	1	2	2	0	8	11.6	0	0	0	0	0	0	0	0	0
0	319	71	7	11	1	409	427.8	0	0	11	4	7	9	0	31	46.2	0	0	0	0	0	0	0	0	0
1	96	13	0	3	1	114	118.3	0	0	4	1	1	1	0	7	8.8	0	0	0	0	0	0	0	0	0
1	75	10	1	0	1	88	88.9	0	0	4	2	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0
0	96	14	2	2	1	115	119.6	0	0	5	2	2	1	0	10	12.3	0	0	0	0	0	0	0	0	0
2	107	16	1	1	1	128	129.6	0	0	6	0	1	1	0	8	9.8	0	0	0	0	0	0	0	0	0
4	374	53	4	6	4	445	456.4	0	0	19	5	4	4	0	32	39.2	0	0	0	0	0	0	0	0	0
0	90	9	3	2	1	105	110.1	0	0	5	0	1	1	0	7	8.8	0	0	0	0	0	0	0	0	0
1	66	8	1	0	1	77	77.9	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	65	6	0	1	1	73	75.3	0	0	2	0	2	2	0	6	9.6	0	0	0	0	0	0	0	0	0
0	55	7	0	0	0	62	62	0	0	4	0	2	4	0	10	16.2	0	0	0	0	0	0	0	0	0
1	276	30	4	3	3	317	325.3	0	0	16	1	5	7	0	29	40.6	0	0	0	0	0	0	0	0	0
0	46	7	1	0	0	54	54.5	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
0	62	6	1	1	0	70	71.8	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	52	2	0	1	0	55	56.3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	44	3	2	1	0	50	52.3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	204	18	4	3	0	229	234.9	0	0	10	1	0	1	0	12	13.3	0	0	0	0	0	0	0	0	0
0	39	5	0	0	0	44	44	0	0	0	1	1	2	0	4	7.1	0	0	0	0	0	0	0	0	0
0	50	3	1	1	0	55	56.8	0	0	1	0	1	2	0	4	7.1	0	0	0	0	0	0	0	0	0
1	41	2	1	0	0	45	44.9	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
0	30	1	0	0	0	31	31	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
1	160	11	2	1	0	175	176.7	0	0	10	2	3	4	0	19	25.7	0	0	0	0	0	0	0	0	0
0	26	1	0	1	0	28	29.3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	38	2	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	17	1	0	0	0	18	18	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
0	24	1	0	0	0	25	25	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0
0	105	5	0	1	0	111	112.3	0	0	6	0	0	2	0	8	10.6	0	0	0	0	0	0	0	0	0
0	15	0	0	0	0	15	15	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0
0	17	2	0	0	0	19	19	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0

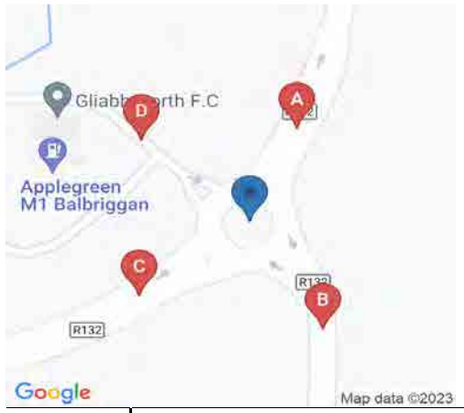
0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	13	0	0	0	0	13	13	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0
0	60	3	0	0	0	63	63	0	0	3	0	0	2	0	5	7.6	0	0	0	0	0	0	0	0
0	8	0	0	0	0	8	8	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	17	0	0	0	0	17	17	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
1	9	1	0	0	0	11	10.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	39	2	0	0	0	42	41.4	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0
11	3064	568	121	236	24	4024	4408.7	0	0	203	59	52	78	0	392	519.4	0	0	3	0	0	0	0	3	3

D => B								D => C									D => D								
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	4	1	0	1	0	6	7.3	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0
0	8	0	0	1	0	9	10.3	0	0	0	1	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	6.1	0	0	0	0	0	0	0	0	0
0	6	0	0	2	0	8	10.6	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0
0	18	1	0	4	0	23	28.2	0	0	0	1	2	4	0	7	13.2	0	0	0	0	0	0	0	0	0
0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	2	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	1	0	0	0	5	5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	18	2	1	0	0	21	21.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	1	0	3	4.3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	1	2	0	1	0	4	5.3	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0

0	2	4	2	0	0	8	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	10	2	2	0	20	23.6	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0
0	5	1	0	0	0	6	6	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0
1	1	0	0	0	0	2	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	2	0	1	1	6	8.3	0	0	0	1	0	1	0	2	3.3	0	0	0	0	0	0	0	0
0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	14	3	0	1	1	20	21.7	0	0	2	3	0	1	0	6	7.3	0	0	0	0	0	0	0	0
0	2	1	0	0	0	3	3	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0
0	3	1	1	0	0	5	5.5	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	1	1	1	0	3	4.8	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	3	0	0	3	0	6	9.9	0	0	3	1	2	0	0	6	7	0	0	0	0	0	0	0	0
0	8	3	2	4	0	17	23.2	0	0	6	2	2	1	0	11	13.3	0	0	0	0	0	0	0	0
0	4	3	1	1	2	11	14.8	0	0	3	0	2	0	0	5	6	0	0	0	0	0	0	0	0
0	4	2	0	3	1	10	14.9	0	0	3	0	1	1	0	5	6.8	0	0	0	0	0	0	0	0
0	12	7	0	1	2	22	25.3	0	0	1	2	0	4	0	7	12.2	0	0	0	0	0	0	0	0
0	9	8	3	5	0	25	33	0	0	2	1	0	2	0	5	7.6	0	0	1	0	0	0	0	1	1
0	29	20	4	10	5	68	88	0	0	9	3	3	7	0	22	32.6	0	0	1	0	0	0	0	1	1
0	18	3	0	4	1	26	32.2	0	0	5	0	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0
0	26	5	1	2	1	35	39.1	0	0	2	0	1	6	0	9	17.3	0	0	1	0	0	0	0	1	1
0	34	9	1	3	1	48	53.4	0	0	0	0	0	2	0	2	4.6	0	0	0	0	0	0	0	0	0
0	61	9	1	4	0	75	80.7	0	0	4	0	1	4	0	9	14.7	0	0	0	0	0	0	0	0	0
0	139	26	3	13	3	184	205.4	0	0	11	0	3	15	0	29	50	0	0	1	0	0	0	0	1	1
2	38	7	2	7	0	56	64.9	0	0	3	1	0	3	0	7	10.9	0	0	0	0	0	0	0	0	0
0	37	4	2	8	1	52	64.4	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
0	39	3	5	4	0	51	58.7	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0
1	37	11	2	11	0	62	76.7	0	0	2	2	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0
3	151	25	11	30	1	221	264.7	0	0	10	3	1	5	0	19	26	0	0	0	0	0	0	0	0	0
0	35	5	0	7	0	47	56.1	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	29	13	2	4	1	49	56.2	0	0	0	0	1	1	0	2	3.8	0	0	0	0	0	0	0	0	0
0	31	9	3	1	2	46	50.8	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0
0	31	6	6	4	1	48	57.2	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	126	33	11	16	4	190	220.3	0	0	9	2	2	1	0	14	16.3	0	0	0	0	0	0	0	0	0
0	27	12	2	4	0	45	51.2	0	0	0	1	1	1	0	3	4.8	0	0	0	0	0	0	0	0	0
0	26	5	4	8	0	43	55.4	0	0	4	2	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0
0	22	6	3	9	0	40	53.2	0	0	6	2	2	1	0	11	13.3	0	0	0	0	0	0	0	0	0
0	25	8	0	4	0	37	42.2	0	0	4	1	2	0	0	7	8	0	0	0	0	0	0	0	0	0
0	100	31	9	25	0	165	202	0	0	14	6	5	3	0	28	34.4	0	0	0	0	0	0	0	0	0
0	28	5	5	7	0	45	56.6	0	0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0
1	26	8	6	5	0	46	54.9	0	0	3	1	0	3	1	8	12.9	0	0	0	0	0	0	0	0	0
0	27	10	5	4	0	46	53.7	0	0	5	1	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0
0	31	6	6	5	0	48	57.5	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
1	112	29	22	21	0	185	222.7	0	0	19	2	1	4	1	27	33.7	0	0	0	0	0	0	0	0	0

0	29	12	4	4	0	49	56.2	0	0	8	0	2	3	0	13	17.9	0	0	0	0	0	0	0	0
0	44	10	3	1	0	58	60.8	0	0	2	2	1	1	0	6	7.8	0	0	0	0	0	0	0	0
0	35	10	6	9	1	61	76.7	0	0	4	0	2	0	0	6	7	0	0	0	0	0	0	0	0
0	42	9	3	8	0	62	73.9	0	0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0
0	150	41	16	22	1	230	267.6	0	0	18	4	5	4	0	31	38.7	0	0	0	0	0	0	0	0
0	47	8	3	6	0	64	73.3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0
0	40	9	4	9	2	64	79.7	0	0	1	1	1	1	0	4	5.8	0	0	0	0	0	0	0	0
0	50	9	2	1	0	62	64.3	0	0	4	1	1	2	0	8	11.1	0	0	0	0	0	0	0	0
0	54	11	2	8	0	75	86.4	0	0	3	1	0	1	0	5	6.3	0	0	0	0	0	0	0	0
0	191	37	11	24	2	265	303.7	0	0	12	3	2	4	0	21	27.2	0	0	0	0	0	0	0	0
0	53	7	1	6	1	68	77.3	0	0	5	0	1	2	0	8	11.1	0	0	0	0	0	0	0	0
0	38	11	1	8	1	59	70.9	0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0
0	66	9	0	5	1	81	88.5	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0
0	45	5	2	10	0	62	76	0	0	7	2	0	1	0	10	11.3	0	0	0	0	0	0	0	0
0	202	32	4	29	3	270	312.7	0	0	21	2	1	5	0	29	36	0	0	0	0	0	0	0	0
0	64	9	4	4	1	82	90.2	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0
0	75	12	5	7	1	100	112.6	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0
0	70	16	0	5	0	91	97.5	0	0	3	3	1	1	0	8	9.8	0	0	0	0	0	0	0	0
0	70	7	2	5	0	84	91.5	0	0	2	3	3	0	0	8	9.5	0	0	0	0	0	0	0	0
0	279	44	11	21	2	357	391.8	0	0	16	7	5	1	0	29	32.8	0	0	0	0	0	0	0	0
0	81	19	3	1	1	105	108.8	0	0	5	2	1	0	0	8	8.5	0	0	0	0	0	0	0	0
0	89	10	2	3	0	104	108.9	0	0	4	1	0	0	0	5	5	0	0	1	0	0	0	0	1	1
0	59	12	3	0	0	74	75.5	0	0	4	3	1	0	0	8	8.5	0	0	0	0	0	0	0	0
0	83	19	1	6	1	111	119.5	0	0	2	1	0	1	0	4	5.3	0	0	0	0	0	0	0	0
0	312	60	9	10	2	394	412.7	0	0	15	7	2	1	0	25	27.3	0	0	1	0	0	0	0	1	1
0	96	19	2	1	1	119	122.3	0	0	3	2	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0
1	74	15	0	1	0	91	91.7	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	81	10	0	4	1	96	102.2	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
1	98	8	1	0	2	110	111.9	0	0	2	3	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0
2	349	52	3	6	4	416	428.1	0	0	12	6	2	3	0	23	27.9	0	0	0	0	0	0	0	0	0
0	73	9	1	3	1	88	92.6	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
0	83	11	0	0	1	95	96	0	0	1	2	0	3	0	6	9.9	0	0	0	0	0	0	0	0	0
0	72	5	0	1	1	79	81.3	0	0	6	0	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0
1	60	3	2	0	0	66	66.4	0	0	2	2	2	1	0	7	9.3	0	0	0	0	0	0	0	0	0
1	288	28	3	4	3	328	336.3	0	0	11	4	2	5	0	22	29.5	0	0	1	0	0	0	0	1	1
0	54	7	1	0	0	62	62.5	0	0	1	1	0	3	0	5	8.9	0	0	0	0	0	0	0	0	0
0	53	7	0	2	0	62	64.6	0	0	4	1	1	2	0	8	11.1	0	0	0	0	0	0	0	0	0
0	49	3	1	0	0	53	53.5	0	0	3	2	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0
0	41	7	1	0	0	49	49.5	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0
0	197	24	3	2	0	226	230.1	0	0	10	5	3	5	0	23	31	0	0	0	0	0	0	0	0	0
0	33	2	0	1	0	36	37.3	0	0	4	1	2	1	0	8	10.3	0	0	0	0	0	0	0	0	0
0	48	2	2	1	0	53	55.3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0

0	39	2	0	0	0	41	41	0	0	1	2	1	0	0	4	4.5	0	0	0	0	0	0	0	0
0	27	3	0	0	0	30	30	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0
0	147	9	2	2	0	160	163.6	0	0	10	3	3	1	0	17	19.8	0	0	0	0	0	0	0	0
0	27	3	0	0	1	31	32	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0
0	42	3	1	0	0	46	46.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	33	1	0	0	0	34	34	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0
1	12	0	0	0	0	13	12.4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0
1	114	7	1	0	1	124	124.9	0	0	8	3	0	0	0	11	11	0	0	0	0	0	0	0	0
0	27	2	0	0	0	29	29	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0
0	23	1	0	0	0	24	24	0	2	1	0	0	0	0	3	1.8	0	0	0	0	0	0	0	0
0	27	2	0	0	0	29	29	0	3	0	0	0	0	0	3	1.2	0	0	0	0	0	0	0	0
0	14	1	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	91	6	1	0	0	98	98.5	0	5	3	0	1	0	0	9	6.5	0	0	0	0	0	0	0	0
0	14	2	0	1	0	17	18.3	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0
0	12	0	0	0	1	13	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	13	0	0	1	0	14	15.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	11	0	0	0	0	11	11	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	50	2	0	2	1	55	58.6	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0
9	3099	527	130	248	33	4048	4461.4	0	5	224	67	45	71	1	413	525.8	0	0	4	0	0	0	0	4	4



IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 4
Location: L1140 (SW)/R132 (NE/SE)/Access Road to Applegreen Petrol Station (NW)
Date: Tue 10-Oct-2023

	A => A									A => B									A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0
00:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	2	1	1	0	0	4	4.5	0
00:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	0	1	0	0	0	0	1	1	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	5	6	0	0	6	2	1	0	0	9	9.5	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0
01:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	0	2	1	0	0	0	3	3	0
01:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	1	0	0	4	4.5	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	4	0	0	9	1	1	0	0	11	11.5	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	1	0	0	0	0	1	1	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	4	4.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3	0	0	5	2	1	0	0	8	8.5	0
03:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	3	0	1	0	0	4	4.5	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	1	0	0	0	8	7.4	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	1	12	1	1	0	0	15	14.9	0
04:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	5	2	1	0	0	8	8.5	0
04:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	12	1	2	1	0	16	18.3	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	7	2	0	4	0	13	18.2	0
04:45	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	4.3	0	0	10	1	0	0	0	11	11	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	5	2	0	1	1	9	11.3	0	0	34	6	3	5	0	48	56	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	1	1	0	16	17.8	0
05:15	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0	20	3	0	1	0	24	25.3	0
05:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	1	8	9	0	0	26	5	0	0	0	31	31	0

05:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	1	8	9	0	1	23	7	2	2	0	35	38	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	2	22	24	0	1	84	16	3	4	0	106	112.1	0
06:00	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	47	10	3	0	0	60	61.5	0
06:15	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	1	9	10	0	0	57	15	1	2	0	75	78.1	0
06:30	0	0	0	0	0	0	0	0	0	1	0	19	2	0	0	1	23	23.2	0	0	71	10	2	5	1	89	97.5	0
06:45	0	0	0	0	0	0	0	0	0	0	1	36	3	0	0	0	40	39.4	0	0	80	15	1	1	0	97	98.8	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	71	9	0	0	2	84	84.6	0	0	255	50	7	8	1	321	335.9	0
07:00	0	0	0	0	0	0	0	0	0	2	0	39	6	2	0	2	51	52.4	0	0	68	19	1	0	1	89	90.5	0
07:15	0	0	0	0	0	0	0	0	0	1	1	54	14	1	1	1	73	74.4	0	0	72	10	1	1	2	86	89.8	0
07:30	0	0	0	0	0	0	0	0	0	0	0	62	14	3	1	0	80	82.8	0	1	66	17	2	2	0	88	91	0
07:45	0	0	0	0	0	0	0	0	0	0	0	64	18	2	0	2	86	89	0	0	96	6	0	2	1	105	108.6	0
H/TOT	0	0	0	0	0	0	0	0	0	3	1	219	52	8	2	5	290	298.6	0	1	302	52	4	5	4	368	379.9	0
08:00	0	0	0	0	0	0	0	0	0	0	1	46	9	1	1	0	58	59.2	0	2	70	6	1	0	2	81	82.3	0
08:15	0	0	0	1	0	0	0	1	1	1	0	32	6	1	2	1	43	46.3	0	0	71	11	1	1	0	84	85.8	0
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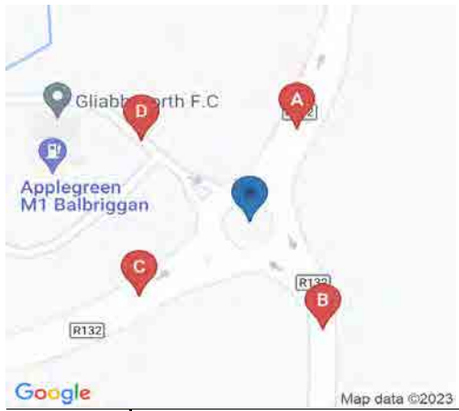
08:45	0	0	0	0	0	0	0	0	0	0	0	24	7	3	1	1	36	39.8	0	0	60	8	1	2	0	71	74.1	0
H/TOT	0	0	0	1	0	0	0	1	1	1	1	138	27	7	5	5	184	197.6	0	3	265	35	6	6	3	318	330	0
09:00	0	0	0	0	0	0	0	0	0	0	0	26	6	0	0	1	33	34	0	1	55	4	6	0	0	66	68.4	0
09:15	0	0	0	0	0	0	0	0	0	0	0	17	7	0	1	1	26	28.3	0	0	53	12	1	0	1	67	68.5	0
09:30	0	0	0	0	0	0	0	0	0	0	0	14	4	1	0	0	19	19.5	0	0	52	8	4	0	1	65	68	0
09:45	0	0	0	0	0	0	0	0	0	0	0	9	6	4	1	0	20	23.3	0	0	44	5	1	0	0	50	50.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	66	23	5	2	2	98	105.1	0	1	204	29	12	0	2	248	255.4	0
10:00	0	0	0	0	0	0	0	0	0	0	0	12	3	1	1	2	19	22.8	0	0	29	3	3	1	0	36	38.8	0
10:15	0	0	0	0	0	0	0	0	0	1	1	11	5	0	0	0	18	16.6	0	0	31	9	3	1	1	45	48.8	0
10:30	0	0	0	0	0	0	0	0	0	2	0	11	6	2	0	0	21	20.4	0	0	37	6	4	3	0	50	55.9	0
10:45	0	0	0	0	0	0	0	0	0	0	0	15	4	1	0	1	21	22.5	0	0	18	11	3	1	0	33	35.8	0
H/TOT	0	0	0	0	0	0	0	0	0	3	1	49	18	4	1	3	79	82.3	0	0	115	29	13	6	1	164	179.3	0
11:00	0	0	0	0	0	0	0	0	0	0	0	14	2	2	0	0	18	19	1	0	38	8	4	0	0	51	52.2	0
11:15	0	0	0	0	0	0	0	0	0	1	0	13	2	0	0	0	16	15.2	0	0	35	6	2	0	0	43	44	0
11:30	0	0	0	0	0	0	0	0	0	0	0	13	7	2	0	1	23	25	0	0	28	4	2	2	0	36	39.6	0
11:45	0	0	0	0	0	0	0	0	0	0	1	17	9	2	0	0	29	29.4	0	0	37	2	2	0	0	41	42	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	57	20	6	0	1	86	88.6	1	0	138	20	10	2	0	171	177.8	0
12:00	0	0	1	0	0	0	0	1	1	0	0	16	3	3	1	0	23	25.8	0	1	39	5	1	0	1	47	47.9	0
12:15	0	0	0	0	0	0	0	0	0	0	0	13	2	3	0	1	19	21.5	0	0	37	6	4	1	2	50	55.3	0
12:30	0	0	0	0	0	0	0	0	0	1	1	9	4	1	0	0	16	15.1	0	1	45	7	0	1	0	54	54.7	0
12:45	0	0	0	0	0	0	0	0	0	0	0	13	6	0	0	1	20	21	0	0	23	5	2	2	0	32	35.6	0
H/TOT	0	0	1	0	0	0	0	1	1	1	1	51	15	7	1	2	78	83.4	0	2	144	23	7	4	3	183	193.5	0
13:00	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14	0	0	25	4	2	0	0	31	32	0
13:15	0	0	0	0	0	0	0	0	0	1	0	14	2	1	0	1	19	19.7	0	0	37	6	1	2	0	46	49.1	0
13:30	0	0	2	0	0	0	0	2	2	1	0	14	2	0	0	2	19	20.2	0	0	39	5	4	1	0	49	52.3	0
13:45	0	0	0	0	0	0	0	0	0	1	0	16	2	1	0	0	20	19.7	0	1	24	5	0	0	0	30	29.4	0
H/TOT	0	0	2	0	0	0	0	2	2	3	0	56	8	2	0	3	72	73.6	0	1	125	20	7	3	0	156	162.8	0

14:00	0	0	0	0	0	0	0	0	0	0	0	18	2	1	0	2	23	25.5	0	0	34	4	4	1	0	43	46.3	0
14:15	0	0	0	0	0	0	0	0	0	0	0	19	3	1	0	0	23	23.5	0	0	30	4	2	1	0	37	39.3	0
14:30	0	0	0	0	0	0	0	0	0	0	1	19	3	0	0	0	23	22.4	0	0	37	5	1	0	0	43	43.5	0
14:45	0	0	0	0	0	0	0	0	0	0	0	18	2	2	0	1	23	25	0	0	27	6	2	2	0	37	40.6	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	74	10	4	0	3	92	96.4	0	0	128	19	9	4	0	160	169.7	0
15:00	0	0	0	0	0	0	0	0	0	0	0	16	4	0	0	0	20	20	0	0	35	4	1	2	0	42	45.1	0
15:15	0	0	0	0	0	0	0	0	0	0	0	31	7	1	0	1	40	41.5	0	0	34	7	1	1	0	43	44.8	0
15:30	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	1	23	24	0	0	50	5	3	0	0	58	59.5	0
15:45	0	0	0	0	0	0	0	0	0	0	0	18	2	3	1	0	24	26.8	0	0	38	5	1	0	0	44	44.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	87	13	4	1	2	107	112.3	0	0	157	21	6	3	0	187	193.9	0
16:00	0	0	0	0	0	0	0	0	0	0	0	20	3	2	0	1	26	28	0	0	56	8	2	1	0	67	69.3	0
16:15	0	0	0	0	0	0	0	0	0	0	0	24	3	0	0	1	28	29	0	0	32	6	1	0	0	39	39.5	0
16:30	0	0	0	0	0	0	0	0	0	0	0	32	3	1	0	1	37	38.5	0	0	47	7	0	1	0	55	56.3	0
16:45	0	0	0	0	0	0	0	0	0	1	0	22	3	2	0	1	29	30.2	0	0	40	9	1	0	0	50	50.5	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	98	12	5	0	4	120	125.7	0	0	175	30	4	2	0	211	215.6	0
17:00	0	0	1	0	0	0	0	1	1	0	0	29	5	0	1	0	35	36.3	0	0	57	6	0	0	0	63	63	0
17:15	0	0	0	0	0	0	0	0	0	1	0	29	3	1	1	0	35	36	0	0	43	4	1	0	0	48	48.5	0
17:30	0	0	0	0	0	0	0	0	0	0	0	24	4	1	1	1	31	33.8	0	0	50	3	0	1	1	55	57.3	0
17:45	0	0	0	0	0	0	0	0	0	0	1	13	3	0	0	2	19	20.4	0	0	28	4	0	0	1	33	34	0
H/TOT	0	0	1	0	0	0	0	1	1	1	1	95	15	2	3	3	120	126.5	0	0	178	17	1	1	2	199	202.8	0
18:00	0	0	0	0	0	0	0	0	0	1	0	17	2	1	0	0	21	20.7	0	0	37	3	0	0	2	42	44	0
18:15	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	1	13	14	0	0	26	1	1	0	1	29	30.5	0
18:30	0	0	0	0	0	0	0	0	0	1	0	18	3	0	0	0	22	21.2	0	0	24	6	0	0	0	30	30	0
18:45	0	0	0	0	0	0	0	0	0	0	1	13	1	0	0	1	16	16.4	0	0	18	5	0	0	0	23	23	0
H/TOT	0	0	0	0	0	0	0	0	0	2	1	60	6	1	0	2	72	72.3	0	0	105	15	1	0	3	124	127.5	0
19:00	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	1	24	25	0	1	29	5	0	0	1	36	36.4	0
19:15	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	1	17	18	0	0	26	2	2	0	1	31	33	0
19:30	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	1	16	17	0	0	23	4	0	0	0	27	27	0
19:45	0	0	0	0	0	0	0	0	0	0	1	13	0	0	0	0	14	13.4	0	0	25	2	0	1	0	28	29.3	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	65	2	0	0	3	71	73.4	0	1	103	13	2	1	2	122	125.7	0
20:00	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	0	0	21	2	0	0	0	23	23	1
20:15	0	0	0	0	0	0	0	0	0	0	0	13	0	2	0	0	15	16	0	0	16	2	0	0	0	18	18	0
20:30	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	1	9	10	0	0	14	1	0	0	0	15	15	1
20:45	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	12	0	0	0	0	12	12	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	46	1	2	0	1	50	52	0	0	63	5	0	0	0	68	68	2
21:00	0	0	0	0	0	0	0	0	0	1	0	16	2	0	0	0	19	18.2	0	0	16	2	0	0	1	19	20	0
21:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	14	1	0	0	0	15	15	0
21:30	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	1	12	12.2	0	0	10	0	0	0	0	10	10	0
21:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	16	1	0	0	0	17	17	0
H/TOT	0	0	0	0	0	0	0	0	0	2	0	32	2	0	0	1	37	36.4	0	0	56	4	0	0	1	61	62	0
22:00	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	4.4	0	0	11	0	0	0	0	11	11	0
22:15	0	0	0	0	0	0	0	0	0	0	0	10	1	1	0	0	12	12.5	0	0	8	0	0	0	0	8	8	0

22:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	0	4	0	0	0	0	4	4	0
22:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	10	1	1	0	0	12	12.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	16	1	1	0	1	20	20.9	0	0	33	1	1	0	0	35	35.5	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0
23:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	6	0	0	1	0	7	8.3	0
23:30	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	3	4.5	0	0	7	0	0	0	0	7	7	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	1	5	6.5	0	0	17	2	1	1	0	21	22.8	0
24 TOT	0	0	4	1	0	0	0	5	5	19	11	1313	239	59	16	51	1708	1787.5	1	11	2711	413	101	55	22	3314	3450.6	2



IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Site 4
Location: L1140 (SW)/R132 (NE/SE)/Access Road to Applegreen Petrol Station (NW)
Date: Wed 11-Oct-2023

	A => A									A => B										A => C								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	1	0	0	0	0	1	1	0
00:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	8	1	0	0	0	9	9	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0
01:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	4	0	0	4	0	0	0	0	4	4	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	4	5	0	0	11	0	1	0	0	12	12.5	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	0	1	1.5	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	3	0	2	0	0	5	6	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	7	8	0
03:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	8	1	1	0	0	10	10.5	0
03:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	4	0	0	6	0	0	0	0	6	6	0

03:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	5	2	0	0	0	7	7	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	5	6	0	0	24	3	3	0	0	30	31.5	0
04:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	6	0	0	2	0	8	10.6	0
04:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	1	1	0	0	6	6.5	0
04:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	1	10	1	1	1	0	14	15.2	0
04:45	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	7	1	1	0	0	9	9.5	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	1	7	8	0	1	27	3	3	3	0	37	41.8	0
05:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	12	2	1	3	0	18	22.4	0
05:15	0	0	0	1	0	0	0	1	1	0	0	6	1	0	0	0	7	7	0	0	12	2	0	2	0	16	18.6	0
05:30	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	1	11	12	0	1	37	5	0	1	0	44	44.7	0
05:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4	5	0	0	30	1	2	0	0	33	34	0
H/TOT	0	0	0	1	0	0	0	1	1	0	0	20	1	0	0	2	23	25	0	1	91	10	3	6	0	111	119.7	0
06:00	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	39	9	0	0	0	48	48	0
06:15	0	0	0	0	0	0	0	0	0	0	0	15	2	0	1	1	19	21.3	0	0	58	12	0	0	0	70	70	0
06:30	0	0	0	0	0	0	0	0	0	0	0	22	4	0	0	1	27	28	0	0	82	11	2	2	1	98	102.6	0
06:45	0	0	0	0	0	0	0	0	0	0	0	37	9	1	0	0	47	47.5	0	0	71	19	0	2	0	92	94.6	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	80	16	1	1	2	100	103.8	0	0	250	51	2	4	1	308	315.2	0
07:00	0	0	0	0	0	0	0	0	0	0	0	54	6	2	2	1	65	69.6	0	0	75	16	1	3	2	97	103.4	1
07:15	0	0	0	0	0	0	0	0	0	1	0	55	16	4	1	1	78	81.5	0	0	60	10	0	2	1	73	76.6	0
07:30	0	0	0	0	0	0	0	0	0	0	1	79	9	1	1	0	91	92.2	0	0	74	13	1	0	0	88	88.5	0
07:45	0	0	0	0	0	0	0	0	0	0	0	63	19	2	0	2	86	89	0	0	65	14	1	4	1	85	91.7	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	251	50	9	4	4	320	332.3	0	0	274	53	3	9	4	343	360.2	1
08:00	0	0	0	0	0	0	0	0	0	0	2	66	13	1	0	0	82	81.3	0	0	86	8	2	0	2	98	101	0
08:15	0	0	0	0	0	0	0	0	0	0	1	40	5	2	1	0	49	50.7	0	1	62	7	3	2	0	75	78.5	0
08:30	0	0	0	0	0	0	0	0	0	0	0	28	6	5	0	2	41	45.5	0	0	53	8	3	0	1	65	67.5	0
08:45	0	0	0	0	0	0	0	0	0	1	0	33	7	5	0	2	48	51.7	0	0	58	6	5	3	1	73	80.4	0
H/TOT	0	0	0	0	0	0	0	0	0	1	3	167	31	13	1	4	220	229.2	0	1	259	29	13	5	4	311	327.4	0
09:00	0	0	0	0	0	0	0	0	0	0	0	23	9	3	0	0	35	36.5	0	0	62	7	4	2	0	75	79.6	0
09:15	0	0	0	0	0	0	0	0	0	0	0	17	2	1	0	2	22	24.5	0	0	61	2	1	2	1	67	71.1	0
09:30	0	0	1	0	0	0	0	1	1	0	0	20	6	3	1	0	30	32.8	0	0	36	9	0	3	1	49	53.9	0
09:45	0	0	0	0	0	0	0	0	0	0	0	16	10	2	0	1	29	31	0	0	25	5	3	0	0	33	34.5	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	76	27	9	1	3	116	124.8	0	0	184	23	8	7	2	224	239.1	0
10:00	0	0	0	0	0	0	0	0	0	1	0	21	4	0	0	1	27	27.2	0	1	41	5	3	2	1	53	57.5	0
10:15	0	0	0	0	0	0	0	0	0	0	0	13	3	0	1	0	17	18.3	2	0	31	6	3	0	1	43	43.9	0
10:30	0	0	0	0	0	0	0	0	0	1	0	13	3	3	0	1	21	22.7	0	0	32	8	4	1	0	45	48.3	0
10:45	0	0	0	0	0	0	0	0	0	0	0	16	3	2	0	0	21	22	0	0	35	2	1	3	0	41	45.4	0
H/TOT	0	0	0	0	0	0	0	0	0	2	0	63	13	5	1	2	86	90.2	2	1	139	21	11	6	2	182	195.1	0
11:00	0	0	0	0	0	0	0	0	0	0	0	6	4	2	0	0	12	13	0	0	22	9	0	2	0	33	35.6	0
11:15	0	0	0	0	0	0	0	0	0	0	0	12	3	1	0	1	17	18.5	0	0	38	5	2	1	0	46	48.3	0
11:30	0	0	0	0	0	0	0	0	0	0	0	18	2	3	0	0	23	24.5	0	0	31	12	5	2	0	50	55.1	0
11:45	0	0	0	0	0	0	0	0	0	2	0	14	4	3	0	1	24	24.9	0	0	25	8	1	2	1	37	41.1	0
H/TOT	0	0	0	0	0	0	0	0	0	2	0	50	13	9	0	2	76	80.9	0	0	116	34	8	7	1	166	180.1	0

12:00	0	0	0	0	0	0	0	0	0	0	0	17	4	3	0	1	25	27.5	0	0	32	7	5	0	0	44	46.5	0
12:15	0	0	0	0	0	0	0	0	0	0	1	15	4	1	0	0	21	20.9	0	0	43	7	2	2	0	56	59.6	0
12:30	0	0	0	0	0	0	0	0	0	0	0	15	6	0	0	0	21	21	0	0	25	11	3	0	0	39	40.5	0
12:45	0	0	0	0	0	0	0	0	0	1	0	12	3	0	0	1	17	17.2	0	0	29	7	2	1	0	39	41.3	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	59	17	4	0	2	84	86.6	0	0	131	32	12	3	0	178	187.9	0
13:00	0	0	0	0	0	0	0	0	0	1	1	11	7	1	0	0	21	20.1	0	0	38	7	2	3	0	50	54.9	0
13:15	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	1	21	22	0	0	29	6	2	1	0	38	40.3	0
13:30	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13	0	0	41	4	3	2	0	50	54.1	0
13:45	0	0	0	0	0	0	0	0	0	0	0	10	4	1	0	1	16	17.5	0	0	30	6	1	2	0	39	42.1	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	49	16	2	0	2	71	72.6	0	0	138	23	8	8	0	177	191.4	0
14:00	0	0	0	0	0	0	0	0	0	0	0	15	2	0	1	1	19	21.3	0	0	43	2	4	1	1	51	55.3	0
14:15	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	1	16	17	0	1	31	6	2	1	0	41	42.7	0
14:30	0	0	0	0	1	0	0	1	1.5	0	0	15	1	2	0	1	19	21	0	0	34	10	4	2	0	50	54.6	0
14:45	0	0	0	0	0	0	0	0	0	0	0	20	2	0	0	0	22	22	0	0	30	6	1	0	0	37	37.5	0
H/TOT	0	0	0	0	1	0	0	1	1.5	0	0	62	8	2	1	3	76	81.3	0	1	138	24	11	4	1	179	190.1	0
15:00	0	0	0	0	0	0	0	0	0	0	0	17	2	2	0	2	23	26	0	0	50	7	2	1	1	61	64.3	0
15:15	0	0	0	0	0	0	0	0	0	0	0	14	2	2	1	2	21	25.3	0	0	39	4	1	0	0	44	44.5	0
15:30	0	0	0	0	0	0	0	0	0	0	0	11	2	1	0	0	14	14.5	0	0	41	9	1	1	0	52	53.8	0
15:45	0	0	0	0	0	0	0	0	0	1	0	26	3	2	0	1	33	34.2	0	0	53	9	2	1	1	66	69.3	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	68	9	7	1	5	91	100	0	0	183	29	6	3	2	223	231.9	0
16:00	0	0	0	0	0	0	0	0	0	0	0	21	4	1	0	1	27	28.5	0	0	56	12	0	1	0	69	70.3	0
16:15	0	0	0	0	0	0	0	0	0	0	0	25	2	3	1	1	32	35.8	0	0	31	5	1	0	1	38	39.5	0
16:30	0	0	0	0	0	0	0	0	0	0	0	22	5	2	1	1	31	34.3	0	0	43	10	2	0	0	55	56	0
16:45	0	0	0	0	0	0	0	0	0	0	0	19	4	1	0	1	25	26.5	0	0	40	6	1	1	0	48	49.8	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	87	15	7	2	4	115	125.1	0	0	170	33	4	2	1	210	215.6	0
17:00	0	0	0	0	0	0	0	0	0	0	0	27	7	2	0	1	37	39	0	1	61	5	0	0	0	67	66.4	0
17:15	0	0	0	0	0	0	0	0	0	1	0	16	2	2	1	0	22	23.5	0	1	45	7	0	1	2	56	58.7	1
17:30	0	0	0	0	0	0	0	0	0	2	0	34	2	0	0	2	40	40.4	1	1	31	4	0	1	0	38	37.9	0
17:45	0	0	0	0	0	0	0	0	0	0	0	19	2	1	0	1	23	24.5	0	0	29	4	1	0	1	35	36.5	0
H/TOT	0	0	0	0	0	0	0	0	0	3	0	96	13	5	1	4	122	127.4	1	3	166	20	1	2	3	196	199.5	1
18:00	0	0	0	0	0	0	0	0	0	0	0	14	1	1	0	1	17	18.5	0	0	34	2	0	0	1	37	38	0
18:15	0	0	0	0	0	0	0	0	0	5	1	14	1	1	0	0	22	17.9	0	1	40	4	0	0	1	46	46.4	0
18:30	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19	0	0	19	4	0	0	0	23	23	0
18:45	0	0	0	0	0	0	0	0	0	0	0	12	1	2	0	1	16	18	0	0	24	3	0	0	0	27	27	0
H/TOT	0	0	0	0	0	0	0	0	0	5	1	57	5	4	0	2	74	73.4	0	1	117	13	0	0	2	133	134.4	0
19:00	0	0	1	0	0	0	0	1	1	1	0	15	2	0	0	1	19	19.2	0	0	25	3	0	0	1	29	30	0
19:15	0	0	1	0	0	0	0	1	1	0	0	16	1	0	0	0	17	17	0	0	28	5	0	0	2	35	37	0
19:30	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	1	19	20	0	0	27	3	0	0	0	30	30	0
19:45	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	0	14	14.5	0	0	20	3	1	0	0	24	24.5	0
H/TOT	0	0	2	0	0	0	0	2	2	1	0	62	3	1	0	2	69	70.7	0	0	100	14	1	0	3	118	121.5	0
20:00	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34	0	0	24	2	0	0	0	26	26	0
20:15	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16	0	0	14	0	0	0	0	14	14	0

20:30	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	1	11	11.4	0	0	20	2	0	0	0	22	22	0
20:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	12	2	0	0	1	15	16	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	60	2	0	0	1	64	64.4	0	0	70	6	0	0	1	77	78	0
21:00	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	11	10.2	0	0	24	1	1	0	0	26	26.5	0
21:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	18	1	0	0	0	19	19	0
21:30	0	0	0	0	0	0	0	0	0	1	0	11	3	0	0	1	16	16.2	0	0	5	0	0	0	0	5	5	0
21:45	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	8	1	0	0	0	9	9	0
H/TOT	0	0	0	0	0	0	0	0	0	2	0	34	3	0	0	1	40	39.4	0	0	55	3	1	0	0	59	59.5	0
22:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	1	0	11	0	0	0	0	12	11.2	0
22:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	12	0	0	0	0	12	12	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	6	0	1	0	0	7	7.5	0
22:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	7	0	0	0	0	7	7	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	7	8	1	0	36	0	1	0	0	38	37.7	0
23:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
23:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	7	0	0	1	0	8	9.3	0
23:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	4	0	0	8	0	0	0	0	8	8	0
23:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	1	9	10	0	0	19	0	0	1	0	20	21.3	0
24 TOT	0	0	3	1	1	0	0	5	5.5	20	8	1366	245	79	13	51	1782	1868.6	4	9	2709	425	102	70	27	3346	3506.4	2

A => D								B => A									B => B									B => C			
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV
0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	2	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	6	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	4	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0
0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	4	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	6	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	3	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	6	2	0	2	0	10	12.6	0	0	2	2	0	0	1	5	6	0	0	1	0	0	0	1	1	0	0	9	0
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0	17	5	1	0	0	23	23.5	0	1	24	4	1	0	2	32	33.9	0	0	0	0	0	0	0	0	0	0	28	0
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3	347	76	12	8	2	450	465	23	16	1142	178	60	16	48	1483	1553.8	0	0	10	1	0	0	0	11	11	1	6	1216	253

A => D								B => A									B => B									B => C			
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV
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0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
0	2	0	0	0	0	2	2	0	0	5	1	0	0	1	7	8	0	0	0	0	0	0	0	0	0	0	0	9	1
1	365	76	17	16	1	478	506.1	20	10	1115	192	65	22	49	1473	1561.1	1	0	3	0	1	1	0	6	7	0	1	1200	293

					B => D									C => A									C => B						
OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
0	2	0	4	6.6	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9	0	0	1	0	0	0	0
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	1	1	1	1	0
0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0
0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	0	9	9	0	0	2	0	0	3	0
0	3	0	9	12.9	0	0	1	0	0	0	0	1	1	0	0	22	4	0	0	0	26	26	0	0	4	1	1	4	0
0	2	0	6	8.6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0
0	2	0	4	6.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
0	2	0	2	4.6	0	0	1	0	0	0	0	1	1	0	0	2	2	1	0	0	5	5.5	0	0	0	0	0	0	0
0	6	0	12	19.8	0	0	1	0	0	0	0	1	1	0	0	9	2	1	0	0	12	12.5	0	0	3	0	0	2	0
0	3	0	4	7.9	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	1	0	0	0
0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0
0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0
0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0
0	5	0	9	15.5	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13	0	0	0	1	0	0	0
0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	5.5	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6	0	0	1	0	0	0	0
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	4	2	0	0	9	10	0	0	2	1	0	0	0
0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0	0	10	7	3	0	0	20	21.5	0	0	5	1	0	0	0
1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	4	3	0	1	0	8	9.3	0	0	3	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	3	0	0	1	0	4	5.3	0	0	3	1	0	1	0
0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	2	0	0	1	3	4	0	0	8	1	0	0	0
0	1	0	3	4.3	0	0	1	0	0	0	0	1	1	0	0	4	0	1	1	0	6	7.8	0	0	13	2	0	0	0
1	1	0	7	8.8	0	0	2	1	0	0	0	3	3	0	0	11	5	1	3	1	21	26.4	0	0	27	4	0	1	0
0	1	0	1	2.3	0	0	0	1	0	1	0	2	3.3	0	0	2	0	0	0	0	2	2	0	0	5	1	0	0	0
0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	5	0	0	0	0
0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	18	0	0	1	0

2	0	0	5	6	0	0	0	2	0	0	0	2	2	0	0	2	1	0	0	1	4	5	0	0	15	2	0	0	0
2	1	0	12	14.3	0	0	0	3	0	1	0	4	5.3	0	0	11	3	0	0	1	15	16	0	0	43	3	0	1	0
0	1	0	4	5.3	0	0	3	2	0	0	0	5	5	0	0	11	0	0	0	0	11	11	0	0	9	5	0	3	0
1	1	0	8	9.8	0	0	2	0	1	0	0	3	3.5	0	0	7	2	0	0	1	10	11	0	0	13	2	1	1	0
1	5	0	16	23	0	0	1	0	0	0	0	1	1	0	0	15	7	0	1	2	25	28.3	0	0	17	3	2	3	0
0	3	0	12	15.9	0	0	3	1	0	1	0	5	6.3	0	0	12	6	0	2	2	22	26.6	0	0	20	7	0	2	0
2	10	0	40	54	0	0	9	3	1	1	0	14	15.8	0	0	45	15	0	3	5	68	76.9	0	0	59	17	3	9	0
1	3	0	11	15.4	0	0	3	0	0	1	0	4	5.3	0	0	15	3	2	0	0	20	21	0	0	14	11	0	5	0
2	2	0	21	24.6	0	0	3	1	1	1	0	6	7.8	0	0	13	10	0	3	1	27	31.9	0	1	33	6	2	3	0
3	6	0	33	42.3	0	0	4	1	0	1	0	6	7.3	0	0	28	8	0	0	1	37	38	0	0	28	7	0	1	0
2	4	0	40	45.6	0	0	0	3	0	0	0	3	3	0	0	51	10	1	2	0	64	67.1	0	0	30	23	4	9	0
8	15	0	105	127.9	0	0	10	5	1	3	0	19	23.4	0	0	107	31	3	5	2	148	158	0	1	108	37	6	18	0
2	6	1	43	52	0	0	9	0	0	0	0	9	9	0	0	48	8	1	2	0	59	62.1	0	1	28	11	1	10	1
1	9	0	40	52.2	0	0	2	2	0	3	0	7	10.9	0	0	33	7	6	0	0	46	49	0	0	39	9	2	9	0
2	4	0	37	43.2	0	0	1	2	0	4	0	7	12.2	0	0	39	5	3	0	0	47	48.5	0	0	69	11	3	4	0
2	7	0	34	44.1	0	0	0	2	0	1	0	3	4.3	0	0	44	8	5	0	0	57	59.5	0	0	32	7	2	6	0
7	26	1	154	191.5	0	0	12	6	0	8	0	26	36.4	0	0	164	28	15	2	0	209	219.1	0	1	168	38	8	29	1
3	6	1	24	34.3	0	0	1	0	1	1	0	3	4.8	0	0	24	8	3	1	1	37	40.8	0	0	35	9	4	5	2
2	10	0	30	44	0	0	6	3	0	2	0	11	13.6	0	0	25	8	3	1	3	40	45.8	0	0	25	3	2	3	0
4	5	0	21	29.5	0	0	0	0	0	0	0	0	0	0	0	30	9	2	0	0	41	42	0	0	14	8	1	4	0
2	2	0	19	22.6	0	0	2	0	0	2	0	4	6.6	0	1	28	7	3	1	0	40	42.2	0	0	19	6	5	5	0
11	23	1	94	130.4	0	0	9	3	1	5	0	18	25	0	1	107	32	11	3	4	158	170.8	0	0	93	26	12	17	2
2	8	0	23	34.4	0	0	0	2	0	0	1	3	4	0	0	18	9	4	4	1	36	44.2	0	0	7	7	2	5	0
2	5	0	17	24.5	0	0	2	4	0	0	1	7	8	0	0	24	8	1	2	0	35	38.1	0	0	8	5	1	9	0
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1	7	0	19	28.6	0	1	2	1	1	1	0	6	7.2	0	0	17	5	4	0	0	26	28	0	0	14	7	2	6	0
7	27	0	86	124.6	0	1	5	8	3	1	2	20	24.2	0	1	89	30	10	7	1	138	152.5	0	1	43	21	9	28	0
2	9	0	23	35.7	1	0	4	0	0	0	1	6	6.2	0	0	28	4	3	1	0	36	38.8	0	0	11	3	2	7	0
5	6	0	27	37.3	0	0	3	2	0	2	0	7	9.6	0	0	20	10	2	0	0	32	33	0	0	9	0	3	5	0
4	4	0	17	24.2	0	0	3	0	1	2	0	6	9.1	0	1	32	7	1	1	0	42	43.2	0	0	10	0	3	4	0
1	2	0	13	16.1	0	0	1	0	0	1	0	2	3.3	0	0	22	5	2	1	0	30	32.3	0	0	16	4	6	4	0
12	21	0	80	113.3	1	0	11	2	1	5	1	21	28.2	0	1	102	26	8	3	0	140	147.3	0	0	46	7	14	20	0
2	1	0	14	16.3	0	0	3	0	0	2	0	5	7.6	0	0	31	7	4	2	0	44	48.6	0	0	11	5	1	6	0
2	5	0	28	35.5	0	0	4	1	0	0	0	5	5	0	0	29	16	3	1	0	49	51.8	0	1	11	0	1	6	0
2	7	0	31	41.1	0	0	3	0	0	1	0	4	5.3	0	0	28	5	2	0	1	36	38	0	0	12	1	1	3	0
1	6	0	27	34.7	0	0	0	0	0	1	0	1	2.3	0	0	36	7	1	2	0	46	49.1	0	0	13	0	2	7	0
7	19	0	100	127.6	0	0	10	1	0	4	0	15	20.2	0	0	124	35	10	5	1	175	187.5	0	1	47	6	5	22	0
3	5	0	29	37	0	0	12	0	2	0	0	14	15	0	0	42	9	3	1	0	55	57.8	0	0	7	2	1	6	0
2	11	0	27	42.3	0	0	4	3	0	0	0	7	7	0	0	34	7	1	0	0	42	42.5	0	1	18	4	4	2	0
2	4	0	22	28.2	0	0	0	1	0	1	0	2	3.3	0	0	47	3	1	0	0	51	51.5	0	0	23	5	3	5	0
5	7	0	29	40.6	0	0	8	3	0	0	0	11	11	0	0	40	5	3	3	0	51	56.4	0	0	19	2	1	9	0
12	27	0	107	148.1	0	0	24	7	2	1	0	34	36.3	0	0	163	24	8	4	0	199	208.2	0	1	67	13	9	22	0

3	7	0	19	29.6	0	0	1	4	0	0	0	5	5	0	0	43	7	3	0	0	53	54.5	0	0	23	2	1	6	0
0	6	0	27	34.8	0	0	5	2	0	1	1	9	11.3	0	1	41	13	1	3	0	59	62.8	0	0	14	1	5	8	0
1	6	0	33	41.3	0	0	1	0	1	2	0	4	7.1	0	0	60	10	3	2	0	75	79.1	0	0	12	5	2	8	0
1	8	0	41	51.9	0	0	0	0	0	1	0	1	2.3	0	0	45	8	1	0	0	54	54.5	0	0	10	2	0	8	0
5	27	0	120	157.6	0	0	7	6	1	4	1	19	25.7	0	1	189	38	8	5	0	241	250.9	0	0	59	10	8	30	0
0	6	0	36	43.8	0	0	6	2	0	0	1	9	10	0	0	55	9	3	1	1	69	72.8	0	0	13	5	2	5	0
3	3	1	35	41.4	0	0	5	0	1	1	0	7	8.8	0	0	42	9	3	0	0	54	55.5	0	0	21	2	1	5	0
5	7	0	43	54.6	0	0	4	4	0	0	1	9	10	0	0	65	15	1	0	0	81	81.5	0	0	18	5	3	6	0
2	6	2	43	53.8	0	0	4	1	0	0	0	5	5	0	0	57	12	4	1	0	74	77.3	0	0	13	3	2	11	0
10	22	3	157	193.6	0	0	19	7	1	1	2	30	33.8	0	0	219	45	11	2	1	278	287.1	0	0	70	15	8	27	0
1	6	0	62	70.3	0	0	5	1	0	0	0	6	6	0	0	72	9	4	2	0	87	91.6	0	0	14	3	1	4	1
3	6	1	65	74.7	0	0	6	5	0	0	0	11	11	0	0	63	10	0	2	0	75	77.6	0	0	16	2	0	3	0
1	7	0	70	79.6	0	0	6	3	0	0	0	9	9	0	0	80	24	1	3	0	108	112.4	0	1	25	6	2	2	1
4	2	0	47	51	0	0	3	2	1	0	0	6	6.5	0	0	84	9	0	1	0	94	95.3	0	0	23	9	2	3	1
9	21	1	244	275.6	0	0	20	11	1	0	0	32	32.5	0	0	299	52	5	8	0	364	376.9	0	1	78	20	5	12	3
2	2	1	74	78	0	0	3	1	1	0	0	5	5.5	0	1	95	10	0	2	1	109	112	0	0	19	4	0	0	0
2	2	0	61	64.6	1	0	6	2	0	0	0	9	8.2	0	1	66	7	1	0	1	76	76.9	0	0	28	2	0	1	0
0	1	0	52	53.3	0	0	5	0	1	0	0	6	6.5	0	0	90	9	2	0	1	102	104	0	0	34	3	0	2	0
1	2	0	46	49.1	0	0	2	1	0	0	0	3	3	0	2	92	15	1	1	1	112	113.6	0	0	20	2	1	3	0
5	7	1	233	245	1	0	16	4	2	0	0	23	23.2	0	4	343	41	4	3	4	399	406.5	0	0	101	11	1	6	0
0	2	0	39	41.6	0	0	0	0	0	0	0	0	0	0	0	82	9	1	0	1	93	94.5	0	0	20	1	1	2	0
2	3	0	34	38.9	0	0	6	0	0	0	0	6	6	0	1	55	8	1	0	1	66	66.9	0	0	14	0	1	3	0
0	1	0	20	20.7	0	0	0	0	0	1	0	1	2.3	0	0	63	6	0	1	1	71	73.3	0	0	8	2	0	1	0
1	1	0	12	13.8	0	0	2	3	0	0	0	5	5	0	0	47	7	0	0	0	54	54	0	0	12	2	2	2	0
3	7	0	105	115	0	0	8	3	0	1	0	12	13.3	0	1	247	30	2	1	3	284	288.7	0	0	54	5	4	8	0
0	2	0	24	26.6	0	0	0	1	0	0	0	1	1	0	0	42	6	0	0	0	48	48	0	0	15	3	1	0	0
0	1	0	18	19.3	0	0	1	0	0	0	0	1	1	0	0	58	4	2	0	0	64	65	0	0	16	2	0	1	0
2	3	0	26	30.9	0	0	1	0	0	0	0	1	1	0	0	46	2	0	1	0	49	50.3	0	0	11	1	0	1	0
0	0	0	12	12	0	0	1	2	0	0	0	3	3	0	0	40	1	0	1	0	42	43.3	0	0	11	1	0	0	0
2	6	0	80	88.8	0	0	3	3	0	0	0	6	6	0	0	186	13	2	2	0	203	206.6	0	0	53	7	1	2	0
0	0	0	9	9	0	1	3	0	0	0	0	4	3.4	0	0	32	6	0	0	0	38	38	0	0	14	0	0	2	0
0	1	0	15	16.3	0	0	0	0	0	0	0	0	0	0	0	45	2	2	0	0	49	50	0	0	6	2	0	2	0
1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0	1	37	2	0	0	0	40	39.4	0	0	6	0	1	2	0
0	2	0	14	16.6	0	0	5	0	0	1	0	6	7.3	0	0	30	0	0	0	0	30	30	0	0	10	0	1	0	0
1	3	0	44	48.4	0	1	8	0	0	1	0	10	10.7	0	1	144	10	2	0	0	157	157.4	0	0	36	2	2	6	0
0	2	0	8	10.6	0	0	1	0	0	0	0	1	1	0	0	24	1	0	0	0	25	25	0	0	5	1	1	1	0
0	0	0	12	12	0	0	2	0	0	0	0	2	2	0	0	39	2	0	0	0	41	41	0	0	8	0	0	1	0
1	1	0	10	11.8	0	0	1	0	0	0	0	1	1	0	0	18	0	0	0	0	18	18	0	0	9	2	0	3	0
0	1	0	6	7.3	0	0	4	0	0	0	0	4	4	0	0	20	1	0	0	0	21	21	0	0	2	1	0	1	0
1	4	0	36	41.7	0	0	8	0	0	0	0	8	8	0	0	101	4	0	0	0	105	105	0	0	24	4	1	6	0
0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	1	14	0	0	1	0	16	16.7	0	0	6	0	0	0	0
1	0	0	7	7.5	0	0	4	1	0	0	0	5	5	0	0	18	1	1	0	0	20	20.5	0	0	6	0	0	0	0

0	0	0	5	5	0	0	1	0	0	0	0	1	1	0	0	13	1	0	0	0	14	14	0	0	9	0	0	0	0
0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	16	0	0	1	0	17	18.3	0	0	4	0	0	2	0
1	0	0	21	21.5	0	0	7	1	0	0	0	8	8	0	1	61	2	1	2	0	67	69.5	0	0	25	0	0	2	0
0	2	0	6	8.6	0	0	0	0	0	0	0	0	0	0	0	8	0	0	1	0	9	10.3	0	0	4	0	0	1	0
0	2	0	7	9.6	0	0	0	0	0	0	0	0	0	0	0	17	0	1	0	0	18	18.5	0	0	1	1	0	1	0
0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	0	9	9	0	0	3	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	1	0	0	1	0
0	4	0	15	20.2	0	0	1	0	0	0	0	1	1	0	0	37	2	1	1	0	41	42.8	0	0	9	1	0	4	0
106	286	7	1875	2302.4	2	2	191	74	14	36	6	325	382	0	11	2801	481	106	59	23	3481	3627.1	0	6	1223	250	97	276	6

					B => D									C => A									C => B						
OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
0	1	0	2	3.3	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4	0	0	1	1	0	1	0
0	2	0	2	4.6	0	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	7	8.3	0	0	3	0	0	1	0
0	2	0	3	5.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	7	7.5	0	0	2	0	0	3	0
0	5	0	7	13.5	0	0	1	0	0	0	0	1	1	0	0	15	2	1	1	0	19	20.8	0	0	7	1	0	5	0
0	4	0	5	10.2	0	0	2	0	0	0	0	2	2	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	3.5	0	0	2	0	0	0	0
0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0
0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	5	5.5	0	0	0	0	0	0	0
0	6	0	12	19.8	0	0	2	0	0	0	0	2	2	0	0	9	3	2	0	0	14	15	0	0	4	0	0	0	0
0	4	0	9	14.2	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4	0	0	0	1	0	0	0
0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0
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0	5	0	14	20.5	0	0	1	0	0	0	0	1	1	0	0	21	1	1	0	0	23	23.5	0	0	0	2	0	0	0
1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	2	0	0	0	0
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	4	5.3	0	0	0	0	0	0	0
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0	2	0	2	4.6	0	0	0	0	0	0	0	0	0	0	0	0	4	4	2	0	0	10	11	0	0	1	1	0	0	0
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1	0	0	5	5.5	0	0	1	1	0	0	0	2	2	0	1	9	4	0	2	1	17	20	0	0	26	2	0	0	0	
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0	3	0	9	12.9	0	0	3	1	0	0	0	4	4	0	0	17	1	0	1	1	20	22.3	0	0	4	4	0	1	0	
0	2	0	14	16.6	0	0	2	0	1	0	0	3	3.5	0	0	21	7	0	0	2	30	32	0	0	10	5	1	1	0	
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1	4	0	19	24.7	0	0	3	1	0	0	0	4	4	0	0	24	4	2	0	1	31	33	0	0	30	9	0	2	0	
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1	5	0	38	45	0	0	0	0	0	1	0	1	2.3	0	0	53	11	3	2	0	69	73.1	0	0	51	18	2	5	0	
2	17	0	89	112.1	0	0	9	1	0	1	0	11	12.3	0	0	138	27	6	5	3	179	191.5	0	0	152	47	7	20	0	
2	6	1	37	46.8	0	0	4	0	0	2	0	6	8.6	0	2	40	8	3	1	0	54	55.6	0	0	41	9	1	11	0	
0	9	1	34	46.7	0	0	6	3	2	0	0	11	12	0	0	39	4	2	3	0	48	52.9	0	0	62	15	6	5	2	
0	7	0	38	47.1	0	0	5	0	1	1	0	7	8.8	0	0	34	4	4	0	0	42	44	0	0	69	12	3	3	0	
0	5	0	28	34.5	0	0	2	1	0	1	0	4	5.3	0	1	39	7	3	3	0	53	57.8	0	0	43	13	1	7	0	
2	27	2	137	175.1	0	0	17	4	3	4	0	28	34.7	0	3	152	23	12	7	0	197	210.3	0	0	215	49	11	26	2	
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2	2	0	20	23.6	0	0	3	0	1	1	0	5	6.8	0	0	16	13	2	2	0	33	36.6	0	0	31	9	5	3	0	
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2	5	0	25	32.5	0	0	4	0	1	1	0	6	7.8	0	0	34	8	6	3	1	52	59.9	0	0	15	6	3	2	0	
6	23	0	97	129.9	0	0	9	0	2	3	1	15	20.9	0	0	116	33	12	5	3	169	184.5	0	0	103	30	15	14	0	
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11	13	1	88	111.4	0	0	6	7	4	0	1	18	21	0	0	99	31	8	8	0	146	160.4	0	0	47	15	10	21	0	
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6	27	0	96	134.1	0	0	7	3	0	4	0	14	19.2	0	1	113	35	18	7	0	174	191.5	0	0	30	12	9	22	0	

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10	15	1	119	144.5	0	0	14	1	1	4	0	20	25.7	0	0	128	33	14	10	1	186	207	0	0	58	18	7	15	0
1	8	0	32	42.9	0	0	8	2	0	0	0	10	10	0	0	37	6	4	2	0	49	53.6	0	0	12	2	0	6	0
0	10	0	23	36	0	0	4	0	0	1	0	5	6.3	0	0	28	9	4	1	2	44	49.3	0	0	18	2	1	6	0
0	3	0	19	22.9	0	0	0	4	0	1	0	5	6.3	0	0	47	10	0	2	0	59	61.6	0	0	15	1	0	5	1
2	2	0	23	26.6	0	0	2	0	0	0	0	2	2	0	0	45	9	2	1	0	57	59.3	0	0	13	2	1	7	1
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1	10	0	37	50.5	0	0	1	1	0	0	0	2	2	0	0	61	9	0	0	1	71	72	0	0	21	5	3	8	0
1	4	0	27	32.7	0	0	3	0	2	1	0	6	8.3	0	0	43	5	2	2	0	52	55.6	0	0	20	4	5	8	0
7	24	0	122	156.7	0	0	15	2	3	1	2	23	27.8	0	0	184	28	4	6	3	225	237.8	0	0	73	14	12	31	1
1	5	0	37	44	0	0	4	0	0	0	1	5	6	0	0	61	8	4	0	1	74	77	0	0	20	0	3	3	0
4	6	0	42	51.8	0	0	2	1	1	0	0	4	4.5	0	0	71	10	3	2	1	87	92.1	0	0	13	3	3	6	0
1	1	0	32	33.8	0	0	4	0	0	0	0	4	4	0	0	60	15	1	2	0	78	81.1	0	0	13	2	1	5	0
4	5	0	54	62.5	0	0	2	1	1	0	0	4	4.5	0	0	68	6	1	1	0	76	77.8	0	0	19	1	0	2	0
10	17	0	165	192.1	0	0	12	2	2	0	1	17	19	0	0	260	39	9	5	2	315	328	0	0	65	6	7	16	0
3	4	0	46	52.7	0	0	5	3	0	0	0	8	8	0	0	73	16	3	1	1	94	97.8	0	0	16	1	3	3	0
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0	2	1	44	47.6	0	0	8	3	0	0	1	12	13	1	0	83	14	1	3	1	103	107.6	0	0	24	5	1	3	0
8	12	1	194	214.6	0	0	22	9	0	0	2	33	35	1	0	288	45	8	6	2	350	363	0	0	75	13	8	10	0
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1	4	0	49	54.1	0	0	5	0	0	0	0	5	5	0	0	77	9	0	0	1	87	88	0	0	23	2	0	4	0
1	2	0	47	50.1	0	0	1	0	0	0	0	1	1	0	1	86	9	1	0	2	99	100.9	0	0	21	3	0	1	0
4	7	0	218	228.5	0	0	12	2	0	0	0	14	14	0	1	309	48	1	1	4	364	369.2	0	0	98	9	2	7	0
1	2	0	39	42.1	0	0	3	0	0	0	0	3	3	0	0	72	6	1	1	1	81	83.8	1	0	14	3	0	0	0
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0	3	0	24	27.9	0	0	4	2	0	0	0	6	6	0	0	70	4	0	0	1	75	76	0	0	14	0	0	2	0
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3	7	0	115	125.6	0	0	20	5	1	0	0	26	26.5	0	1	279	20	2	1	3	306	310.7	1	0	63	13	2	4	0
2	0	1	16	18	0	0	1	2	0	0	0	3	3	0	0	51	4	1	0	0	56	56.5	0	0	12	3	0	1	0
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3	1	1	68	71.8	0	0	5	4	0	0	0	9	9	0	0	175	15	1	1	0	192	193.8	0	0	49	7	1	4	0
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0	0	3	16	19	0	0	0	0	0	0	0	0	0	0	0	39	2	1	1	0	43	44.8	0	0	15	1	2	3	0

0	0	0	7	7	0	0	2	1	0	0	0	3	3	0	0	35	2	0	0	0	37	37	0	0	10	0	0	0	0
1	1	0	10	11.8	0	0	2	0	0	0	0	2	2	0	0	28	2	0	0	0	30	30	0	0	4	1	1	0	0
2	1	3	49	54.3	0	0	7	1	0	0	0	8	8	0	0	133	6	1	1	0	141	142.8	0	0	42	3	3	6	0
0	1	0	10	11.3	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	1	30	31	0	0	8	0	1	1	0
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0	1	0	10	11.3	0	0	2	0	0	0	0	2	2	0	0	28	1	0	1	0	30	31.3	0	0	13	0	0	2	0
0	0	0	6	6	0	0	4	0	0	0	0	4	4	0	1	12	0	0	0	0	13	12.4	0	0	4	0	0	0	0
0	2	0	37	39.6	0	0	7	1	0	0	0	8	8	0	1	107	6	1	1	1	117	119.2	0	0	29	2	1	3	0
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0	1	0	11	12.3	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	0	0	5	1	0	1	0
0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	29	29	0	0	5	1	0	2	0
0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	0	14	14.5	0	0	2	0	0	0	0
0	1	0	26	27.3	0	0	4	0	0	0	0	4	4	0	0	87	4	2	0	0	93	94	0	0	17	2	0	4	0
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0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	4	0	0	1	0
0	2	0	12	14.6	0	0	0	0	1	0	0	1	1.5	0	0	46	0	0	2	1	49	52.6	0	0	9	2	0	3	0
81	251	9	1835	2210.2	0	0	194	56	18	19	7	294	334.7	1	8	2901	470	120	82	31	3613	3805	1	0	1304	273	99	240	5

		C => C									C => D									D => A								
TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
4	5.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
5	8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	15.7	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	3	0	0	0	0	3	3	0
1	2.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
2	3.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
5	7.6	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5	0
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
32	33.3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	1	0	0	0	1	1	0
6	6	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0
5	5	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	3.5	0	0	1	1	0	0	0	2	2	0
19	20.3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0

17	17	0	0	0	0	0	0	0	0	0	0	0	5	1	0	1	0	7	8.3	0	0	1	0	0	0	0	1	1	0
47	48.3	0	0	0	0	0	0	0	0	0	0	0	7	4	1	3	0	15	19.4	0	0	2	1	0	0	0	3	3	0
17	20.9	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
17	18.8	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	12	12	0	0	3	0	0	0	0	3	3	0
25	29.9	0	0	0	0	0	0	0	0	0	0	0	7	3	0	1	0	11	12.3	0	0	2	1	0	0	0	3	3	0
29	31.6	0	0	0	0	0	0	0	0	0	0	0	4	9	0	2	0	15	17.6	0	0	2	1	1	0	0	4	4.5	0
88	101.2	0	0	0	0	0	0	0	0	0	0	0	24	17	0	3	0	44	47.9	0	0	7	2	1	0	0	10	10.5	0
30	36.5	0	0	0	0	0	0	0	0	0	0	0	3	4	2	2	0	11	14.6	0	0	0	0	0	0	0	0	0	0
48	52.3	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8	0	0	0	1	1	0	0	2	2.5	0
36	37.3	0	0	0	0	0	0	0	0	0	0	0	5	8	0	2	0	15	17.6	0	0	0	1	1	1	0	3	4.8	0
56	69.7	0	0	0	0	0	0	0	0	0	0	0	10	6	0	0	0	16	16	0	0	6	0	0	0	0	6	6	0
170	195.8	0	0	0	0	0	0	0	0	0	0	0	23	21	2	4	0	50	56.2	0	0	6	2	2	1	0	11	13.3	0
52	65.9	0	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	7	8.3	0	0	3	2	0	0	0	5	5	0
59	71.7	0	0	0	0	0	0	0	0	0	0	0	6	3	1	1	0	11	12.8	0	0	3	0	0	0	0	3	3	0
87	93.7	0	0	0	0	0	0	0	0	0	0	0	6	2	3	0	0	11	12.5	0	0	3	0	0	0	0	3	3	0
47	55.8	0	0	0	0	0	0	0	0	0	0	0	4	1	0	2	0	7	9.6	0	0	4	0	0	0	0	4	4	0
245	287.1	0	0	0	0	0	0	0	0	0	0	0	22	6	4	4	0	36	43.2	0	0	13	2	0	0	0	15	15	0
55	65.5	0	0	0	0	0	0	0	0	0	0	0	7	2	0	1	0	10	11.3	0	0	7	2	1	0	0	10	10.5	0
33	37.9	0	0	0	0	0	0	0	0	0	0	0	3	4	0	1	0	8	9.3	0	0	4	2	0	0	0	6	6	0
27	32.7	0	0	0	0	0	0	0	0	0	0	0	4	4	2	1	0	11	13.3	0	0	3	0	0	0	0	3	3	0
35	44	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5	0	1	1	1	0	0	0	3	2.4	0
150	180.1	0	0	0	0	0	0	0	0	0	0	0	21	11	3	3	0	38	43.4	0	1	15	5	1	0	0	22	21.9	0
21	28.5	0	0	0	0	0	0	0	0	0	0	0	5	3	0	2	0	10	12.6	0	0	5	1	0	0	0	6	6	0
23	35.2	0	0	0	0	0	0	0	0	0	0	0	6	2	1	1	1	11	13.8	0	0	2	2	0	0	0	4	4	0
29	40.8	0	0	0	0	0	0	0	0	0	0	0	4	2	2	3	0	11	15.9	0	0	3	2	0	0	0	5	5	0
29	37.8	0	0	0	0	0	0	0	0	0	0	0	8	0	2	0	0	10	11	0	1	6	1	3	0	0	11	11.9	0
102	142.3	0	0	0	0	0	0	0	0	0	0	0	23	7	5	6	1	42	53.3	0	1	16	6	3	0	0	26	26.9	0
23	33.1	0	0	0	0	0	0	0	0	0	0	0	6	1	2	1	0	10	12.3	0	0	2	1	1	0	0	4	4.5	0
17	25	0	0	1	0	0	0	0	1	1	0	0	4	5	0	1	0	10	11.3	1	0	4	0	0	0	1	6	6.2	0
17	23.7	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	4	2	0	0	0	6	6	0
30	38.2	0	0	0	0	0	0	0	0	0	0	0	4	2	1	4	0	11	16.7	0	0	1	1	0	0	1	3	4	0
87	120	0	0	1	0	0	0	0	1	1	0	0	17	9	3	6	0	35	44.3	1	0	11	4	1	0	2	19	20.7	0
23	31.3	0	0	0	0	0	0	0	0	0	0	0	8	3	2	3	0	16	20.9	0	0	5	3	0	1	0	9	10.3	0
19	26.7	0	0	0	0	0	0	0	0	0	0	0	4	6	1	3	0	14	18.4	0	0	8	2	1	0	0	11	11.5	0
17	21.4	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	10	10.5	0	0	5	0	0	0	0	5	5	0
22	32.1	0	0	0	0	0	0	0	0	0	0	0	8	2	1	3	0	14	18.4	0	0	2	1	0	0	0	3	3	0
81	111.5	0	0	0	0	0	0	0	0	0	0	0	28	12	5	9	0	54	68.2	0	0	20	6	1	1	0	28	29.8	0
16	24.3	0	0	0	0	0	0	0	0	0	0	0	8	4	1	3	0	16	20.4	0	0	4	1	1	0	0	6	6.5	0
29	33	0	0	0	1	0	0	0	1	1	0	0	6	4	1	1	0	12	13.8	0	0	3	1	0	0	0	4	4	0
36	44	0	0	0	0	0	0	0	0	0	0	0	2	4	1	1	0	8	9.8	0	0	6	3	1	0	0	10	10.5	0
31	43.2	0	0	0	0	0	0	0	0	0	0	0	9	3	1	1	0	14	15.8	0	0	6	0	2	1	0	9	11.3	0
112	144.5	0	0	0	1	0	0	0	1	1	0	0	25	15	4	6	0	50	59.8	0	0	19	5	4	1	0	29	32.3	0

32	40.3	0	0	0	0	0	0	0	0	0	0	0	7	2	0	1	0	10	11.3	0	0	9	2	0	0	0	11	11	0
28	40.9	0	0	0	0	0	0	0	0	0	0	0	6	4	1	1	0	12	13.8	1	0	0	0	0	0	0	1	0.2	0
27	38.4	0	0	0	0	0	0	0	0	0	0	0	3	2	1	2	0	8	11.1	0	0	4	2	1	0	0	7	7.5	0
20	30.4	0	0	0	0	0	0	0	0	0	0	0	4	3	1	1	0	9	10.8	0	0	3	1	0	0	0	4	4	0
107	150	0	0	0	0	0	0	0	0	0	0	0	20	11	3	5	0	39	47	1	0	16	5	1	0	0	23	22.7	0
25	32.5	0	0	0	0	0	0	0	0	0	0	0	6	0	1	2	0	9	12.1	0	0	3	1	0	1	0	5	6.3	0
29	36	0	0	0	0	0	0	0	0	0	0	0	3	3	0	2	0	8	10.6	0	0	4	0	0	0	0	4	4	0
32	41.3	0	0	0	0	0	0	0	0	0	0	0	7	1	3	1	0	12	14.8	0	0	4	2	1	0	0	7	7.5	0
34	49.3	0	0	0	0	0	0	0	0	0	0	0	5	5	1	2	0	13	16.1	0	0	4	0	0	0	1	5	6	0
120	159.1	0	0	0	0	0	0	0	0	0	0	0	21	9	5	7	0	42	53.6	0	0	15	3	1	1	1	21	23.8	0
23	29.7	0	0	0	0	0	0	0	0	0	0	0	7	1	0	3	1	12	16.9	0	0	7	3	0	1	0	11	12.3	0
21	24.9	0	0	1	0	0	0	0	1	1	0	0	5	7	1	0	0	13	13.5	0	0	7	3	0	0	0	10	10	0
37	41	0	0	0	0	0	0	0	0	0	0	0	12	6	2	1	0	21	23.3	0	0	5	3	0	0	0	8	8	0
38	43.9	0	0	0	0	0	0	0	0	0	0	0	11	3	0	1	0	15	16.3	0	0	8	2	1	1	0	12	13.8	0
119	139.5	0	0	1	0	0	0	0	1	1	0	0	35	17	3	5	1	61	70	0	0	27	11	1	2	0	41	44.1	0
23	23	0	0	0	0	0	0	0	0	0	0	0	6	3	1	2	0	12	15.1	0	0	2	1	0	0	0	3	3	0
31	32.3	0	0	0	0	0	0	0	0	0	0	0	11	2	0	1	0	14	15.3	1	0	11	1	0	0	0	13	12.2	0
39	41.6	0	0	0	0	0	0	0	0	0	0	0	5	2	0	3	0	10	13.9	0	0	5	0	0	0	0	5	5	0
26	30.4	0	0	0	0	0	0	0	0	0	0	0	12	0	0	3	0	15	18.9	0	0	10	1	0	1	0	12	13.3	0
119	127.3	0	0	0	0	0	0	0	0	0	0	0	34	7	1	9	0	51	63.2	1	0	28	3	0	1	0	33	33.5	0
24	27.1	0	0	0	0	0	0	0	0	0	0	0	11	0	2	2	0	15	18.6	0	0	5	0	0	0	0	5	5	0
18	22.4	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	8.5	0	0	7	0	0	0	0	7	7	0
11	12.3	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	7	1	0	0	0	8	8	0
18	21.6	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	7	1	0	0	0	8	8	0
71	83.4	0	0	0	0	0	0	0	0	0	0	0	33	1	3	2	0	39	43.1	0	0	26	2	0	0	0	28	28	0
19	19.5	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	6	0	0	0	0	6	6	0
19	20.3	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0
13	14.3	0	0	0	0	0	0	0	0	0	0	0	8	0	0	3	0	11	14.9	0	0	2	0	0	0	0	2	2	0
12	12	0	0	0	0	0	0	0	0	0	0	0	4	2	2	1	0	9	11.3	0	0	3	1	1	0	0	5	5.5	0
63	66.1	0	0	0	0	0	0	0	0	0	0	0	23	4	2	4	0	33	39.2	0	0	13	1	1	0	0	15	15.5	0
16	18.6	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	3	0	0	0	0	3	3	0
10	12.6	0	0	0	0	0	0	0	0	0	0	0	7	0	1	1	0	9	10.8	0	0	7	0	0	0	0	7	7	0
9	12.1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0
11	11.5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	4.3	0	0	1	0	0	0	0	1	1	0
46	54.8	0	0	0	0	0	0	0	0	0	0	0	22	1	1	2	0	26	29.1	0	0	13	0	0	0	0	13	13	0
8	9.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3.3	0	0	2	0	0	0	0	2	2	0
9	10.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0
14	17.9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
4	5.3	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	5	0	0	0	0	5	5	0
35	43.3	0	0	0	0	0	0	0	0	0	0	0	10	0	0	1	0	11	12.3	0	0	10	0	0	0	0	10	10	0
6	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
6	6	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	3	2	0	0	0	5	5	0

9	9	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	4	0	0	0	0	4	4	0
6	8.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
27	29.6	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9	0	0	9	2	0	0	0	11	11	0
5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	5.3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	1.4	0	0	2	0	0	0	0	2	2	0
2	3.3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	19.2	0	0	1	0	0	0	0	1	1	0	1	1	0	0	0	0	2	1.4	0	0	2	0	0	0	0	2	2	0
1857	2266.7	0	0	3	1	0	0	0	4	4	0	1	406	156	46	79	2	690	817.1	3	2	272	61	18	1	3	366	383.5	0

		C => C									C => D									D => A								
TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	1.4	0
4	5.3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0
5	8.9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
13	19.5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	1	4	0	0	0	0	5	4.4	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
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2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0
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4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	1	0	0	0	0	1	1	0
1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0
8	8	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
15	15	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
28	28	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0	0	6	6.5	0	0	3	1	0	0	0	4	4	0
5	5	0	0	1	0	0	0	0	1	1	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0
4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	11.3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	4	6.6	0	0	0	0	0	0	0	0	0	0
12	12	0	0	0	0	0	0	0	0	0	0	0	2	3	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0	0
31	32.3	0	0	1	0	0	0	0	1	1	0	0	4	4	1	3	0	12	16.4	0	0	0	0	0	0	0	0	0	0
18	18	0	0	0	0	0	0	0	0	0	0	0	8	3	1	1	0	13	14.8	0	0	1	0	0	0	0	1	1	0
9	10.3	0	0	0	0	0	0	0	0	0	0	0	11	3	0	1	0	15	16.3	0	0	1	0	0	0	0	1	1	0
17	18.8	0	0	0	0	0	0	0	0	0	0	0	6	5	0	1	0	12	13.3	0	0	2	0	0	1	0	3	4.3	0
25	28.1	0	0	0	0	0	0	0	0	0	0	0	7	1	1	4	0	13	18.7	0	0	3	1	0	0	0	4	4	0
69	75.2	0	0	0	0	0	0	0	0	0	0	0	32	12	2	7	0	53	63.1	0	0	7	1	0	1	0	9	10.3	0
38	43.7	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	0	5	7.6	0	0	0	1	0	0	0	1	1	0
41	43.6	0	0	0	0	0	0	0	0	0	0	0	9	9	0	1	0	19	20.3	0	0	1	2	0	0	0	3	3	0
71	84.7	0	0	0	0	0	0	0	0	0	0	0	10	2	0	1	0	13	14.3	0	0	2	2	0	0	0	4	4	0
76	83.5	0	0	0	0	0	0	0	0	0	0	0	6	5	1	0	0	12	12.5	0	0	1	1	0	1	0	3	4.3	0
226	255.5	0	0	0	0	0	0	0	0	0	0	0	26	18	1	4	0	49	54.7	0	0	4	6	0	1	0	11	12.3	0
62	76.8	0	0	0	0	0	0	0	0	0	0	0	7	5	0	0	0	12	12	0	0	2	2	0	0	0	4	4	0
90	101.5	0	0	0	0	0	0	0	0	0	0	0	7	2	1	1	0	11	12.8	0	0	3	2	0	0	0	5	5	0
87	92.4	0	0	0	0	0	0	0	0	0	0	0	10	2	0	3	1	16	20.9	0	0	5	2	3	0	0	10	11.5	0
64	73.6	0	0	0	0	0	0	0	0	0	0	0	7	9	0	1	0	17	18.3	0	0	4	4	1	0	0	9	9.5	0
303	344.3	0	0	0	0	0	0	0	0	0	0	0	31	18	1	5	1	56	64	0	0	14	10	4	0	0	28	30	0
59	70.4	0	0	0	0	0	0	0	0	0	0	0	9	2	0	1	0	12	13.3	0	0	7	2	0	0	0	9	9	0
48	54.4	0	0	0	0	0	0	0	0	0	0	0	6	4	2	0	2	14	17	0	0	3	1	1	0	1	6	7.5	0
29	32.8	0	0	0	0	0	0	0	0	0	0	0	7	1	0	2	1	11	14.6	0	0	7	1	0	0	0	8	8	0
26	30.1	0	0	0	0	0	0	0	0	0	0	0	3	2	1	1	0	7	8.8	0	0	4	2	1	0	0	7	7.5	0
162	187.7	0	0	0	0	0	0	0	0	0	0	0	25	9	3	4	3	44	53.7	0	0	21	6	2	0	1	30	32	0
24	27.6	0	0	0	0	0	0	0	0	0	0	0	5	1	0	2	0	8	10.6	0	0	1	0	2	0	1	4	6	0
18	24.2	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	5	2	0	0	0	7	7	0
28	43	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	0	4	5.8	0	0	3	0	0	0	0	3	3	0
23	30.5	0	0	0	0	0	0	0	0	0	0	0	2	1	0	2	0	5	7.6	0	0	2	0	0	0	0	2	2	0
93	125.3	0	0	0	0	0	0	0	0	0	0	0	10	4	1	5	0	20	27	0	0	11	2	2	0	1	16	18	0
13	21.3	0	0	0	0	0	0	0	0	0	0	0	7	3	1	0	0	11	11.5	0	0	2	3	1	0	1	7	8.5	0
19	26.5	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	6	6	0	0	2	2	0	0	0	4	4	0
23	32.8	0	0	0	0	0	0	0	0	0	0	0	2	3	3	2	0	10	14.1	0	0	5	1	1	0	0	7	7.5	0
18	25.5	0	0	0	0	0	0	0	0	0	0	0	6	1	1	1	0	9	10.8	0	0	4	1	0	0	0	5	5	0
73	106.1	0	0	0	0	0	0	0	0	0	0	0	17	11	5	3	0	36	42.4	0	0	13	7	2	0	1	23	25	0

22	27.9	0	0	0	0	0	0	0	0	0	0	0	7	2	1	4	0	14	19.7	0	0	4	1	0	0	0	5	5	0
26	28.3	0	0	0	0	0	0	0	0	0	0	0	6	2	2	2	0	12	15.6	0	0	5	2	0	1	0	8	9.3	0
24	32.3	0	0	0	0	0	0	0	0	0	0	0	4	2	2	1	0	9	11.3	0	0	6	0	1	0	0	7	7.5	0
26	32.5	0	0	0	0	0	0	0	0	0	0	0	6	1	1	0	0	8	8.5	0	0	7	2	1	0	0	10	10.5	0
98	121	0	0	0	0	0	0	0	0	0	0	0	23	7	6	7	0	43	55.1	0	0	22	5	2	1	0	30	32.3	0
20	27.8	0	0	0	0	0	0	0	0	0	0	0	10	5	2	0	0	17	18	0	0	8	2	2	0	0	12	13	0
27	35.3	0	0	0	0	0	0	0	0	0	0	0	8	2	1	4	0	15	20.7	0	0	7	1	1	0	0	9	9.5	0
22	29.5	0	0	0	0	0	0	0	0	0	0	0	8	2	3	2	0	15	19.1	0	0	5	3	1	0	0	9	9.5	0
30	40.6	0	0	0	0	0	0	0	0	0	0	0	7	4	0	1	0	12	13.3	0	0	3	0	0	0	0	3	3	0
99	133.2	0	0	0	0	0	0	0	0	0	0	0	33	13	6	7	0	59	71.1	0	0	23	6	4	0	0	33	35	0
27	36.8	0	0	0	0	0	0	0	0	0	0	0	10	2	0	1	0	13	14.3	0	0	5	2	1	0	0	8	8.5	0
30	42.7	0	0	1	0	0	0	0	1	1	0	0	4	2	0	0	0	6	6	0	0	3	0	0	0	0	3	3	0
37	48.9	0	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	6	7.3	0	0	8	0	1	1	0	10	11.8	0
37	49.9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	8	13.2	0	0	2	0	0	1	0	3	4.3	0
131	178.3	0	0	1	0	0	0	0	1	1	0	0	23	4	0	6	0	33	40.8	0	0	18	2	2	2	0	24	27.6	0
26	31.4	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5	0	10	16.5	0	0	4	1	0	0	0	5	5	0
25	34.3	0	0	0	0	0	0	0	0	0	0	0	6	1	0	2	0	9	11.6	0	0	3	1	0	1	0	5	6.3	0
21	28	0	0	0	0	0	0	0	0	0	0	0	7	2	0	1	0	10	11.3	0	0	4	1	0	1	0	6	7.3	0
22	24.6	0	0	0	0	0	0	0	0	0	0	0	5	3	1	2	0	11	14.1	0	0	9	1	0	1	1	12	14.3	0
94	118.3	0	0	0	0	0	0	0	0	0	0	0	20	9	1	10	0	40	53.5	0	0	20	4	0	3	1	28	32.9	0
23	28.4	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7	0	0	9	3	1	0	0	13	13.5	0
23	27.4	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14	0	0	11	1	0	0	0	12	12	0
27	29.8	0	0	0	0	0	0	0	0	0	0	0	8	4	1	0	0	13	13.5	0	0	9	2	0	0	0	11	11	0
33	37.4	0	0	0	0	0	0	0	0	0	0	0	3	4	0	3	0	10	13.9	0	0	2	3	0	0	0	5	5	0
106	123	0	0	0	0	0	0	0	0	0	0	0	28	12	1	3	0	44	48.4	0	0	31	9	1	0	0	41	41.5	0
31	34.6	0	0	0	0	0	0	0	0	0	0	0	12	4	1	0	0	17	17.5	0	0	4	1	0	0	0	5	5	0
31	31	0	0	0	0	0	0	0	0	0	0	1	4	2	1	1	0	9	10.2	0	0	6	0	0	0	0	6	6	0
29	34.2	0	0	0	0	0	0	0	0	0	0	0	13	0	0	4	0	17	22.2	0	0	1	1	0	1	0	3	4.3	0
25	26.3	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0	8	1	0	0	0	9	9	0
116	126.1	0	0	0	0	0	0	0	0	0	0	1	41	7	2	5	0	56	62.9	0	0	19	3	0	1	0	23	24.3	0
18	17.2	0	0	0	0	0	0	0	0	0	0	0	6	1	0	2	0	9	11.6	0	0	8	0	0	0	0	8	8	0
27	30.6	0	0	0	0	0	0	0	0	0	0	0	6	2	0	1	0	9	10.3	0	0	2	1	0	0	0	3	3	0
16	18.6	0	0	0	0	0	0	0	0	0	0	1	7	2	0	1	0	11	11.7	0	0	6	1	0	0	0	7	7	0
22	22	0	0	0	0	0	0	0	0	0	0	0	9	1	1	0	0	11	11.5	0	0	5	1	0	0	0	6	6	0
83	88.4	0	0	0	0	0	0	0	0	0	0	1	28	6	1	4	0	40	45.1	0	0	21	3	0	0	0	24	24	0
16	17.3	0	0	0	0	0	0	0	0	0	0	0	7	2	1	0	0	10	10.5	0	0	1	1	0	0	0	2	2	0
14	15.3	0	0	0	0	0	0	0	0	0	0	0	5	1	0	2	0	8	10.6	0	0	10	0	0	0	0	10	10	0
15	18.1	0	0	0	0	0	0	0	0	0	0	0	6	1	1	0	0	8	8.5	0	0	3	0	0	0	0	3	3	0
16	16	0	0	0	0	0	0	0	0	0	0	0	10	1	1	0	0	12	12.5	0	0	6	1	0	0	0	7	7	0
61	66.7	0	0	0	0	0	0	0	0	0	0	0	28	5	3	2	0	38	42.1	0	0	20	2	0	0	0	22	22	0
17	20.9	0	0	0	0	0	0	0	0	0	0	0	4	1	0	1	0	6	7.3	0	0	2	0	0	0	0	2	2	0
21	25.9	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	7	0	0	0	0	7	7	0

10	10	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0
6	6.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
54	63.3	0	0	0	0	0	0	0	0	0	0	0	16	2	0	1	0	19	20.3	0	0	13	0	0	0	0	13	13	0
10	11.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
6	6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
15	17.6	0	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	7	8.3	0	0	4	0	0	0	0	4	4	0
4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0
35	39.4	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1	0	14	15.3	0	0	6	1	0	0	0	7	7	0
6	7.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4	0
7	8.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0
8	10.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0
2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0
23	28.2	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0	8	0	0	0	0	8	8	0
6	7.3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	4.3	0	0	1	0	0	0	0	1	1	0
1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	3	5.6	0	0	0	0	0	0	0	0	0	0
5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
14	17.9	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	6	9.9	0	0	2	0	0	0	0	2	2	0
1922	2287.7	0	0	2	0	0	0	0	2	2	0	2	411	147	35	80	4	679	803.3	0	1	281	70	19	9	4	384	408.6	0

D => B								D => C									D => D								
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
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0	5	0	1	1	0	7	8.8	0	0	9	4	0	3	0	16	19.9	0	0	0	0	0	0	0	0
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0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0
1	183	54	16	19	4	277	313.1	0	2	484	200	37	98	4	825	973.7	0	0	0	0	0	0	0	0

D => B								D => C									D => D							
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	1	1	0	0	0	2	2	0	0	8	6	1	2	0	17	20.1	0	0	0	0	0	0	0	0	0
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0	5	5	1	0	0	11	11.5	0	0	25	23	4	6	0	58	67.8	0	0	0	0	0	0	0	0	0
0	2	2	0	0	0	4	4	0	0	8	1	1	2	0	12	15.1	0	0	0	0	0	0	0	0	0
0	5	0	1	1	1	8	10.8	0	0	7	4	3	1	0	15	17.8	0	0	0	0	0	0	0	0	0
0	2	7	1	1	0	11	12.8	0	0	7	3	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0
0	6	3	0	1	0	10	11.3	0	0	7	3	0	0	0	10	10	0	0	0	0	0	0	0	0	0
0	15	12	2	3	1	33	38.9	0	0	29	11	5	4	0	49	56.7	0	0	0	0	0	0	0	0	0
0	10	1	0	0	0	11	11	0	0	7	7	2	1	0	17	19.3	0	0	0	0	0	0	0	0	0
0	2	1	0	0	0	3	3	0	0	9	3	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0
0	3	0	1	1	1	6	8.8	0	0	10	1	0	1	0	12	13.3	0	0	0	0	0	0	0	0	0
0	5	0	0	0	0	5	5	0	0	10	4	0	1	0	15	16.3	0	0	0	0	0	0	0	0	0
0	20	2	1	1	1	25	27.8	0	0	36	15	2	4	0	57	63.2	0	0	0	0	0	0	0	0	0
0	1	1	0	0	1	3	4	0	0	12	4	0	3	0	19	22.9	0	0	0	0	0	0	0	0	0
0	3	0	0	0	0	3	3	0	0	7	3	1	5	0	16	23	0	0	0	0	0	0	0	0	0
0	2	0	1	0	0	3	3.5	0	0	8	2	0	1	1	12	14.3	0	0	0	0	0	0	0	0	0
0	3	0	0	1	1	5	7.3	0	0	9	4	1	1	0	15	16.8	0	0	0	0	0	0	0	0	0
0	9	1	1	1	2	14	17.8	0	0	36	13	2	10	1	62	77	0	0	0	0	0	0	0	0	0
0	2	1	2	1	0	6	8.3	0	0	9	2	2	3	0	16	20.9	0	0	0	0	0	0	0	0	0
0	2	0	0	1	0	3	4.3	0	0	10	2	1	1	0	14	15.8	0	0	0	0	0	0	0	0	0
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0	7	2	2	2	0	13	16.6	0	0	30	8	5	6	0	49	59.3	0	0	0	0	0	0	0	0	0
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0	2	0	0	0	0	2	2	0	0	5	1	1	2	0	9	12.1	0	0	0	0	0	0	0	0	0
0	1	2	0	0	0	3	3	0	0	8	4	1	3	0	16	20.4	0	0	0	0	0	0	0	0	0
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0	9	3	1	0	0	13	13.5	0	0	26	7	3	11	0	47	62.8	0	0	0	0	0	0	0	0	0

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0	5	0	1	1	0	7	8.8	0	0	1	1	1	4	0	7	12.7	0	0	0	0	0	0	0	0
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0	10	2	0	0	0	12	12	0	1	32	11	3	10	0	57	70.9	0	0	0	0	0	0	0	0
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0	3	2	0	2	0	7	9.6	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0
0	13	4	2	2	0	21	24.6	0	0	29	5	1	3	2	40	46.4	0	0	0	0	0	0	0	0
0	3	0	0	1	0	4	5.3	0	0	5	2	0	4	0	11	16.2	0	0	0	0	0	0	0	0
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0	1	0	0	0	0	1	1	0	0	13	2	0	2	0	17	19.6	0	0	0	0	0	0	0	0
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0	6	1	0	0	0	7	7	0	0	47	7	1	3	0	58	62.4	0	0	0	0	0	0	0	0
0	6	1	0	0	0	7	7	0	1	10	3	0	0	0	14	13.4	0	0	0	0	0	0	0	0
0	0	1	1	1	0	3	4.8	0	0	7	2	0	1	0	10	11.3	0	0	0	0	0	0	0	0
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0	7	2	1	1	0	11	12.8	0	1	33	6	0	1	0	41	41.7	0	0	0	0	0	0	0	0
0	1	0	1	0	0	2	2.5	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0
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0	11	0	2	2	0	15	18.6	0	0	13	3	0	0	0	16	16	0	0	0	0	0	0	0	0
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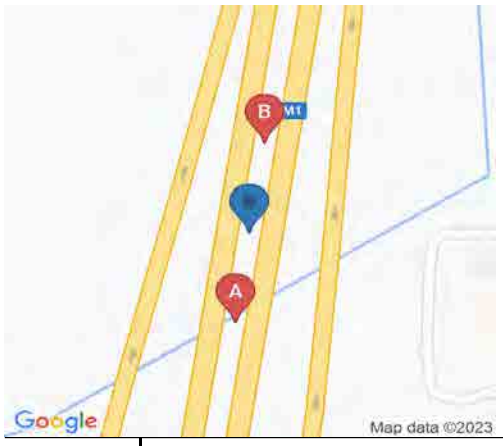
0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	5	6.3	0	0	0	0	0	0	0	0
0	170	45	15	19	5	254	291.2	0	3	505	161	38	87	3	797	930.3	0	0	0	0	0	0	0	0



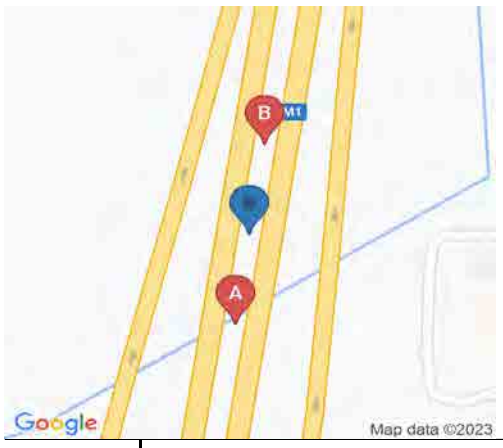
IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Link 5&6
Location: M1
Date: Tue 10-Oct-2023

	A => B (Northbound)									B => A (Southbound)								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	55	5	0	4	2	66	73.2	0	0	23	4	1	7	0	35	44.6
00:15	0	0	62	5	5	5	1	78	88	0	0	27	0	2	4	0	33	39.2
00:30	0	2	50	7	2	7	2	70	80.9	0	0	23	3	4	5	0	35	43.5
00:45	0	0	46	1	1	7	0	55	64.6	0	1	9	2	2	6	0	20	28.2
H/TOT	0	2	213	18	8	23	5	269	306.7	0	1	82	9	9	22	0	123	155.5
01:00	0	0	55	5	1	3	0	64	68.4	0	0	15	1	3	5	1	25	34
01:15	0	0	38	3	1	10	0	52	65.5	0	0	13	0	2	2	0	17	20.6
01:30	0	0	37	1	0	8	1	47	58.4	0	0	11	2	2	2	0	17	20.6
01:45	0	0	45	4	0	4	0	53	58.2	0	0	17	1	0	6	0	24	31.8
H/TOT	0	0	175	13	2	25	1	216	250.5	0	0	56	4	7	15	1	83	107
02:00	0	0	38	2	1	6	2	49	59.3	0	0	13	0	2	4	0	19	25.2
02:15	0	0	32	1	2	2	0	37	40.6	0	0	11	0	3	2	0	16	20.1
02:30	0	0	27	0	1	9	0	37	49.2	0	0	21	4	2	2	0	29	32.6
02:45	0	0	24	1	2	10	0	37	51	0	0	17	3	2	4	0	26	32.2
H/TOT	0	0	121	4	6	27	2	160	200.1	0	0	62	7	9	12	0	90	110.1
03:00	0	0	17	3	1	5	0	26	33	0	0	34	0	1	5	1	41	49
03:15	0	0	14	1	1	7	0	23	32.6	0	0	46	0	2	8	1	57	69.4
03:30	0	0	21	6	0	5	1	33	40.5	0	0	73	0	2	4	1	80	87.2
03:45	0	0	17	3	0	7	0	27	36.1	0	0	53	1	1	8	0	63	73.9
H/TOT	0	0	69	13	2	24	1	109	142.2	0	0	206	1	6	25	3	241	279.5
04:00	0	0	18	6	1	9	1	35	48.2	0	0	65	3	2	2	0	72	75.6
04:15	0	0	22	3	2	9	1	37	50.7	0	0	102	2	3	7	1	115	126.6
04:30	0	0	24	7	3	12	1	47	65.1	0	0	90	6	1	15	0	112	132
04:45	0	1	37	4	3	8	2	55	68.3	0	0	125	2	7	17	0	151	176.6
H/TOT	0	1	101	20	9	38	5	174	232.3	0	0	382	13	13	41	1	450	510.8
05:00	0	0	27	10	3	13	0	53	71.4	0	0	139	1	6	12	2	160	180.6
05:15	0	0	40	4	6	22	1	73	105.6	0	0	207	2	2	33	1	245	289.9
05:30	0	1	57	6	4	16	1	85	108.2	0	0	293	9	5	31	1	339	382.8
05:45	0	0	64	12	3	22	1	102	133.1	0	0	390	10	8	32	1	441	487.6
H/TOT	0	1	188	32	16	73	3	313	418.3	0	0	1029	22	21	108	5	1185	1340.9
06:00	0	1	63	18	8	27	1	118	157.5	0	0	534	103	16	33	5	691	746.9
06:15	0	0	93	22	6	17	1	139	165.1	0	0	665	123	17	32	2	839	891.1
06:30	0	1	90	24	6	19	1	141	169.1	0	0	683	116	12	23	1	835	871.9
06:45	0	2	121	32	12	22	1	190	224.4	0	1	559	121	16	29	1	727	773.1
H/TOT	0	4	367	96	32	85	4	588	716.1	0	1	2441	463	61	117	9	3092	3283
07:00	0	2	122	30	13	37	7	211	271.4	0	0	596	86	22	27	3	734	783.1
07:15	0	0	206	35	10	33	1	285	333.9	0	1	569	119	16	22	4	731	771
07:30	0	0	251	53	22	41	6	373	443.3	0	3	563	102	23	15	4	710	743.2
07:45	0	0	287	45	16	32	2	382	433.6	0	4	526	102	16	22	9	679	722.2
H/TOT	0	2	866	163	61	143	16	1251	1482.2	0	8	2254	409	77	86	20	2854	3019.5
08:00	0	0	253	31	10	36	2	332	385.8	0	6	540	91	15	34	10	696	754.1
08:15	0	0	291	47	7	28	1	374	414.9	0	4	617	98	28	32	5	784	842.2
08:30	0	0	245	37	6	30	5	323	370	0	4	625	95	14	30	4	772	819.6
08:45	0	0	218	42	13	23	2	298	336.4	0	2	415	77	22	25	6	547	595.3
H/TOT	0	0	1007	157	36	117	10	1327	1507.1	0	16	2197	361	79	121	25	2799	3011.2
09:00	0	0	202	50	12	25	4	293	335.5	0	3	461	70	22	29	2	587	635.9
09:15	0	0	194	51	13	24	1	283	321.7	0	2	475	77	16	28	4	602	649.2
09:30	0	0	216	38	10	30	2	296	342	0	3	412	75	12	24	2	528	565.4
09:45	0	1	195	40	11	23	6	276	316.8	0	2	319	64	11	38	4	438	495.7

H/TOT	0	1	807	179	46	102	13	1148	1316	0	10	1667	286	61	119	12	2155	2346.2
10:00	0	0	212	42	10	42	10	316	385.6	0	3	297	57	17	29	6	409	459.4
10:15	0	0	207	53	23	33	4	320	378.4	0	1	309	70	24	37	4	445	508.5
10:30	0	1	199	45	13	33	5	296	349.8	0	1	301	68	17	39	2	428	488.6
10:45	0	1	203	34	21	40	0	299	360.9	0	0	268	46	22	24	1	361	404.2
H/TOT	0	2	821	174	67	148	19	1231	1474.7	0	5	1175	241	80	129	13	1643	1860.7
11:00	0	1	203	22	15	34	3	278	332.1	0	0	272	42	14	36	6	370	429.8
11:15	0	0	196	48	9	40	3	296	355.5	0	0	258	50	31	38	1	378	443.9
11:30	0	2	198	38	21	48	3	310	384.7	0	1	272	43	18	36	4	374	433.2
11:45	0	0	218	33	15	43	4	313	380.4	0	1	264	52	18	42	2	379	444
H/TOT	0	3	815	141	60	165	13	1197	1452.7	0	2	1066	187	81	152	13	1501	1750.9
12:00	0	0	237	40	18	40	4	339	404	0	1	258	46	12	29	5	351	399.1
12:15	0	0	243	43	18	34	1	339	393.2	0	1	276	39	23	36	2	377	436.7
12:30	0	3	288	58	15	40	4	408	469.7	0	1	290	38	14	39	4	386	447.1
12:45	0	0	286	56	14	34	2	392	445.2	0	1	258	41	19	33	2	354	407.8
H/TOT	0	3	1054	197	65	148	11	1478	1712.1	0	4	1082	164	68	137	13	1468	1690.7
13:00	0	0	285	65	13	45	6	414	485	0	0	269	45	18	50	4	386	464
13:15	0	0	314	42	22	44	2	424	494.2	0	1	262	42	18	39	0	362	421.1
13:30	0	0	288	62	21	37	4	412	474.6	0	0	266	42	20	25	3	356	401.5
13:45	0	0	280	52	25	33	2	392	449.4	0	0	239	42	13	43	5	342	409.4
H/TOT	0	0	1167	221	81	159	14	1642	1903.2	0	1	1036	171	69	157	12	1446	1696
14:00	0	1	292	74	19	32	3	421	474.5	0	3	246	36	16	38	2	341	398.6
14:15	0	0	322	87	19	30	0	458	506.5	0	0	259	46	14	26	3	348	391.8
14:30	0	0	327	80	23	34	4	468	527.7	0	1	236	49	13	39	3	341	400.6
14:45	0	1	344	76	24	37	2	484	545.5	0	0	217	28	16	25	4	290	334.5
H/TOT	0	2	1285	317	85	133	9	1831	2054.2	0	4	958	159	59	128	12	1320	1525.5
15:00	0	1	408	101	15	40	4	569	631.9	0	0	239	49	15	23	1	327	365.4
15:15	0	3	439	113	16	36	3	610	666	0	0	277	64	19	38	4	402	464.9
15:30	0	0	476	146	12	33	1	668	717.9	0	1	260	51	14	25	4	355	397.9
15:45	0	4	547	179	17	37	4	788	846.2	0	1	281	39	15	26	3	365	408.7
H/TOT	0	8	1870	539	60	146	12	2635	2862	0	2	1057	203	63	112	12	1449	1636.9
16:00	0	4	560	172	23	31	5	795	849.4	0	3	260	33	10	23	5	334	372.1
16:15	0	2	592	184	20	38	3	839	900.2	0	1	265	51	7	26	4	354	394.7
16:30	0	3	612	201	14	26	5	861	905	0	0	287	44	5	17	5	358	387.6
16:45	0	1	549	144	15	27	4	740	786	0	0	262	48	7	20	3	340	372.5
H/TOT	0	10	2313	701	72	122	17	3235	3440.6	0	4	1074	176	29	86	17	1386	1526.9
17:00	0	5	658	160	10	24	6	863	902.2	0	2	286	29	12	17	5	351	382.9
17:15	0	2	690	133	4	27	3	859	897.9	0	1	293	30	7	24	4	359	397.1
17:30	0	3	639	103	13	16	4	778	807.5	0	1	291	37	3	21	2	355	385.2
17:45	0	5	634	101	10	25	4	779	817.5	0	0	275	28	5	20	3	331	362.5
H/TOT	0	15	2621	497	37	92	17	3279	3425.1	0	4	1145	124	27	82	14	1396	1527.7
18:00	0	7	637	110	10	18	8	790	822.2	0	1	263	31	4	21	3	323	354.7
18:15	0	3	583	81	9	18	4	698	728.1	0	0	275	18	3	10	2	308	324.5
18:30	0	4	485	74	11	16	10	600	633.9	0	0	251	29	4	23	3	310	344.9
18:45	0	2	412	62	5	20	6	507	540.3	0	0	231	27	4	16	4	282	308.8
H/TOT	0	16	2117	327	35	72	28	2595	2724.5	0	1	1020	105	15	70	12	1223	1332.9
19:00	0	1	384	41	8	20	4	458	491.4	0	0	194	16	9	26	5	250	293.3
19:15	0	1	403	44	2	12	0	462	478	0	0	184	12	8	16	2	222	248.8
19:30	0	0	329	34	10	12	2	387	409.6	0	0	193	15	5	21	1	235	265.8
19:45	0	0	276	22	3	11	3	315	333.8	0	0	150	7	4	12	0	173	190.6
H/TOT	0	2	1392	141	23	55	9	1622	1712.8	0	0	721	50	26	75	8	880	998.5
20:00	0	2	265	21	5	13	1	307	326.2	0	0	138	11	6	8	1	164	178.4
20:15	0	2	278	22	3	6	3	314	325.1	0	0	123	11	2	5	1	142	150.5
20:30	0	0	238	16	3	13	5	275	298.4	0	0	128	8	6	10	0	152	168
20:45	0	1	208	16	8	7	0	240	252.5	0	0	101	8	5	15	4	133	159
H/TOT	0	5	989	75	19	39	9	1136	1202.2	0	0	490	38	19	38	6	591	655.9
21:00	0	0	207	14	9	11	1	242	261.8	0	0	97	2	1	15	0	115	135
21:15	0	0	207	9	2	6	1	225	234.8	0	0	89	5	1	10	0	105	118.5
21:30	0	1	164	13	3	10	4	195	212.9	0	0	110	3	3	8	0	124	135.9
21:45	0	0	134	10	1	7	1	153	163.6	0	0	77	5	1	12	0	95	111.1
H/TOT	0	1	712	46	15	34	7	815	873.1	0	0	373	15	6	45	0	439	500.5
22:00	0	0	130	9	0	5	2	146	154.5	0	0	78	2	3	10	1	94	109.5
22:15	0	1	161	6	2	7	1	178	188.5	0	0	73	3	2	6	0	84	92.8

22:30	0	0	118	6	4	3	2	133	140.9	0	0	67	4	3	7	1	82	93.6
22:45	0	0	119	5	6	13	1	144	164.9	0	1	66	2	1	9	1	80	92.6
H/TOT	0	1	528	26	12	28	6	601	648.8	0	1	284	11	9	32	3	340	388.5
23:00	0	0	105	2	0	12	2	121	138.6	0	0	53	12	1	8	0	74	84.9
23:15	0	0	106	7	0	6	0	119	126.8	0	0	56	2	1	8	0	67	77.9
23:30	0	0	83	4	1	11	5	104	123.8	0	0	32	2	1	8	0	43	53.9
23:45	0	0	76	4	3	7	1	91	102.6	0	0	30	1	0	7	0	38	47.1
H/TOT	0	0	370	17	4	36	8	435	491.8	0	0	171	17	3	31	0	222	263.8
24 TOT	0	79	21968	4114	853	2034	239	29287	32549	0	64	22028	3236	897	1940	211	28376	31519



IDASO

Survey Name: 304 23457 - M1 Motorway
Site: Link 5&6
Location: M1
Date: Wed 11-Oct-2023

	A => B (Northbound)									B => A (Southbound)								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
00:00	0	0	59	8	2	8	2	79	92.4	0	0	27	1	0	8	0	36	46.4
00:15	0	0	63	10	2	7	1	83	94.1	0	0	27	2	0	9	0	38	49.7
00:30	0	0	49	8	1	3	2	63	69.4	0	0	19	3	1	9	0	32	44.2
00:45	0	1	52	2	1	7	0	63	72	0	0	16	3	1	5	1	26	34
H/TOT	0	1	223	28	6	25	5	288	327.9	0	0	89	9	2	31	1	132	174.3
01:00	0	0	42	3	1	3	0	49	53.4	0	1	19	1	2	12	1	36	53
01:15	0	0	40	6	1	8	1	56	67.9	0	0	14	0	1	4	0	19	24.7
01:30	0	1	34	1	3	3	1	43	48.8	0	0	10	2	0	4	0	16	21.2
01:45	0	0	43	5	1	5	0	54	61	0	0	12	1	0	4	0	17	22.2
H/TOT	0	1	159	15	6	19	2	202	231.1	0	1	55	4	3	24	1	88	121.1
02:00	0	0	38	2	2	6	1	49	58.8	0	0	16	1	1	3	0	21	25.4
02:15	0	0	32	1	3	1	0	37	39.8	0	0	23	1	0	3	0	27	30.9
02:30	0	0	26	2	4	6	0	38	47.8	0	0	21	0	1	0	0	22	22.5
02:45	0	0	24	3	4	8	0	39	51.4	0	1	29	4	0	4	0	38	42.6
H/TOT	0	0	120	8	13	21	1	163	197.8	0	1	89	6	2	10	0	108	121.4
03:00	0	0	11	3	1	5	0	20	27	0	0	32	4	1	5	1	43	51
03:15	0	0	14	2	1	3	0	20	24.4	0	0	37	2	3	10	0	52	66.5
03:30	0	0	18	4	1	4	1	28	34.7	0	0	53	6	1	4	0	64	69.7
03:45	0	0	18	5	4	4	1	32	40.2	0	0	57	3	1	3	0	64	68.4
H/TOT	0	0	61	14	7	16	2	100	126.3	0	0	179	15	6	22	1	223	255.6
04:00	0	0	21	2	1	7	1	32	42.6	0	0	55	8	1	10	0	74	87.5
04:15	0	0	21	4	5	7	0	37	48.6	0	0	90	2	5	13	1	111	131.4
04:30	0	0	35	7	3	9	1	55	69.2	0	0	79	7	2	13	1	102	120.9
04:45	0	0	24	4	2	8	1	39	51.4	0	0	117	8	2	13	0	140	157.9
H/TOT	0	0	101	17	11	31	3	163	211.8	0	0	341	25	10	49	2	427	497.7
05:00	0	0	23	9	4	13	1	50	69.9	0	0	134	15	3	18	1	171	196.9
05:15	0	0	40	5	4	10	0	59	74	0	3	201	15	5	27	1	252	288.8
05:30	0	0	41	6	4	14	1	66	87.2	0	0	264	19	10	24	0	317	353.2
05:45	0	0	59	15	6	17	0	97	122.1	0	0	350	34	15	33	0	432	482.4
H/TOT	0	0	163	35	18	54	2	272	353.2	0	3	949	83	33	102	2	1172	1321.3
06:00	0	0	77	14	5	25	1	122	158	0	1	543	74	13	33	1	665	714.8
06:15	0	0	94	26	7	19	1	147	176.2	0	0	637	95	16	34	1	783	836.2
06:30	1	0	93	26	15	20	1	156	189.7	0	0	639	110	13	22	1	785	821.1
06:45	0	0	134	42	4	30	2	212	255	0	0	565	118	18	34	1	736	790.2
H/TOT	1	0	398	108	31	94	5	637	778.9	0	1	2384	397	60	123	4	2969	3162.3
07:00	0	1	126	39	11	29	3	209	254.6	0	1	597	91	17	25	2	733	775.4
07:15	0	1	152	43	10	26	1	233	272.2	0	1	587	113	17	20	4	742	779.9
07:30	0	2	229	46	13	36	6	332	390.1	0	2	391	73	11	17	2	496	524.4
07:45	0	1	231	53	11	29	4	329	375.6	0	5	527	93	11	20	5	661	694.5

H/TOT	0	5	738	181	45	120	14	1103	1292.5	0	9	2102	370	56	82	13	2632	2774.2
08:00	0	1	264	45	15	20	4	349	385.9	0	3	614	105	17	21	8	768	810
08:15	0	0	253	36	12	18	3	322	354.4	0	2	493	88	13	22	4	621	658.4
08:30	0	0	232	39	7	36	7	321	378.3	0	4	578	89	29	28	3	731	782.5
08:45	0	0	225	48	10	24	1	308	345.2	0	1	449	87	18	31	4	590	642.7
H/TOT	0	1	974	168	44	98	15	1300	1463.8	0	10	2134	369	76	102	19	2710	2893.6
09:00	0	0	193	38	11	26	4	272	315.3	0	2	463	64	13	34	3	579	631.5
09:15	0	0	210	46	10	25	6	297	340.5	0	1	435	82	12	19	3	552	585.1
09:30	0	0	184	43	7	15	3	252	278	0	0	415	65	19	28	4	531	580.9
09:45	0	0	203	48	11	30	3	295	342.5	0	1	364	56	19	27	3	470	517
H/TOT	0	0	790	175	39	96	16	1116	1276.3	0	4	1677	267	63	108	13	2132	2314.5
10:00	0	0	168	37	12	26	5	248	292.8	0	1	345	69	10	29	6	460	508.1
10:15	0	1	177	34	16	35	8	271	331.9	0	2	260	53	18	32	3	368	420.4
10:30	0	0	189	47	10	26	6	278	322.8	0	2	333	53	24	26	4	442	490.6
10:45	0	0	200	46	13	24	1	284	322.7	0	1	268	52	15	29	2	367	413.6
H/TOT	0	1	734	164	51	111	20	1081	1270.2	0	6	1206	227	67	116	15	1637	1832.7
11:00	0	0	217	45	16	39	3	320	381.7	0	1	270	57	22	32	7	389	448
11:15	0	1	209	40	19	31	1	301	351.2	0	0	282	45	25	28	2	382	432.9
11:30	0	1	234	48	14	42	6	345	412	0	0	273	49	13	19	7	361	399.2
11:45	0	0	209	45	23	45	3	325	398	0	0	259	50	19	29	2	359	408.2
H/TOT	0	2	869	178	72	157	13	1291	1542.9	0	1	1084	201	79	108	18	1491	1688.3
12:00	0	0	258	57	15	38	3	371	430.9	0	0	274	40	14	26	3	357	400.8
12:15	0	2	280	59	22	37	4	404	465.9	0	2	265	37	15	35	2	356	409.8
12:30	0	0	288	60	16	30	4	398	449	0	0	282	47	13	44	2	388	453.7
12:45	0	0	300	57	13	22	1	393	429.1	0	1	240	32	13	33	3	322	373.8
H/TOT	0	2	1126	233	66	127	12	1566	1774.9	0	3	1061	156	55	138	10	1423	1638.1
13:00	0	0	281	51	19	36	4	391	451.3	0	0	232	40	17	36	5	330	390.3
13:15	0	1	332	59	21	33	4	450	506.8	0	0	299	43	13	21	0	376	409.8
13:30	0	1	326	62	19	40	3	451	514.9	0	1	263	45	17	28	1	355	400.3
13:45	0	1	327	62	22	32	1	445	498	0	1	262	38	15	38	8	362	426.3
H/TOT	0	3	1266	234	81	141	12	1737	1971	0	2	1056	166	62	123	14	1423	1626.7
14:00	0	0	339	76	24	29	3	471	523.7	0	0	250	36	20	27	2	335	382.1
14:15	0	0	355	66	20	31	2	474	526.3	0	0	250	46	22	43	5	366	437.9
14:30	0	1	361	61	16	33	3	475	528.3	0	2	228	41	19	25	1	316	357.8
14:45	0	0	384	89	18	33	5	529	585.9	0	0	252	41	19	30	5	347	400.5
H/TOT	0	1	1439	292	78	126	13	1949	2164.2	0	2	980	164	80	125	13	1364	1578.3
15:00	0	1	405	85	17	42	3	553	618.5	0	0	257	47	11	20	0	335	366.5
15:15	0	1	474	125	17	41	2	660	723.2	0	0	255	64	17	25	5	366	412
15:30	0	3	507	153	13	33	3	712	762.6	0	1	252	59	13	20	4	349	384.9
15:45	0	1	581	165	22	25	4	798	844.9	0	2	286	44	10	26	4	372	413.6
H/TOT	0	6	1967	528	69	141	12	2723	2949.2	0	3	1050	214	51	91	13	1422	1577
16:00	0	1	547	185	21	30	3	787	838.9	0	1	277	55	12	21	5	371	408.7
16:15	0	2	626	197	18	27	2	872	916.9	0	0	273	60	14	24	4	375	417.2
16:30	0	1	645	178	13	26	6	869	914.7	0	0	293	41	11	25	6	376	420
16:45	0	6	638	179	20	24	3	870	910.6	0	0	278	52	7	17	3	357	385.6
H/TOT	0	10	2456	739	72	107	14	3398	3581.1	0	1	1121	208	44	87	18	1479	1631.5
17:00	0	3	653	136	17	27	4	840	885.8	0	1	265	35	9	20	4	334	367.9
17:15	0	0	674	119	14	37	4	848	907.1	0	1	313	27	2	20	5	368	399.4
17:30	0	5	750	136	11	12	4	918	940.1	0	1	284	40	6	13	7	351	377.3
17:45	0	4	603	99	12	25	3	746	785.1	0	0	288	22	11	21	5	347	384.8
H/TOT	0	12	2680	490	54	101	15	3352	3518.1	0	3	1150	124	28	74	21	1400	1529.4
18:00	0	2	583	94	11	16	8	714	747.1	0	0	295	32	6	20	2	355	386
18:15	0	5	525	61	9	20	9	629	665.5	0	0	306	34	5	14	4	363	387.7
18:30	0	1	560	53	14	11	8	647	675.7	0	0	269	27	4	17	4	321	349.1
18:45	0	0	434	68	14	14	6	536	567.2	0	0	249	14	7	12	3	285	307.1
H/TOT	0	8	2102	276	48	61	31	2526	2655.5	0	0	1119	107	22	63	13	1324	1429.9
19:00	0	3	421	44	4	13	3	488	508.1	0	0	227	15	8	15	2	267	292.5
19:15	0	0	435	43	3	9	2	492	507.2	0	0	207	10	8	16	1	242	267.8
19:30	0	2	379	36	5	4	3	429	438.5	0	1	175	8	5	18	1	208	234.3
19:45	0	0	337	39	8	6	1	391	403.8	0	1	156	11	8	10	0	186	202.4
H/TOT	0	5	1572	162	20	32	9	1800	1857.6	0	2	765	44	29	59	4	903	997
20:00	0	0	267	21	4	11	5	308	329.3	0	0	153	4	3	14	0	174	193.7
20:15	0	0	290	28	5	7	3	333	347.6	0	0	160	11	10	8	0	189	204.4

20:30	0	1	265	21	1	7	4	299	312	0	0	121	7	6	2	0	136	141.6
20:45	0	0	243	22	5	13	1	284	304.4	0	0	110	10	12	10	0	142	161
H / TOT	0	1	1065	92	15	38	13	1224	1293.3	0	0	544	32	31	34	0	641	700.7
21:00	0	0	196	17	2	10	2	227	243	0	0	106	5	12	5	0	128	140.5
21:15	0	1	247	13	4	12	3	280	300	0	0	81	3	9	5	0	98	109
21:30	0	0	203	13	2	8	3	229	243.4	0	0	99	5	8	4	0	116	125.2
21:45	0	2	134	10	3	9	1	159	172	0	0	79	7	3	3	0	92	97.4
H / TOT	0	3	780	53	11	39	9	895	958.4	0	0	365	20	32	17	0	434	472.1
22:00	0	0	155	13	1	4	2	175	182.7	0	0	72	4	6	5	0	87	96.5
22:15	0	0	150	9	2	10	1	172	187	0	0	70	3	4	5	0	82	90.5
22:30	0	0	175	17	1	10	4	207	224.5	0	0	61	3	1	6	0	71	79.3
22:45	0	0	125	9	0	8	2	144	156.4	0	0	59	5	5	3	0	72	78.4
H / TOT	0	0	605	48	4	32	9	698	750.6	0	0	262	15	16	19	0	312	344.7
23:00	0	0	110	8	1	5	1	125	133	0	0	59	10	3	4	0	76	82.7
23:15	0	1	109	9	4	5	0	128	135.9	0	0	43	1	5	5	0	54	63
23:30	0	0	75	4	1	6	3	89	100.3	0	0	36	4	4	3	0	47	52.9
23:45	0	0	78	3	0	3	2	86	91.9	0	0	35	1	5	2	0	43	48.1
H / TOT	0	1	372	24	6	19	6	428	461.1	0	0	173	16	17	14	0	220	246.7
24 TOT	1	63	22760	4262	867	1806	253	30012	33008	0	52	21935	3239	924	1721	195	28066	30929

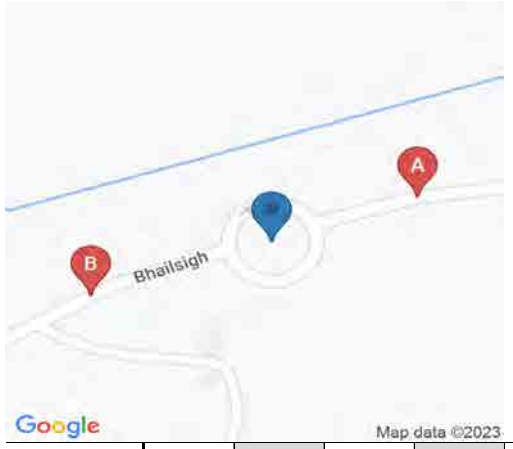
Data Analysis Services
Traffic-Transportation- Commercial-Innovation

304 23457 - M1 Motorway Pedestrian

with compliments

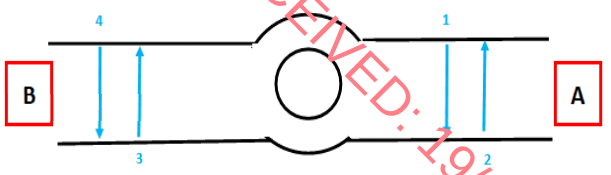
IDASO

Survey Name: 304 23457 - M1 Motorway Pedestrian
Date: Tue 10 Oct 2023 — Wed 11 Oct 2023



IDASO

Survey Name: 304 23457 - M1 Motorway Pedestrian
Site: Site 1
Location: L1140 (E/W)/Future Site Access (N)/Futur
Date: Tue 10-Oct-2023

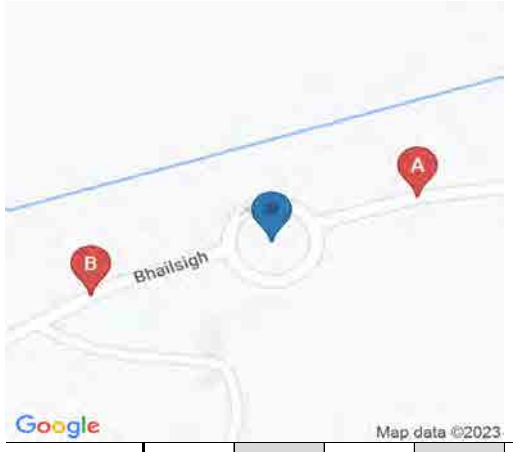


TIME	MVT 1 PEDS	TOT	MVT 2 PEDS	TOT	MVT 3 PEDS	TOT	MVT 4 PEDS	TOT
00:00	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0

04:00	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0

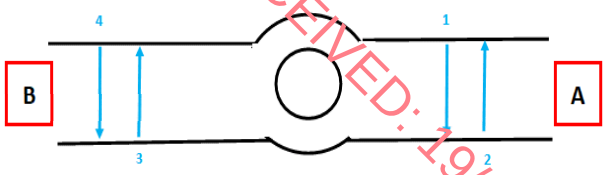
H/TOT	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0
11:30	1	1	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0
12:30	1	1	0	0	1	1	0	0
12:45	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	1	1	0	0
13:00	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0

17:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
24 TOT	2	2	0	0	1	1	0	0



IDASO

Survey Name: 304 23457 - M1 Motorway Pedestrian
Site: Site 1
Location: L1140 (E/W)/Future Site Access (N)/Futur
Date: Tue 11-Oct-2023



TIME	MVT 1 PEDS	TOT	MVT 2 PEDS	TOT	MVT 3 PEDS	TOT	MVT 4 PEDS	TOT
00:00	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0

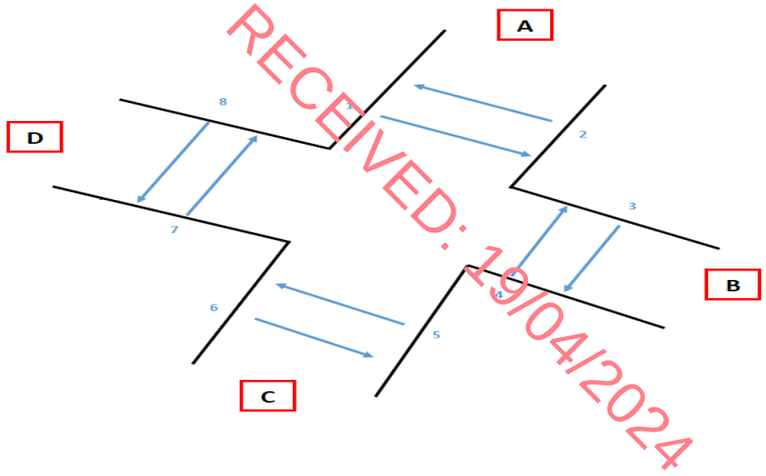
04:00	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0

H/TOT	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0

17:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0

IDASO

Survey Name: 304 23457 - M1 Motorway Pedestrian
Site: Site 4
Location: L1140 (SW)/R132 (NE/SE)/Access Road to Applegreen Petrol
Date: Tue 10-Oct-2023



TIME	MVT 1 PEDS	TOT	MVT 2 PEDS	TOT	MVT 3 PEDS	TOT	MVT 4 PEDS	TOT	MVT 5 PEDS	TOT	MVT 6 PEDS	TOT	MVT 7 PEDS	TOT	MVT 8 PEDS	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

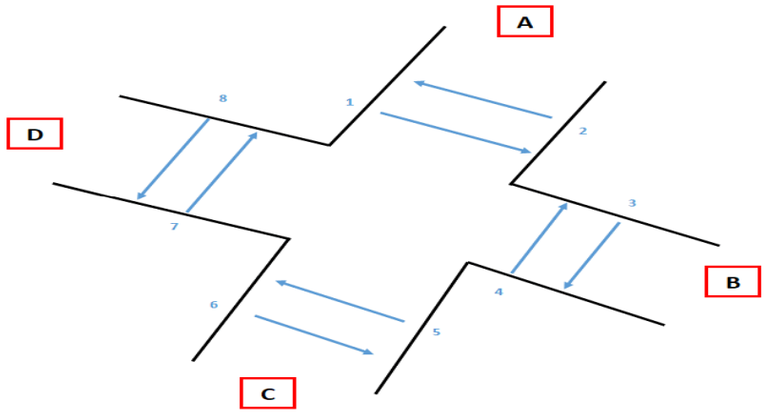
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
12:45	1	1	1	1	0	0	0	0	0	0	0	0	1	1	2	2
H / TOT	1	1	2	2	0	0	0	0	0	0	0	0	1	1	3	3
13:00	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0

13:45	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	3	3	2	2	0	0	0	0	0	0	0	0	1	1	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
16:45	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1
H / TOT	0	0	2	2	0	0	0	0	0	0	0	0	3	3	2	2
17:00	0	0	3	3	0	0	0	0	0	0	0	0	1	1	1	1
17:15	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	5	5	0	0	0	0	0	0	0	0	1	1	1	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	13	13	14	14	0	0	0	0	1	1	0	0	8	8	12	12

IDASO

Survey Name: 304 23457 - M1 Motorway Pedestrian
Site: Site 4
Location: L1140 (SW)/R132 (NE/SE)/Access Road to Applegreen Petrol
Date: Wed 11-Oct-2023



TIME	MVT 1 PEDS	TOT	MVT 2 PEDS	TOT	MVT 3 PEDS	TOT	MVT 4 PEDS	TOT	MVT 5 PEDS	TOT	MVT 6 PEDS	TOT	MVT 7 PEDS	TOT	MVT 8 PEDS	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
H / TOT	2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	2	2	1	1	0	0	0	0	0	0	0	0	0	1	1	
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	2	2	1	1	0	0	0	0	0	0	0	0	0	1	1	
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
13:00	1	1	2	2	0	0	0	0	0	0	0	0	1	1	1	1
13:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2
13:30	0	0	1	1	0	0	0	0	0	0	0	0	2	2	0	0
13:45	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	3	3	3	3	0	0	0	0	0	0	0	0	3	3	3	3
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	2	2	0	0	0	0	0	0	0	0	2	2	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	2	2	0	0	0	0	0	0	0	0	2	2	0	0
16:00	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:15	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	2	2	0	0	0	0	0	0	0	0	1	1	1	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H / TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	10	10	9	9	0	0	0	0	0	0	0	0	10	10	9	9

Appendix B – TRICS Output Report

Calculation Reference: AUDIT-441201-231109-1105

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	HD	HILLINGDON	1 days
02	SOUTH EAST		
	EX	ESSEX	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	6560 to 8673 (units: sqm)
Range Selected by User:	2759 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 27/09/18

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

Selected survey days:

Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	2

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

Inclusion of Servicing Vehicles Counts:

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

Secondary Filtering selection:

Use Class:

n/a	1 days
B8	1 days

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

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000	1 days
20,001 to 25,000	1 days

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

Population within 5 miles:

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

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

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

Travel Plan:

Yes	1 days
No	1 days

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

PTAL Rating:

No PTAL Present	1 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1 EX-02-F-01 SPORTS SUPPLEMENTS ESSEX
BRUNEL WAY
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 6560 sqm
Survey date: FRIDAY *18/05/18* *Survey Type: MANUAL*

2 HD-02-F-01 FOOD DISTRIBUTOR HILLINGDON
NINE ACRES CLOSE
HAYES

Edge of Town
Industrial Zone
Total Gross floor area: 8673 sqm
Survey date: THURSDAY *27/09/18* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.47

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	2	7617	0.020	2	7617	0.013	2	7617	0.033
07:30 - 08:00	2	7617	0.151	2	7617	0.059	2	7617	0.210
08:00 - 08:30	2	7617	0.092	2	7617	0.039	2	7617	0.131
08:30 - 09:00	2	7617	0.184	2	7617	0.092	2	7617	0.276
09:00 - 09:30	2	7617	0.204	2	7617	0.092	2	7617	0.296
09:30 - 10:00	2	7617	0.144	2	7617	0.118	2	7617	0.262
10:00 - 10:30	2	7617	0.125	2	7617	0.059	2	7617	0.184
10:30 - 11:00	2	7617	0.105	2	7617	0.190	2	7617	0.295
11:00 - 11:30	2	7617	0.118	2	7617	0.144	2	7617	0.262
11:30 - 12:00	2	7617	0.223	2	7617	0.223	2	7617	0.446
12:00 - 12:30	2	7617	0.177	2	7617	0.236	2	7617	0.413
12:30 - 13:00	2	7617	0.190	2	7617	0.092	2	7617	0.282
13:00 - 13:30	2	7617	0.098	2	7617	0.079	2	7617	0.177
13:30 - 14:00	2	7617	0.105	2	7617	0.098	2	7617	0.203
14:00 - 14:30	2	7617	0.085	2	7617	0.190	2	7617	0.275
14:30 - 15:00	2	7617	0.105	2	7617	0.105	2	7617	0.210
15:00 - 15:30	2	7617	0.092	2	7617	0.118	2	7617	0.210
15:30 - 16:00	2	7617	0.066	2	7617	0.079	2	7617	0.145
16:00 - 16:30	2	7617	0.105	2	7617	0.098	2	7617	0.203
16:30 - 17:00	2	7617	0.085	2	7617	0.085	2	7617	0.170
17:00 - 17:30	2	7617	0.046	2	7617	0.151	2	7617	0.197
17:30 - 18:00	2	7617	0.085	2	7617	0.158	2	7617	0.243
18:00 - 18:30	2	7617	0.039	2	7617	0.190	2	7617	0.229
18:30 - 19:00	2	7617	0.066	2	7617	0.092	2	7617	0.158
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.710			2.800			5.510

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

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

Parameter summary

Trip rate parameter range selected:	6560 - 8673 (units: sqm)
Survey date date range:	01/01/15 - 27/09/18
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

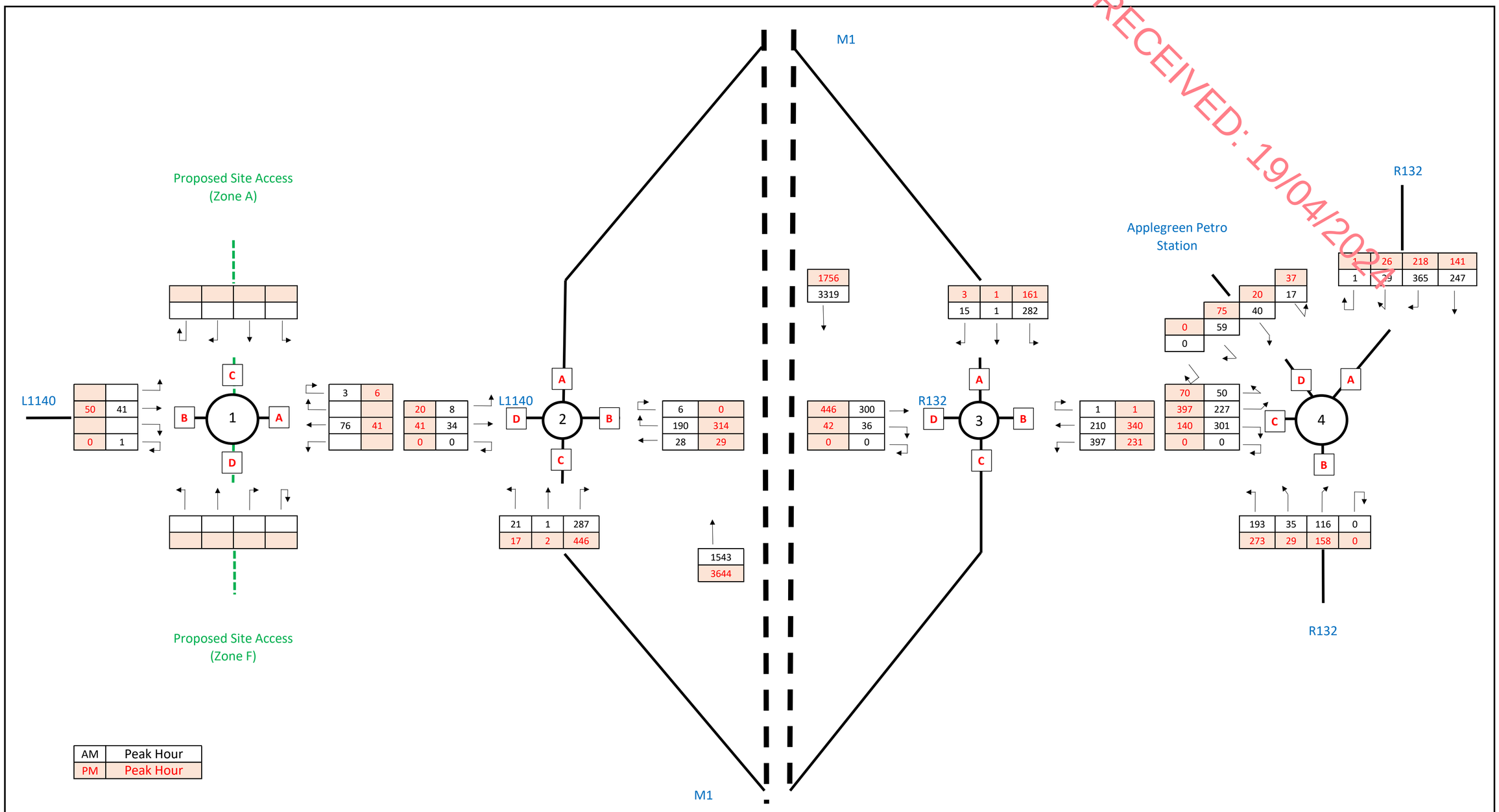
TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	2	7617	0.000	2	7617	0.007	2	7617	0.007
07:30 - 08:00	2	7617	0.020	2	7617	0.007	2	7617	0.027
08:00 - 08:30	2	7617	0.020	2	7617	0.013	2	7617	0.033
08:30 - 09:00	2	7617	0.039	2	7617	0.033	2	7617	0.072
09:00 - 09:30	2	7617	0.020	2	7617	0.026	2	7617	0.046
09:30 - 10:00	2	7617	0.026	2	7617	0.020	2	7617	0.046
10:00 - 10:30	2	7617	0.039	2	7617	0.020	2	7617	0.059
10:30 - 11:00	2	7617	0.013	2	7617	0.039	2	7617	0.052
11:00 - 11:30	2	7617	0.026	2	7617	0.039	2	7617	0.065
11:30 - 12:00	2	7617	0.020	2	7617	0.020	2	7617	0.040
12:00 - 12:30	2	7617	0.059	2	7617	0.046	2	7617	0.105
12:30 - 13:00	2	7617	0.033	2	7617	0.020	2	7617	0.053
13:00 - 13:30	2	7617	0.020	2	7617	0.020	2	7617	0.040
13:30 - 14:00	2	7617	0.020	2	7617	0.020	2	7617	0.040
14:00 - 14:30	2	7617	0.013	2	7617	0.020	2	7617	0.033
14:30 - 15:00	2	7617	0.013	2	7617	0.007	2	7617	0.020
15:00 - 15:30	2	7617	0.013	2	7617	0.007	2	7617	0.020
15:30 - 16:00	2	7617	0.026	2	7617	0.013	2	7617	0.039
16:00 - 16:30	2	7617	0.013	2	7617	0.020	2	7617	0.033
16:30 - 17:00	2	7617	0.000	2	7617	0.007	2	7617	0.007
17:00 - 17:30	2	7617	0.007	2	7617	0.013	2	7617	0.020
17:30 - 18:00	2	7617	0.007	2	7617	0.026	2	7617	0.033
18:00 - 18:30	2	7617	0.020	2	7617	0.007	2	7617	0.027
18:30 - 19:00	2	7617	0.020	2	7617	0.000	2	7617	0.020
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.487			0.450			0.937

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

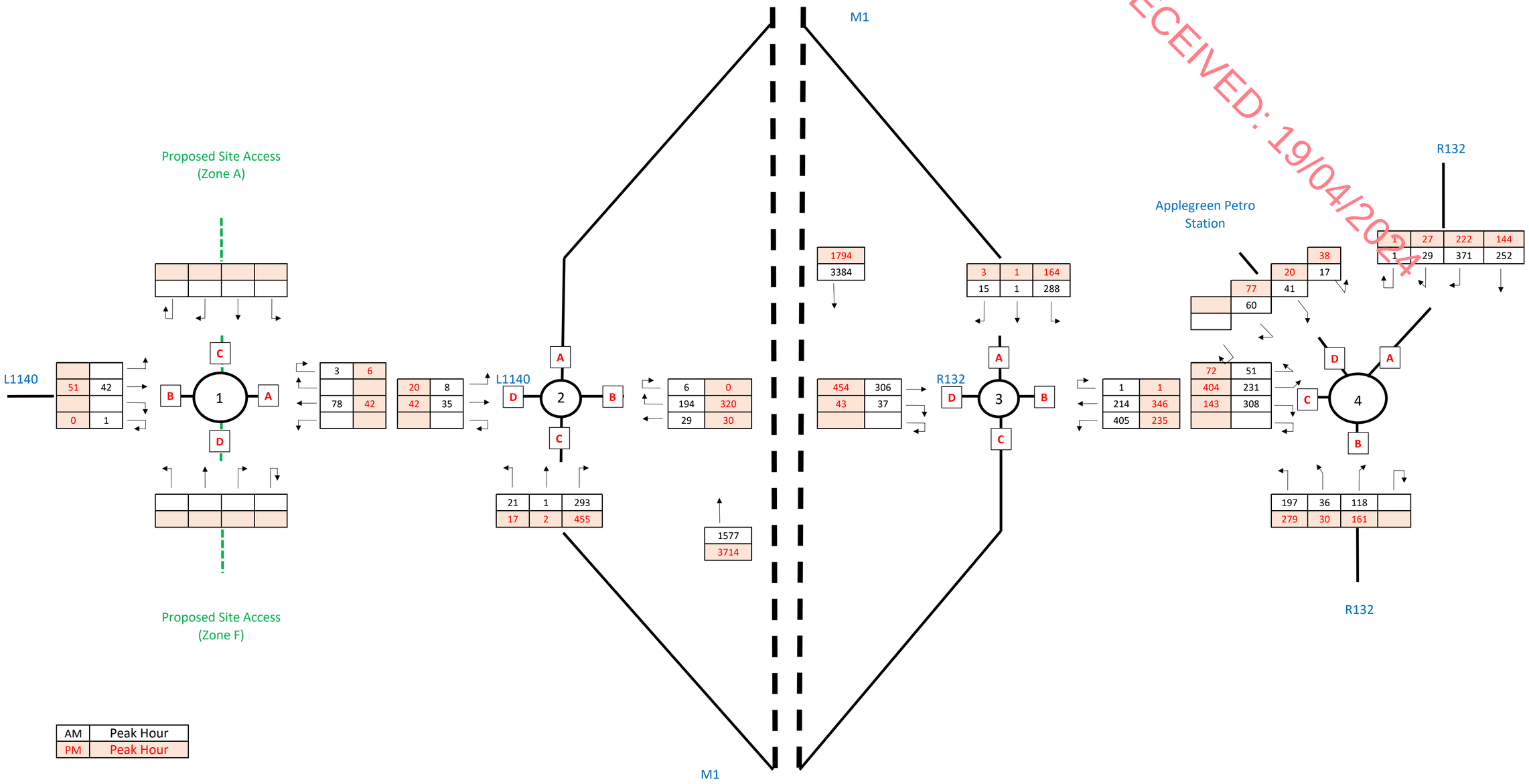
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

Appendix C – Traffic Flow Diagrams



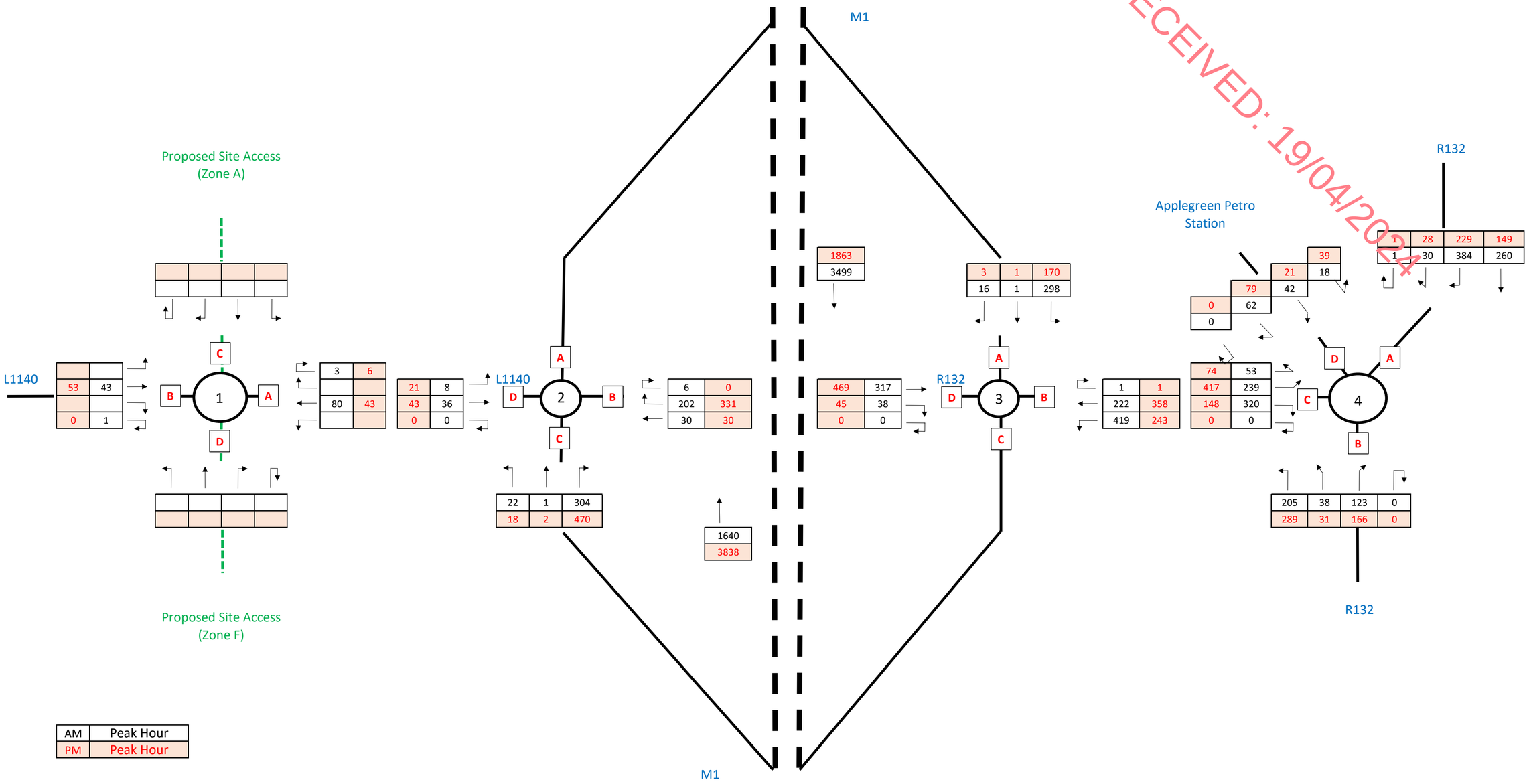
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2023 - Surveyed Flows (PCU)		

Clifton Scannell Emerson Associates



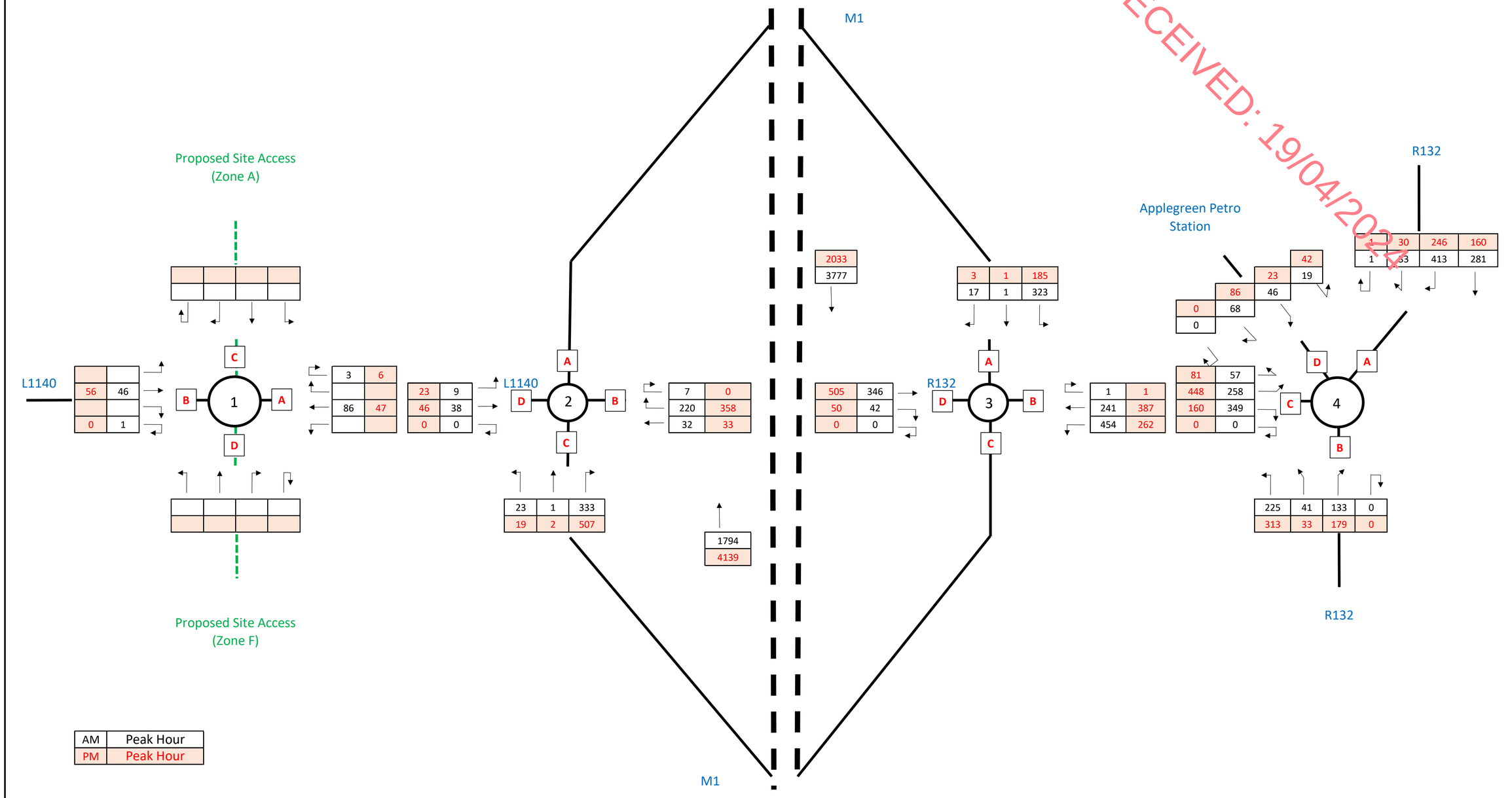
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2024 DO NOTHING (PCU)		

Clifton Scannell Emerson Associates



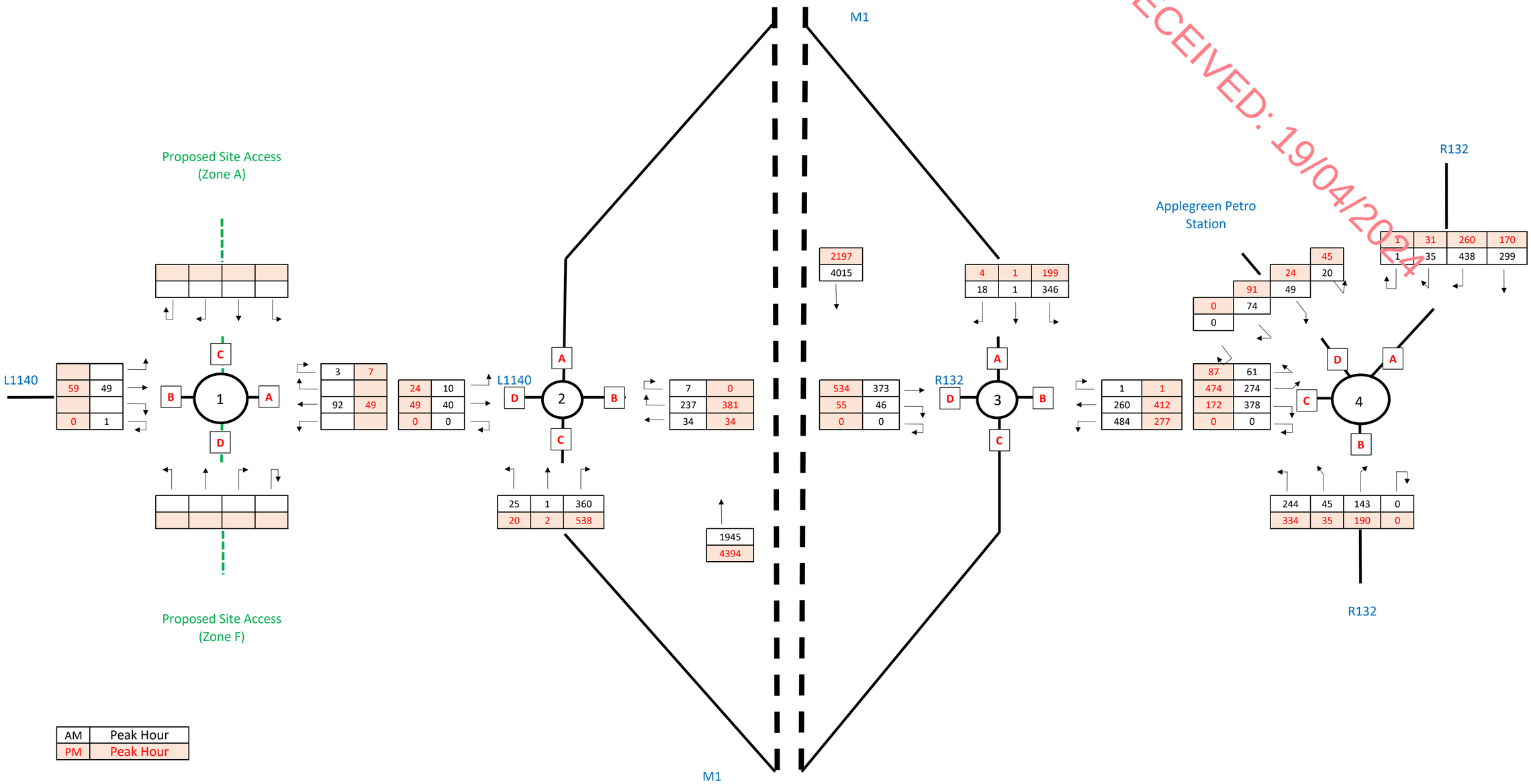
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2026 DO NOTHING (PCU)		

Clifton Scannell Emerson Associates



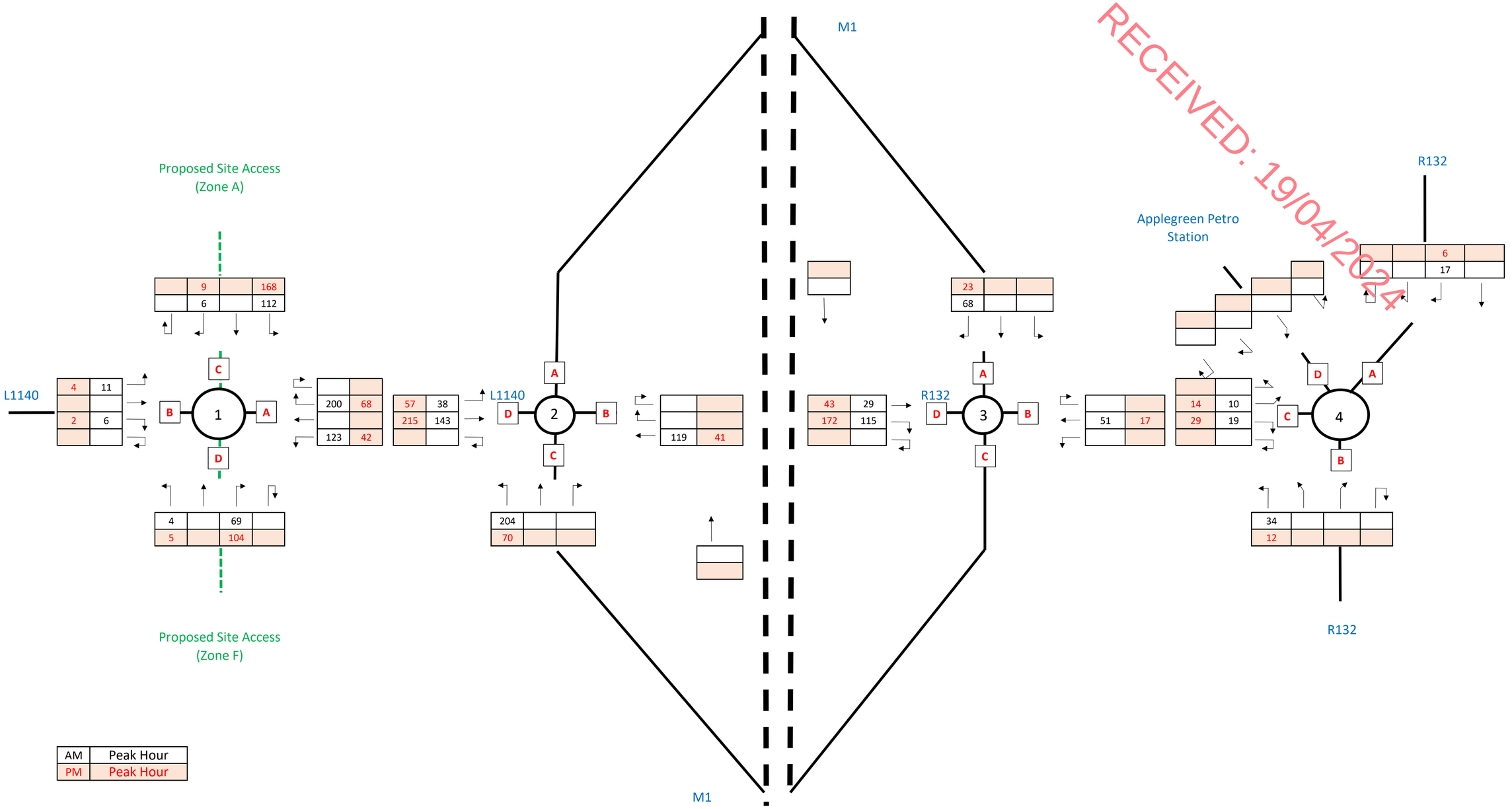
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2031 DO NOTHING (PCU)		

Clifton Scannell Emerson Associates



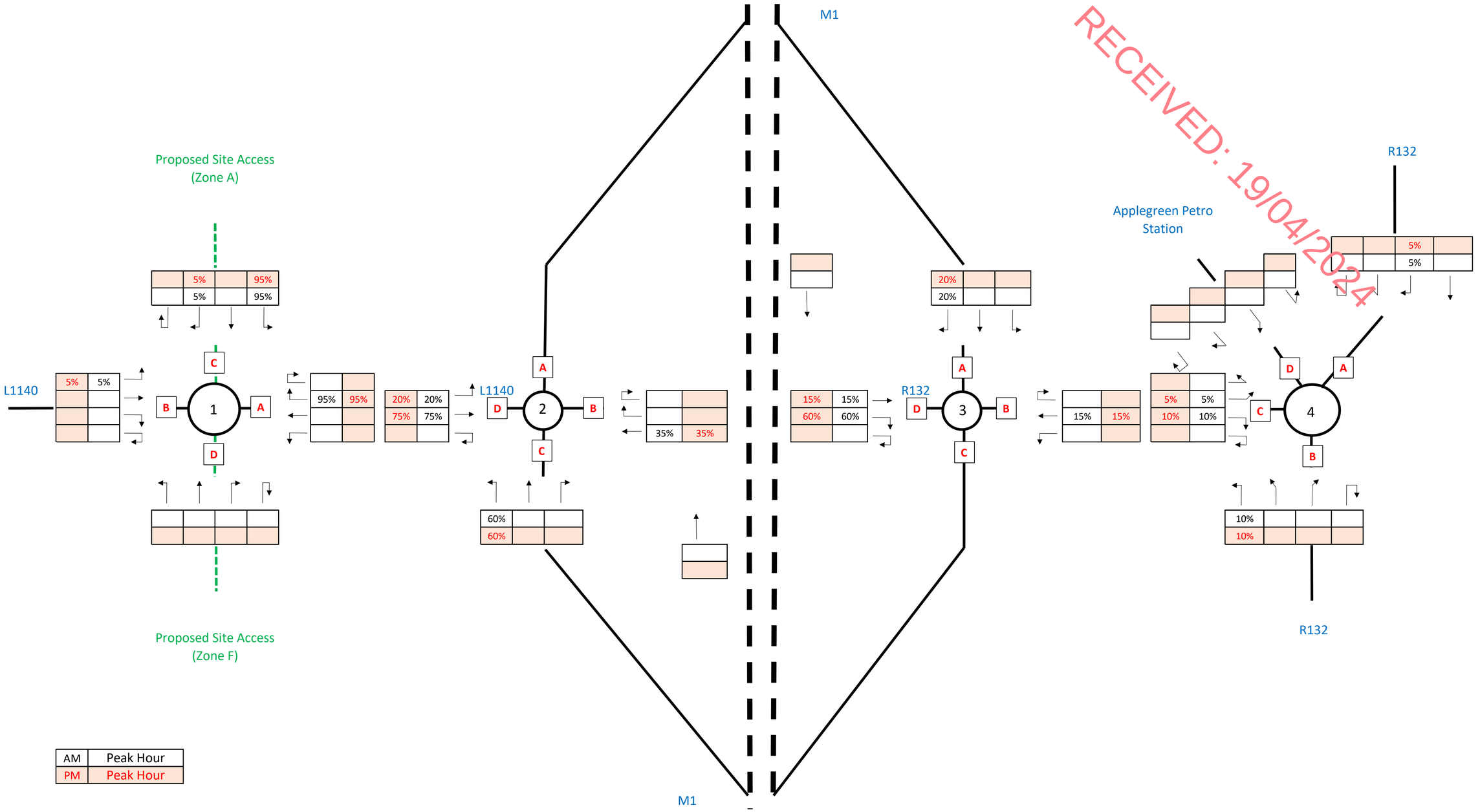
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2041 DO NOTHING (PCU)		

Clifton Scannell Emerson Associates



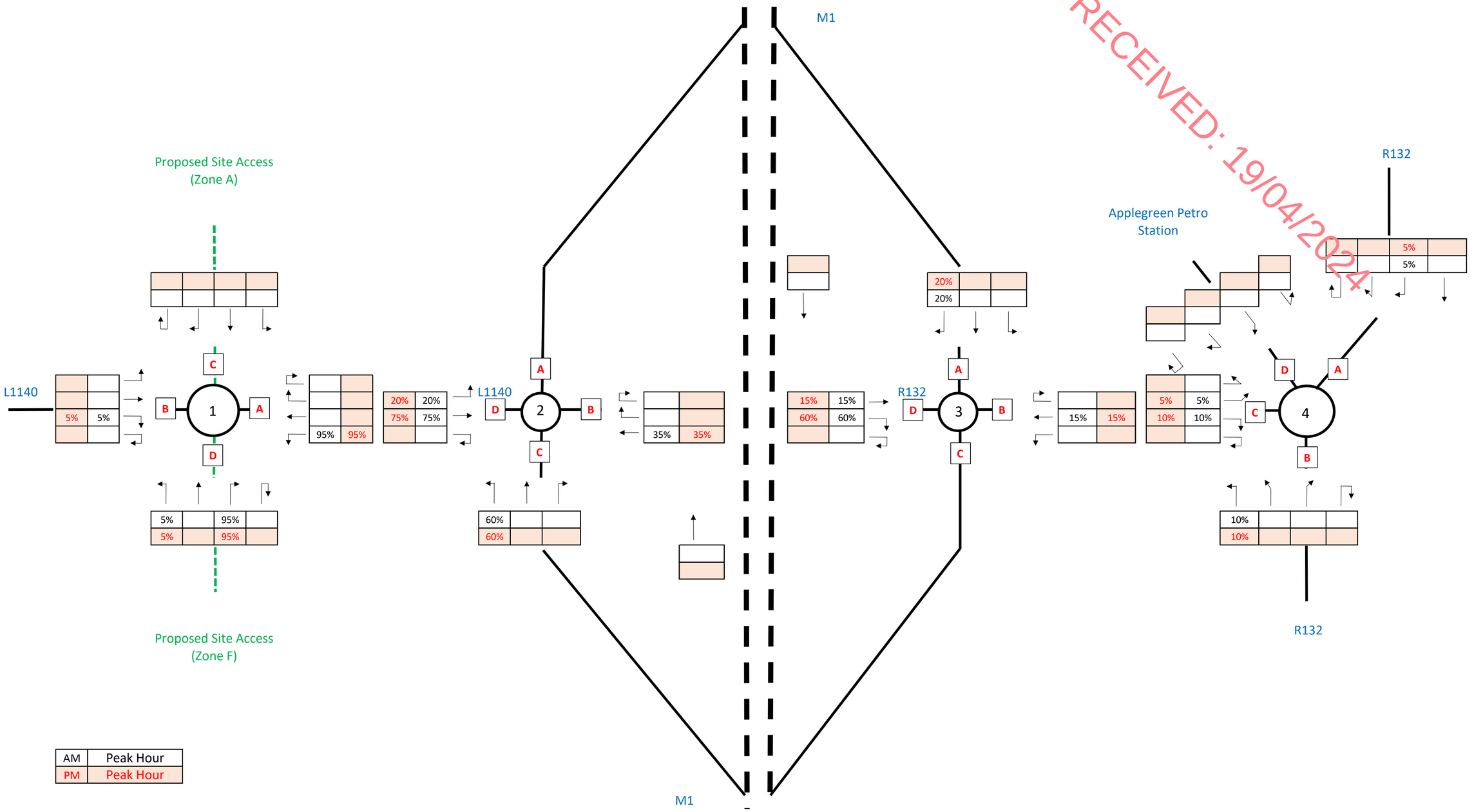
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	FUTURE-PLANNED COMMERCIAL BUILDINGS (ZONE A & ZONE F) - TRIP ASSIGNMENT (PCU)		

Clifton Scannell Emerson Associates



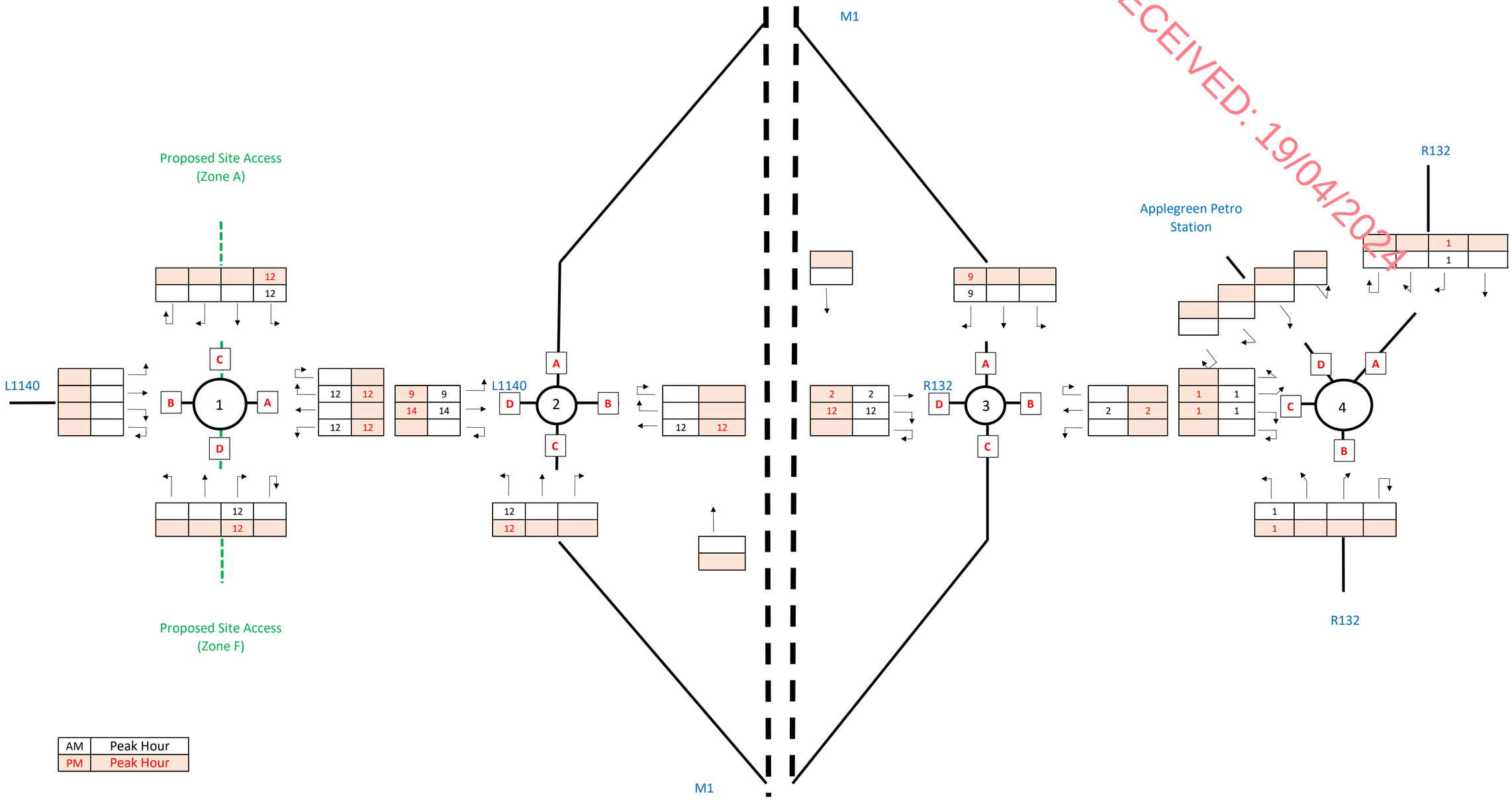
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	FUTURE-PLANNED COMMERDIAL BUILDINGS (ZONE A) - TRIP DISTRIBUTION		

Clifton Scannell Emerson Associates



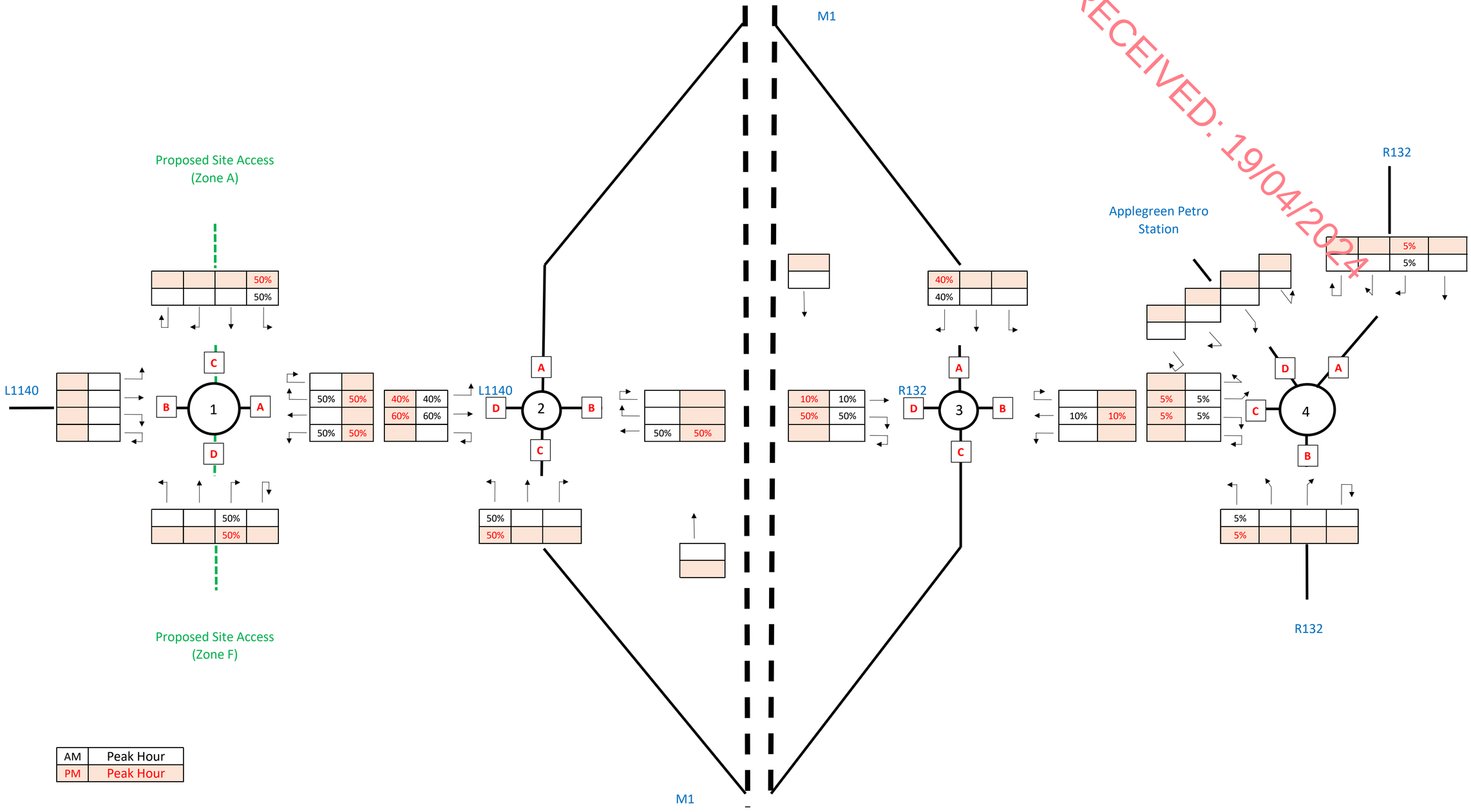
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	FUTURE PLANNED COMMERCIAL BUILDINGS (ZONE F) - TRIP DISTRIBUTION		

Clifton Scannell Emerson Associates



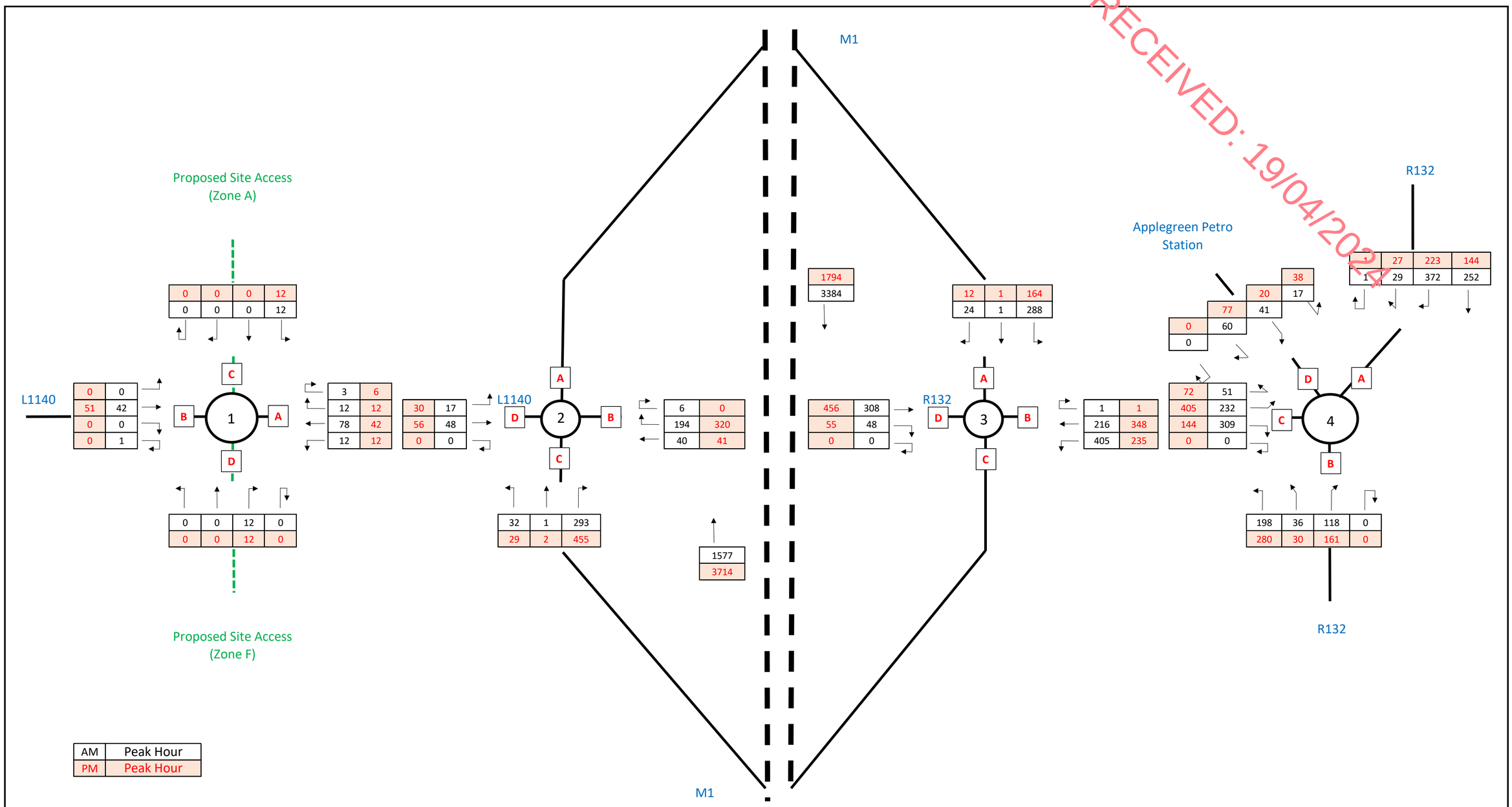
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	PROPOSED DEVELOPMENT (CIVIL INFRASTRUCTURE ONLY) - CONSTRUCTION TRAFFIC TRIP ASSIGNMENT (PCU)		

Clifton Scannell Emerson Associates



Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	PROPOSED DEVELOPMENT (CIVIL INFRASTRUCTURE ONLY) - CONSTRUCTION TRAFFIC TRIP DISTRIBUTION		

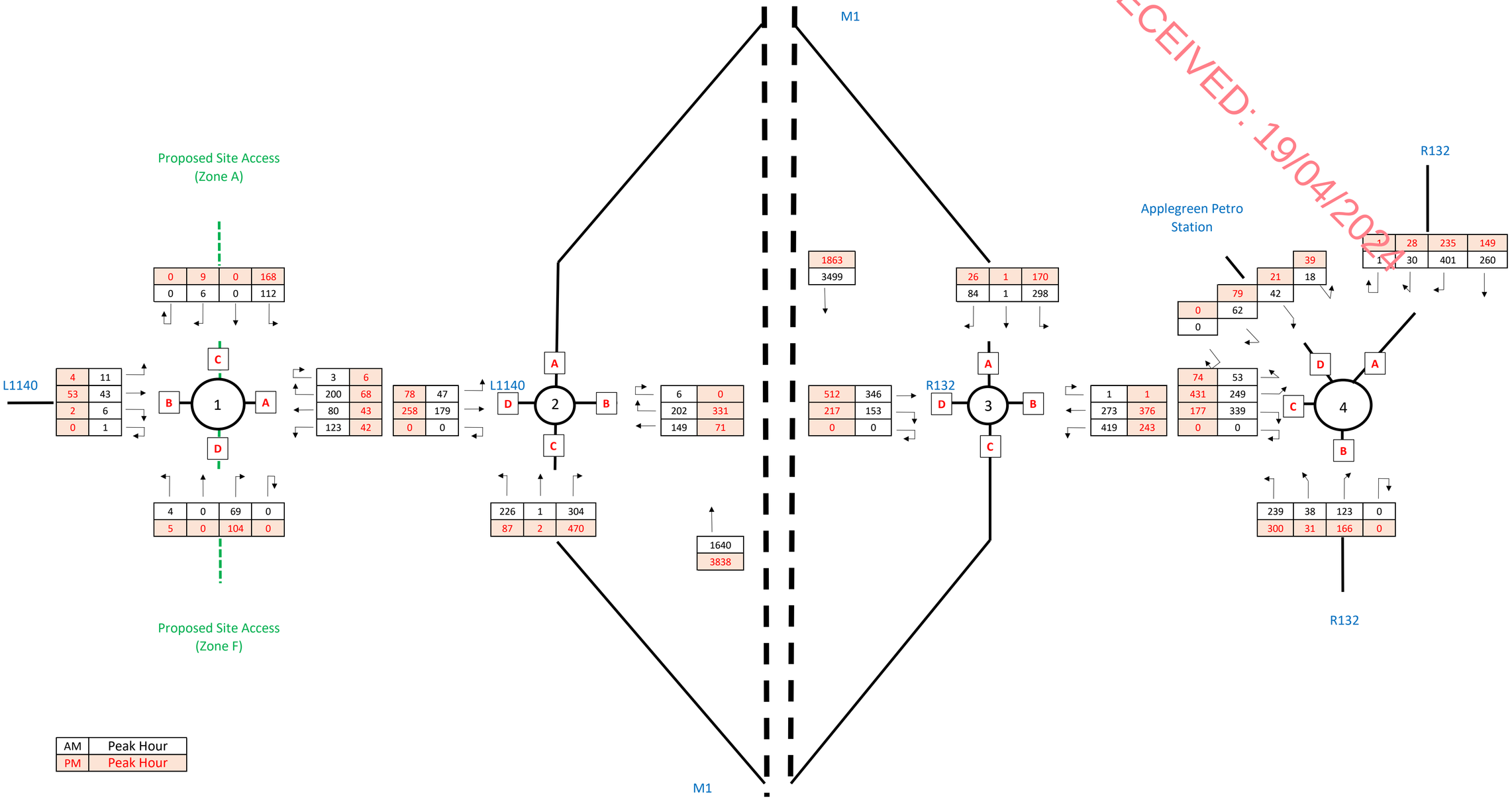
Clifton Scannell Emerson Associates



AM	Peak Hour
PM	Peak Hour

Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2024 - DO SOMETHING (PCU) - Construction Phase (Proposed Civil Infrastructure Only)		

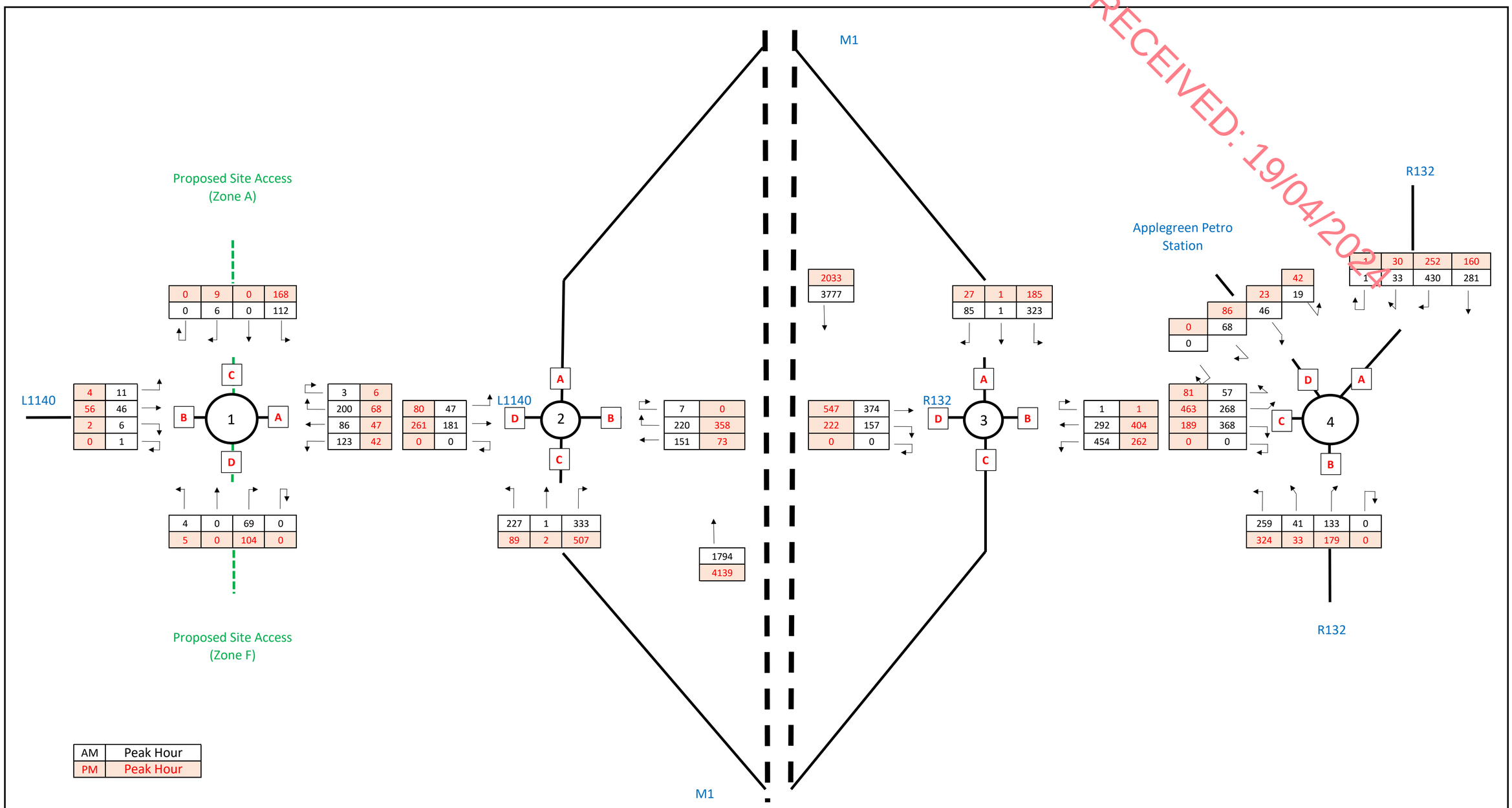
Clifton Scannell Emerson Associates



AM	Peak Hour
PM	Peak Hour

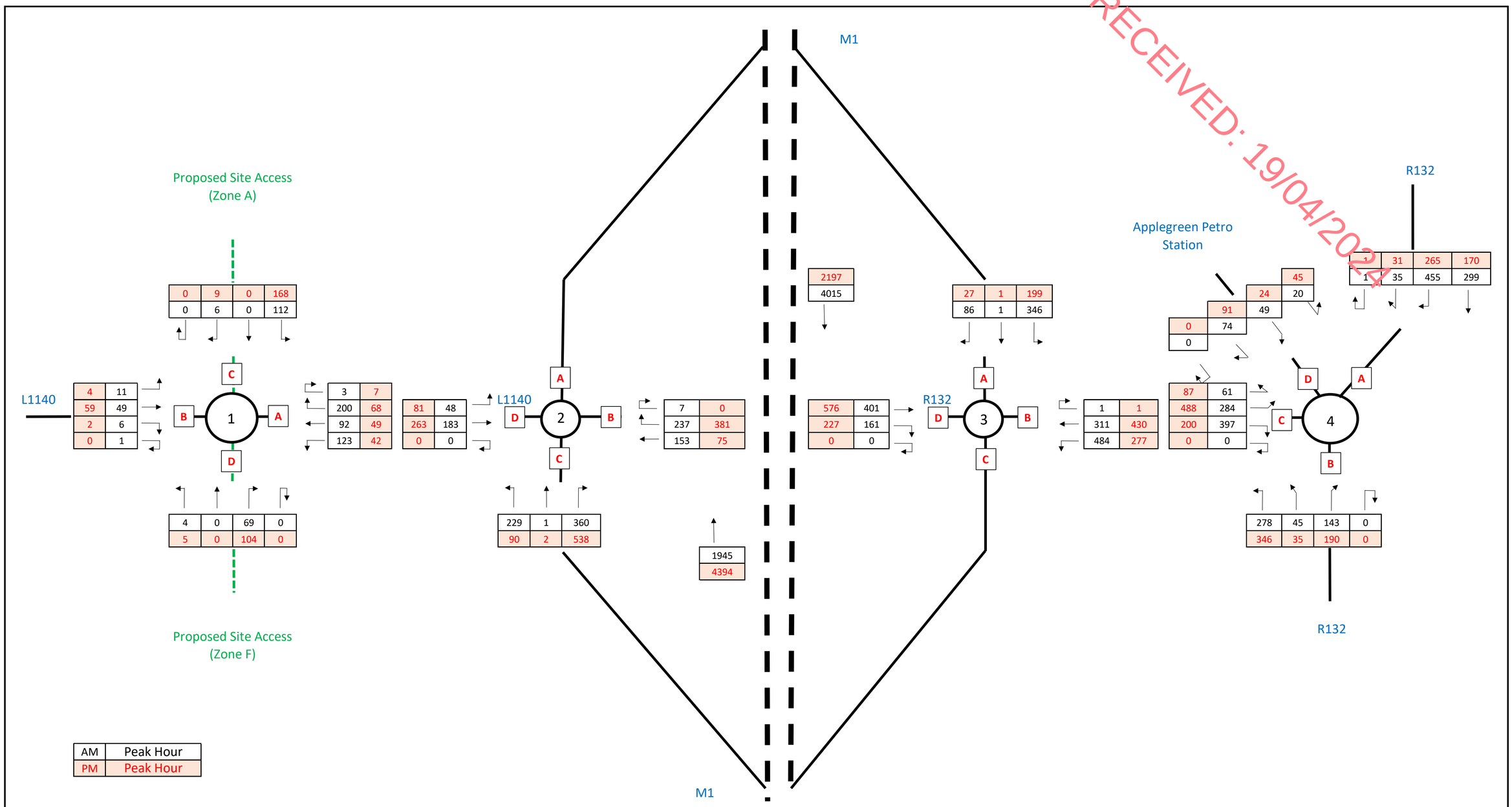
Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2026 - DO SOMETHING (PCU) - Operational Phase		

Clifton Scannell Emerson Associates



Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2031 - DO SOMETHING (PCU) - Operational Phase		

Clifton Scannell Emerson Associates



Project No.:	16_206A	**Project Name:**	M1 Business Park - Zones A & F
Client:	Vida M1 Limited		
Scenario:	2041 - DO SOMETHING (PCU) - Operational Phase		

Clifton Scannell Emerson Associates

Appendix D – ARCADY Output Reports

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

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

Filename: Site 1 - Existing Layout - AM_PM.j10
Path: Q:\2016 Jobs\16_206A M1 Business Park - Zone A\Traffic\2. Junction Models\1. Site 1
Report generation date: 05/03/2024 10:28:26

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Site 1 - 2023 SURVEYED FLOWS										
Arm 1	D1	0.1	3.37	0.07	A	D2	0.0	3.31	0.04	A
Arm 2		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 3		0.0	2.97	0.04	A		0.0	2.99	0.04	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Site 1 - 2024 DO NOTHING										
Arm 1	D3	0.1	3.41	0.07	A	D4	0.0	3.35	0.04	A
Arm 2		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 3		0.0	2.97	0.04	A		0.0	3.00	0.04	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Site 1 - 2026 DO NOTHING										
Arm 1	D5	0.1	3.38	0.08	A	D6	0.0	3.32	0.04	A
Arm 2		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 3		0.0	2.97	0.04	A		0.0	3.00	0.05	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Site 1 - 2031 DO NOTHING										
Arm 1	D7	0.1	3.40	0.08	A	D8	0.1	3.36	0.05	A
Arm 2		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 3		0.0	2.98	0.04	A		0.1	3.01	0.05	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Site 1 - 2041 DO NOTHING										
Arm 1	D9	0.1	3.45	0.09	A	D10	0.1	3.38	0.05	A
Arm 2		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 3		0.0	2.99	0.04	A		0.1	3.02	0.05	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A

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

File summary

File Description

Title	
Location	
Site number	
Date	07/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\fernando.figueiredo
Description	

Units

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

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:15	17:45	15
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D4	2024 DO NOTHING	PM	ONE HOUR	16:15	17:45	15
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D6	2026 DO NOTHING	PM	ONE HOUR	16:15	17:45	15
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D8	2031 DO NOTHING	PM	ONE HOUR	16:15	17:45	15
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D10	2041 DO NOTHING	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

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

Site 1 - 2023 SURVEYED FLOWS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.23	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled	L1140 (E)	
2	untitled	Proposed Access Road - Zone F (S)	
3	untitled	L1140 (W)	
4	untitled	Proposed Access Road - Zone A (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.21	5.53	4.7	30.4	50.0	42.0		
2	4.06	5.24	1.5	24.8	50.0	46.0		
3	3.66	5.16	2.9	36.3	50.0	41.0		
4	4.37	5.06	2.7	26.5	50.0	44.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.509	1212
2	0.514	1272
3	0.521	1260
4	0.539	1385

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	79	100.000
2		✓	0	100.000
3		✓	42	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	0	76	0
	2	0	0	0	0
	3	41	0	1	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	50	0	4	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.07	3.37	0.1	A
2	0.00	0.00	0.0	A
3	0.04	2.97	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	0.75	1212	0.049	59	0.1	3.286	A
2	0	60	1242	0.000	0	0.0	0.000	A
3	32	2	1259	0.025	32	0.0	2.932	A
4	0	34	1367	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	71	0.90	1212	0.059	71	0.1	3.319	A
2	0	72	1235	0.000	0	0.0	0.000	A
3	38	3	1259	0.030	38	0.0	2.947	A
4	0	40	1364	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	87	1	1212	0.072	87	0.1	3.367	A
2	0	88	1227	0.000	0	0.0	0.000	A
3	46	3	1258	0.037	46	0.0	2.969	A
4	0	50	1359	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	87	1	1212	0.072	87	0.1	3.367	A
2	0	88	1227	0.000	0	0.0	0.000	A
3	46	3	1258	0.037	46	0.0	2.969	A
4	0	50	1359	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	71	0.90	1212	0.059	71	0.1	3.319	A
2	0	72	1235	0.000	0	0.0	0.000	A
3	38	3	1259	0.030	38	0.0	2.947	A
4	0	40	1364	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	0.75	1212	0.049	60	0.1	3.286	A
2	0	60	1241	0.000	0	0.0	0.000	A
3	32	2	1259	0.025	32	0.0	2.932	A
4	0	34	1367	0.000	0	0.0	0.000	A

Site 1 - 2023 SURVEYED FLOWS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.15	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)
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	47	100.000
2		✓	0	100.000
3		✓	50	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	0	41	0
	2	0	0	0	0
	3	50	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	20	0	5	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.04	3.31	0.0	A
2	0.00	0.00	0.0	A
3	0.04	2.99	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	35	0	1212	0.029	35	0.0	3.263	A
2	0	35	1254	0.000	0	0.0	0.000	A
3	38	5	1258	0.030	38	0.0	2.949	A
4	0	42	1363	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	42	0	1212	0.035	42	0.0	3.282	A
2	0	42	1251	0.000	0	0.0	0.000	A
3	45	5	1257	0.036	45	0.0	2.968	A
4	0	50	1358	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	0	1212	0.043	52	0.0	3.309	A
2	0	52	1246	0.000	0	0.0	0.000	A
3	55	7	1257	0.044	55	0.0	2.995	A
4	0	62	1352	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	0	1212	0.043	52	0.0	3.309	A
2	0	52	1246	0.000	0	0.0	0.000	A
3	55	7	1257	0.044	55	0.0	2.995	A
4	0	62	1352	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	42	0	1212	0.035	42	0.0	3.284	A
2	0	42	1251	0.000	0	0.0	0.000	A
3	45	5	1257	0.036	45	0.0	2.968	A
4	0	50	1358	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	35	0	1212	0.029	35	0.0	3.265	A
2	0	35	1254	0.000	0	0.0	0.000	A
3	38	5	1258	0.030	38	0.0	2.949	A
4	0	42	1363	0.000	0	0.0	0.000	A

Site 1 - 2024 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.26	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)
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	81	100.000
2		✓	0	100.000
3		✓	43	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	0	78	0
	2	0	0	0	0
	3	42	0	1	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	60	12	5	13
	2	21	0	0	0
	3	0	0	0	9
	4	22	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.07	3.41	0.1	A
2	0.00	0.00	0.0	A
3	0.04	2.97	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	61	0.75	1212	0.050	61	0.1	3.325	A
2	0	62	1241	0.000	0	0.0	0.000	A
3	32	2	1259	0.026	32	0.0	2.934	A
4	0	35	1367	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	73	0.90	1212	0.060	73	0.1	3.360	A
2	0	74	1235	0.000	0	0.0	0.000	A
3	39	3	1259	0.031	39	0.0	2.949	A
4	0	41	1363	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	89	1	1212	0.074	89	0.1	3.409	A
2	0	90	1226	0.000	0	0.0	0.000	A
3	47	3	1258	0.038	47	0.0	2.971	A
4	0	51	1358	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	89	1	1212	0.074	89	0.1	3.409	A
2	0	90	1226	0.000	0	0.0	0.000	A
3	47	3	1258	0.038	47	0.0	2.971	A
4	0	51	1358	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	73	0.90	1212	0.060	73	0.1	3.360	A
2	0	74	1234	0.000	0	0.0	0.000	A
3	39	3	1259	0.031	39	0.0	2.952	A
4	0	41	1363	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	61	0.75	1212	0.050	61	0.1	3.326	A
2	0	62	1241	0.000	0	0.0	0.000	A
3	32	2	1259	0.026	32	0.0	2.936	A
4	0	35	1367	0.000	0	0.0	0.000	A

Site 1 - 2024 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.17	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)
D4	2024 DO NOTHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	48	100.000
2		✓	0	100.000
3		✓	51	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	0	42	0
	2	0	0	0	0
	3	51	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	24	18	6	15
	2	9	0	0	0
	3	0	0	0	25
	4	8	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.04	3.35	0.0	A
2	0.00	0.00	0.0	A
3	0.04	3.00	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	36	0	1212	0.030	36	0.0	3.303	A
2	0	36	1254	0.000	0	0.0	0.000	A
3	38	5	1258	0.031	38	0.0	2.951	A
4	0	43	1362	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	43	0	1212	0.036	43	0.0	3.323	A
2	0	43	1250	0.000	0	0.0	0.000	A
3	46	5	1257	0.036	46	0.0	2.970	A
4	0	51	1358	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	53	0	1212	0.044	53	0.0	3.351	A
2	0	53	1245	0.000	0	0.0	0.000	A
3	56	7	1257	0.045	56	0.0	2.997	A
4	0	63	1352	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	53	0	1212	0.044	53	0.0	3.351	A
2	0	53	1245	0.000	0	0.0	0.000	A
3	56	7	1257	0.045	56	0.0	2.997	A
4	0	63	1352	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	43	0	1212	0.036	43	0.0	3.326	A
2	0	43	1250	0.000	0	0.0	0.000	A
3	46	5	1257	0.036	46	0.0	2.971	A
4	0	51	1358	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	36	0	1212	0.030	36	0.0	3.306	A
2	0	36	1254	0.000	0	0.0	0.000	A
3	38	5	1258	0.031	38	0.0	2.951	A
4	0	43	1362	0.000	0	0.0	0.000	A

Site 1 - 2026 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.24	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)
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	83	100.000
2		✓	0	100.000
3		✓	44	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	0	80	0
	2	0	0	0	0
	3	43	0	1	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	52	0	4	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.08	3.38	0.1	A
2	0.00	0.00	0.0	A
3	0.04	2.97	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	0.75	1212	0.052	62	0.1	3.293	A
2	0	63	1240	0.000	0	0.0	0.000	A
3	33	2	1259	0.026	33	0.0	2.936	A
4	0	35	1366	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	75	0.90	1212	0.062	75	0.1	3.329	A
2	0	75	1234	0.000	0	0.0	0.000	A
3	40	3	1259	0.031	40	0.0	2.952	A
4	0	42	1363	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	91	1	1212	0.075	91	0.1	3.379	A
2	0	92	1225	0.000	0	0.0	0.000	A
3	48	3	1258	0.039	48	0.0	2.974	A
4	0	52	1358	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	91	1	1212	0.075	91	0.1	3.379	A
2	0	92	1225	0.000	0	0.0	0.000	A
3	48	3	1258	0.039	48	0.0	2.974	A
4	0	52	1358	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	75	0.90	1212	0.062	75	0.1	3.332	A
2	0	76	1234	0.000	0	0.0	0.000	A
3	40	3	1259	0.031	40	0.0	2.952	A
4	0	42	1363	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	0.75	1212	0.052	63	0.1	3.294	A
2	0	63	1240	0.000	0	0.0	0.000	A
3	33	2	1259	0.026	33	0.0	2.936	A
4	0	35	1366	0.000	0	0.0	0.000	A

Site 1 - 2026 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.15	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)
D6	2026 DO NOTHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	49	100.000
2		✓	0	100.000
3		✓	53	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	0	43	0
	2	0	0	0	0
	3	53	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	21	0	5	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.04	3.32	0.0	A
2	0.00	0.00	0.0	A
3	0.05	3.00	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	37	0	1212	0.030	37	0.0	3.267	A
2	0	37	1254	0.000	0	0.0	0.000	A
3	40	5	1258	0.032	40	0.0	2.955	A
4	0	44	1362	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	44	0	1212	0.036	44	0.0	3.287	A
2	0	44	1250	0.000	0	0.0	0.000	A
3	48	5	1257	0.038	48	0.0	2.975	A
4	0	53	1357	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	0	1212	0.045	54	0.0	3.316	A
2	0	54	1245	0.000	0	0.0	0.000	A
3	58	7	1257	0.046	58	0.0	3.003	A
4	0	65	1351	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	0	1212	0.045	54	0.0	3.316	A
2	0	54	1245	0.000	0	0.0	0.000	A
3	58	7	1257	0.046	58	0.0	3.003	A
4	0	65	1350	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	44	0	1212	0.036	44	0.0	3.290	A
2	0	44	1250	0.000	0	0.0	0.000	A
3	48	5	1257	0.038	48	0.0	2.977	A
4	0	53	1357	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	37	0	1212	0.030	37	0.0	3.270	A
2	0	37	1253	0.000	0	0.0	0.000	A
3	40	5	1258	0.032	40	0.0	2.957	A
4	0	44	1362	0.000	0	0.0	0.000	A

Site 1 - 2031 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.25	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)
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	89	100.000
2		✓	0	100.000
3		✓	47	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	0	86	0
	2	0	0	0	0
	3	46	0	1	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	55	0	4	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.08	3.40	0.1	A
2	0.00	0.00	0.0	A
3	0.04	2.98	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	67	0.75	1212	0.055	67	0.1	3.305	A
2	0	68	1238	0.000	0	0.0	0.000	A
3	35	2	1259	0.028	35	0.0	2.941	A
4	0	38	1365	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	80	0.90	1212	0.066	80	0.1	3.344	A
2	0	81	1231	0.000	0	0.0	0.000	A
3	42	3	1259	0.034	42	0.0	2.958	A
4	0	45	1361	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	98	1	1212	0.081	98	0.1	3.398	A
2	0	99	1221	0.000	0	0.0	0.000	A
3	52	3	1258	0.041	52	0.0	2.982	A
4	0	55	1356	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	98	1	1212	0.081	98	0.1	3.398	A
2	0	99	1221	0.000	0	0.0	0.000	A
3	52	3	1258	0.041	52	0.0	2.982	A
4	0	55	1356	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	80	0.90	1212	0.066	80	0.1	3.347	A
2	0	81	1231	0.000	0	0.0	0.000	A
3	42	3	1259	0.034	42	0.0	2.961	A
4	0	45	1361	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	67	0.75	1212	0.055	67	0.1	3.308	A
2	0	68	1238	0.000	0	0.0	0.000	A
3	35	2	1259	0.028	35	0.0	2.941	A
4	0	38	1365	0.000	0	0.0	0.000	A

Site 1 - 2031 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.18	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)
D8	2031 DO NOTHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	53	100.000
2		✓	0	100.000
3		✓	56	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	0	47	0
	2	0	0	0	0
	3	56	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	22	0	6	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.05	3.36	0.1	A
2	0.00	0.00	0.0	A
3	0.05	3.01	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	40	0	1212	0.033	40	0.0	3.303	A
2	0	40	1252	0.000	0	0.0	0.000	A
3	42	5	1258	0.034	42	0.0	2.960	A
4	0	47	1360	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	48	0	1212	0.039	48	0.0	3.325	A
2	0	48	1248	0.000	0	0.0	0.000	A
3	50	5	1257	0.040	50	0.0	2.981	A
4	0	56	1355	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	0	1212	0.048	58	0.1	3.355	A
2	0	58	1242	0.000	0	0.0	0.000	A
3	62	7	1257	0.049	62	0.1	3.011	A
4	0	68	1349	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	0	1212	0.048	58	0.1	3.355	A
2	0	58	1242	0.000	0	0.0	0.000	A
3	62	7	1257	0.049	62	0.1	3.011	A
4	0	68	1349	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	48	0	1212	0.039	48	0.0	3.325	A
2	0	48	1248	0.000	0	0.0	0.000	A
3	50	5	1257	0.040	50	0.0	2.984	A
4	0	56	1355	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	40	0	1212	0.033	40	0.0	3.305	A
2	0	40	1252	0.000	0	0.0	0.000	A
3	42	5	1258	0.034	42	0.0	2.960	A
4	0	47	1360	0.000	0	0.0	0.000	A

Site 1 - 2041 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.29	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)
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	95	100.000
2		✓	0	100.000
3		✓	50	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	0	92	0
	2	0	0	0	0
	3	49	0	1	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	60	0	5	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.09	3.45	0.1	A
2	0.00	0.00	0.0	A
3	0.04	2.99	0.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	72	0.75	1212	0.059	71	0.1	3.350	A
2	0	72	1235	0.000	0	0.0	0.000	A
3	38	2	1259	0.030	38	0.0	2.946	A
4	0	40	1364	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	85	0.90	1212	0.070	85	0.1	3.391	A
2	0	86	1228	0.000	0	0.0	0.000	A
3	45	3	1259	0.036	45	0.0	2.965	A
4	0	48	1360	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	105	1	1212	0.086	105	0.1	3.450	A
2	0	106	1218	0.000	0	0.0	0.000	A
3	55	3	1258	0.044	55	0.0	2.990	A
4	0	58	1354	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	105	1	1212	0.086	105	0.1	3.450	A
2	0	106	1218	0.000	0	0.0	0.000	A
3	55	3	1258	0.044	55	0.0	2.990	A
4	0	58	1354	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	85	0.90	1212	0.070	85	0.1	3.394	A
2	0	86	1228	0.000	0	0.0	0.000	A
3	45	3	1259	0.036	45	0.0	2.967	A
4	0	48	1360	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	72	0.75	1212	0.059	72	0.1	3.353	A
2	0	72	1235	0.000	0	0.0	0.000	A
3	38	2	1259	0.030	38	0.0	2.947	A
4	0	40	1364	0.000	0	0.0	0.000	A

Site 1 - 2041 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.19	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)
D10	2041 DO NOTHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	56	100.000
2		✓	0	100.000
3		✓	59	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	7	0	49	0
	2	0	0	0	0
	3	59	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	24	0	6	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.05	3.38	0.1	A
2	0.00	0.00	0.0	A
3	0.05	3.02	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	42	0	1212	0.035	42	0.0	3.320	A
2	0	42	1251	0.000	0	0.0	0.000	A
3	44	5	1257	0.035	44	0.0	2.967	A
4	0	50	1359	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	0	1212	0.042	50	0.0	3.343	A
2	0	50	1247	0.000	0	0.0	0.000	A
3	53	6	1257	0.042	53	0.0	2.989	A
4	0	59	1354	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	0	1212	0.051	62	0.1	3.376	A
2	0	62	1241	0.000	0	0.0	0.000	A
3	65	8	1256	0.052	65	0.1	3.021	A
4	0	73	1346	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	0	1212	0.051	62	0.1	3.376	A
2	0	62	1241	0.000	0	0.0	0.000	A
3	65	8	1256	0.052	65	0.1	3.021	A
4	0	73	1346	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	0	1212	0.042	50	0.0	3.344	A
2	0	50	1246	0.000	0	0.0	0.000	A
3	53	6	1257	0.042	53	0.0	2.992	A
4	0	59	1354	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	42	0	1212	0.035	42	0.0	3.323	A
2	0	42	1251	0.000	0	0.0	0.000	A
3	44	5	1257	0.035	44	0.0	2.997	A
4	0	50	1359	0.000	0	0.0	0.000	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

Filename: Site 1 - Proposed Layout - AM_PM.j10
Path: Q:\2016 Jobs\16_206A M1 Business Park - Zone A\Traffic\2. Junction Models\1. Site 1
Report generation date: 05/03/2024 10:29:56

»Site 1 - Proposed Layout - 2024 DO SOMETHING, AM
»Site 1 - Proposed Layout - 2024 DO SOMETHING, PM
»Site 1 - Proposed Layout - 2026 DO SOMETHING, AM
»Site 1 - Proposed Layout - 2026 DO SOMETHING, PM
»Site 1 - Proposed Layout - 2031 DO SOMETHING, AM
»Site 1 - Proposed Layout - 2031 DO SOMETHING, PM
»Site 1 - Proposed Layout - 2041 DO SOMETHING, AM
»Site 1 - Proposed Layout - 2041 DO SOMETHING, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Site 1 - Proposed Layout - 2024 DO SOMETHING									
Arm 1	D1	0.1	3.19	0.09	A	D2	0.1	3.18	0.06	A
Arm 2		0.0	2.34	0.01	A		0.0	2.08	0.01	A
Arm 3		0.0	2.81	0.04	A		0.0	2.83	0.04	A
Arm 4		0.0	2.83	0.01	A		0.0	2.52	0.01	A
	Site 1 - Proposed Layout - 2026 DO SOMETHING									
Arm 1	D3	0.6	4.56	0.34	A	D4	0.2	3.54	0.13	A
Arm 2		0.1	2.60	0.05	A		0.1	2.26	0.06	A
Arm 3		0.1	3.27	0.06	A		0.1	3.11	0.05	A
Arm 4		0.1	3.12	0.09	A		0.2	2.98	0.13	A
	Site 1 - Proposed Layout - 2031 DO SOMETHING									
Arm 1	D5	0.6	4.59	0.34	A	D6	0.2	3.56	0.14	A
Arm 2		0.1	2.61	0.05	A		0.1	2.26	0.06	A
Arm 3		0.1	3.28	0.06	A		0.1	3.11	0.06	A
Arm 4		0.1	3.12	0.09	A		0.2	2.98	0.13	A
	Site 1 - Proposed Layout - 2041 DO SOMETHING									
Arm 1	D7	0.6	4.63	0.35	A	D8	0.2	3.57	0.14	A
Arm 2		0.1	2.62	0.05	A		0.1	2.26	0.06	A
Arm 3		0.1	3.29	0.06	A		0.1	3.12	0.06	A
Arm 4		0.1	3.12	0.09	A		0.2	2.99	0.13	A

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

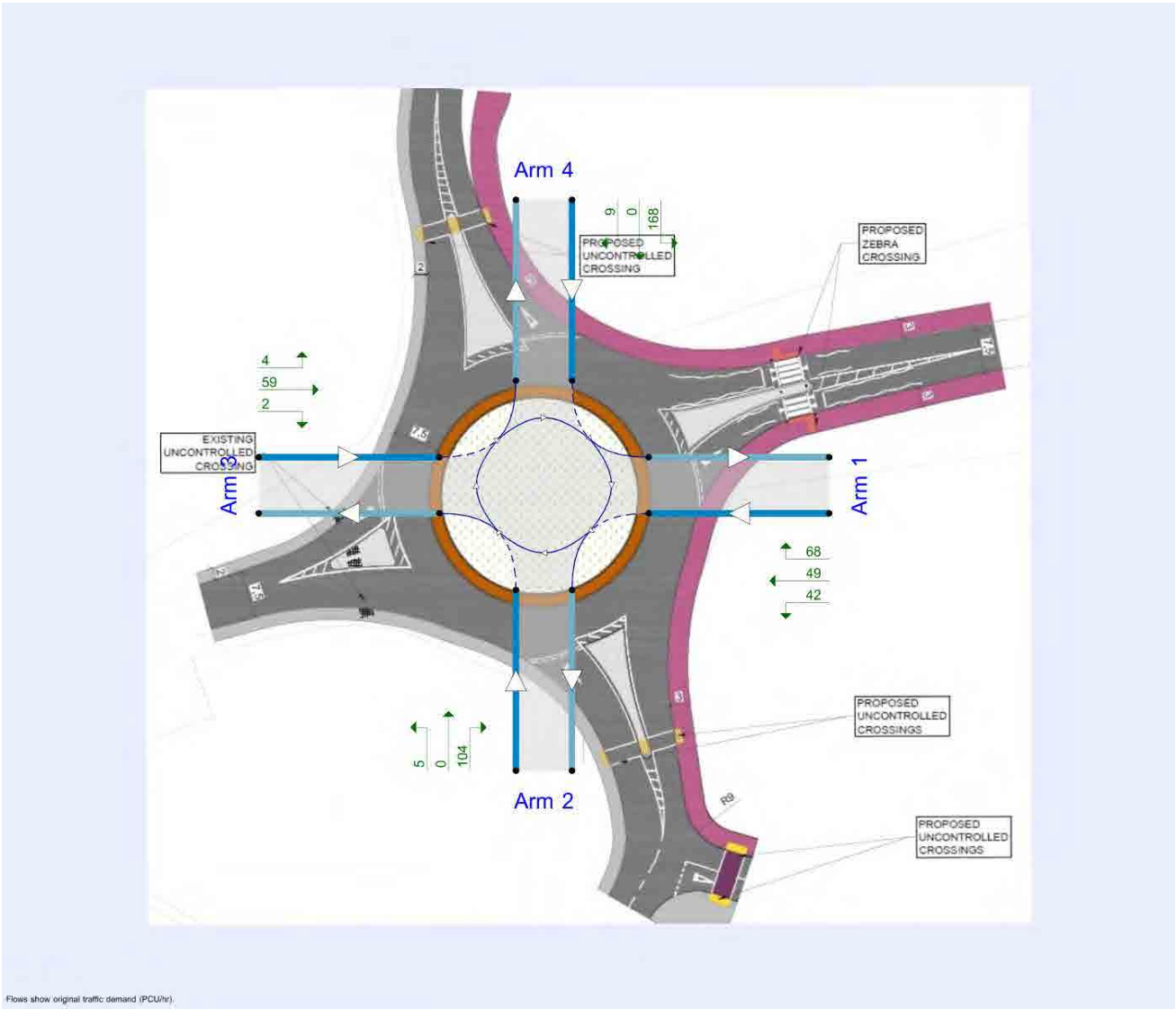
File summary

File Description

Title	
Location	
Site number	
Date	07/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\fernando.figueiredo
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D2	2024 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15
D3	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D4	2026 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15
D5	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D6	2031 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15
D7	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D8	2041 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Site 1 - Proposed Layout	100.000

Site 1 - Proposed Layout - 2024 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.01	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled	L1140 (E)	
2	untitled	Proposed Access Road - Zone F (S)	
3	untitled	L1140 (W)	
4	untitled	Proposed Access Road - Zone A (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.24	6.18	6.4	33.1	50.0	38.0		
2	5.22	7.40	7.3	37.5	50.0	33.0		
3	3.81	5.52	3.5	30.4	50.0	37.0		
4	3.86	6.54	8.8	34.6	50.0	32.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.536	1331
2	0.658	1943
3	0.539	1344
4	0.594	1603

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	105	100.000
2		✓	12	100.000
3		✓	43	100.000
4		✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	12	78	12
	2	12	0	0	0
	3	42	0	1	0
	4	12	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	60	12	5	13
	2	21	0	0	0
	3	0	0	0	9
	4	22	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.09	3.19	0.1	A
2	0.01	2.34	0.0	A
3	0.04	2.81	0.0	A
4	0.01	2.83	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	0.75	1331	0.059	79	0.1	3.096	A
2	9	71	1897	0.005	9	0.0	2.307	A
3	32	20	1334	0.024	32	0.0	2.766	A
4	9	44	1578	0.006	9	0.0	2.799	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	94	0.90	1331	0.071	94	0.1	3.135	A
2	11	84	1888	0.006	11	0.0	2.320	A
3	39	24	1331	0.029	39	0.0	2.794	A
4	11	52	1572	0.007	11	0.0	2.811	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	116	1	1330	0.087	116	0.1	3.190	A
2	13	103	1875	0.007	13	0.0	2.339	A
3	47	30	1328	0.036	47	0.0	2.809	A
4	13	64	1565	0.008	13	0.0	2.828	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	116	1	1330	0.087	116	0.1	3.190	A
2	13	103	1875	0.007	13	0.0	2.339	A
3	47	30	1328	0.036	47	0.0	2.809	A
4	13	64	1565	0.008	13	0.0	2.828	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	94	0.90	1331	0.071	94	0.1	3.138	A
2	11	85	1888	0.006	11	0.0	2.320	A
3	39	24	1331	0.029	39	0.0	2.786	A
4	11	52	1572	0.007	11	0.0	2.811	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	0.75	1331	0.059	79	0.1	3.099	A
2	9	71	1897	0.005	9	0.0	2.309	A
3	32	20	1334	0.024	32	0.0	2.768	A
4	9	44	1577	0.006	9	0.0	2.799	A

Site 1 - Proposed Layout - 2024 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.92	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)
D2	2024 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	72	100.000
2		✓	12	100.000
3		✓	51	100.000
4		✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	12	42	12
	2	12	0	0	0
	3	51	0	0	0
	4	12	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	24	18	6	15
	2	9	0	0	0
	3	0	0	0	25
	4	8	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.06	3.18	0.1	A
2	0.01	2.08	0.0	A
3	0.04	2.83	0.0	A
4	0.01	2.52	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	0	1331	0.041	54	0.0	3.119	A
2	9	45	1914	0.005	9	0.0	2.059	A
3	38	23	1332	0.029	38	0.0	2.781	A
4	9	52	1573	0.006	9	0.0	2.486	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	0	1331	0.049	65	0.1	3.145	A
2	11	54	1908	0.006	11	0.0	2.068	A
3	46	27	1330	0.034	46	0.0	2.802	A
4	11	62	1567	0.007	11	0.0	2.498	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	0	1331	0.060	79	0.1	3.181	A
2	13	66	1900	0.007	13	0.0	2.079	A
3	56	33	1327	0.042	56	0.0	2.832	A
4	13	76	1558	0.008	13	0.0	2.515	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	0	1331	0.060	79	0.1	3.181	A
2	13	66	1900	0.007	13	0.0	2.079	A
3	56	33	1327	0.042	56	0.0	2.832	A
4	13	76	1558	0.008	13	0.0	2.515	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	0	1331	0.049	65	0.1	3.147	A
2	11	54	1908	0.006	11	0.0	2.069	A
3	46	27	1330	0.034	46	0.0	2.605	A
4	11	62	1566	0.007	11	0.0	2.500	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	0	1331	0.041	54	0.0	3.121	A
2	9	45	1914	0.005	9	0.0	2.060	A
3	38	23	1332	0.029	38	0.0	2.781	A
4	9	52	1572	0.006	9	0.0	2.488	A

Site 1 - Proposed Layout - 2026 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.96	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)
D3	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	406	100.000
2		✓	73	100.000
3		✓	61	100.000
4		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	123	80	200
	2	69	0	4	0
	3	43	6	1	11
	4	112	0	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	52	12	4	13
	2	21	0	0	0
	3	0	0	0	9
	4	22	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.34	4.56	0.6	A
2	0.05	2.60	0.1	A
3	0.06	3.27	0.1	A
4	0.09	3.12	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	306	10	1326	0.231	304	0.3	3.908	A
2	55	217	1800	0.031	55	0.0	2.467	A
3	46	204	1235	0.037	46	0.0	3.073	A
4	89	92	1549	0.057	89	0.1	2.974	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	365	12	1325	0.276	365	0.4	4.161	A
2	66	260	1772	0.037	66	0.0	2.523	A
3	55	244	1213	0.045	55	0.0	3.155	A
4	106	110	1538	0.069	106	0.1	3.032	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	14	1323	0.338	446	0.6	4.554	A
2	80	319	1733	0.046	80	0.1	2.604	A
3	67	299	1183	0.057	67	0.1	3.273	A
4	130	134	1524	0.085	130	0.1	3.115	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	14	1323	0.338	447	0.6	4.559	A
2	80	319	1733	0.046	80	0.1	2.605	A
3	67	299	1183	0.057	67	0.1	3.274	A
4	130	134	1524	0.085	130	0.1	3.115	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	365	12	1325	0.276	366	0.4	4.170	A
2	66	261	1771	0.037	66	0.0	2.526	A
3	55	245	1212	0.045	55	0.0	3.158	A
4	106	110	1538	0.069	106	0.1	3.035	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	306	10	1326	0.231	306	0.3	3.921	A
2	55	219	1799	0.031	55	0.0	2.470	A
3	46	205	1234	0.037	46	0.0	3.075	A
4	89	92	1549	0.057	89	0.1	2.977	A

Site 1 - Proposed Layout - 2026 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.01	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)
D4	2026 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	159	100.000
2		✓	109	100.000
3		✓	59	100.000
4		✓	177	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	42	43	68
	2	104	0	5	0
	3	53	2	0	4
	4	168	0	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	21	18	5	15
	2	9	0	0	0
	3	0	0	0	25
	4	8	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.13	3.54	0.2	A
2	0.06	2.26	0.1	A
3	0.05	3.11	0.1	A
4	0.13	2.98	0.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	8	1327	0.090	119	0.1	3.371	A
2	82	95	1881	0.044	82	0.0	2.171	A
3	44	134	1272	0.035	44	0.0	2.971	A
4	133	124	1530	0.087	133	0.1	2.772	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	143	10	1326	0.108	143	0.1	3.440	A
2	98	113	1869	0.052	98	0.1	2.206	A
3	53	160	1258	0.042	53	0.0	3.027	A
4	159	148	1515	0.105	159	0.1	2.854	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	175	12	1325	0.132	175	0.2	3.539	A
2	120	139	1852	0.065	120	0.1	2.255	A
3	65	196	1239	0.052	65	0.1	3.108	A
4	195	182	1495	0.130	195	0.2	2.976	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	175	12	1325	0.132	175	0.2	3.539	A
2	120	139	1852	0.065	120	0.1	2.255	A
3	65	196	1239	0.052	65	0.1	3.108	A
4	195	182	1495	0.130	195	0.2	2.976	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	143	10	1326	0.108	143	0.1	3.440	A
2	98	113	1869	0.052	98	0.1	2.208	A
3	53	160	1258	0.042	53	0.0	3.027	A
4	159	148	1515	0.105	159	0.1	2.855	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	8	1327	0.090	120	0.1	3.374	A
2	82	95	1881	0.044	82	0.0	2.174	A
3	44	134	1272	0.035	44	0.0	2.974	A
4	133	124	1530	0.087	133	0.1	2.773	A

Site 1 - Proposed Layout - 2031 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.99	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)
D5	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	412	100.000
2		✓	73	100.000
3		✓	64	100.000
4		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	123	86	200
	2	69	0	4	0
	3	46	6	1	11
	4	112	0	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	55	12	4	13
	2	21	0	0	0
	3	0	0	0	9
	4	22	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.34	4.59	0.6	A
2	0.05	2.61	0.1	A
3	0.06	3.28	0.1	A
4	0.09	3.12	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	310	10	1326	0.234	309	0.3	3.922	A
2	55	222	1797	0.031	55	0.0	2.471	A
3	48	204	1235	0.039	48	0.0	3.077	A
4	89	94	1548	0.057	89	0.1	2.976	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	370	12	1325	0.280	370	0.4	4.182	A
2	66	266	1768	0.037	66	0.0	2.528	A
3	58	244	1213	0.047	57	0.1	3.160	A
4	106	112	1537	0.069	106	0.1	3.035	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	454	14	1323	0.343	453	0.6	4.585	A
2	80	325	1729	0.046	80	0.1	2.611	A
3	70	299	1183	0.060	70	0.1	3.281	A
4	130	138	1522	0.085	130	0.1	3.120	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	454	14	1323	0.343	454	0.6	4.590	A
2	80	326	1729	0.046	80	0.1	2.611	A
3	70	299	1183	0.060	70	0.1	3.281	A
4	130	138	1522	0.085	130	0.1	3.120	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	370	12	1325	0.280	371	0.4	4.190	A
2	66	267	1768	0.037	66	0.0	2.529	A
3	58	245	1212	0.047	58	0.1	3.183	A
4	106	112	1537	0.069	106	0.1	3.036	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	310	10	1326	0.234	311	0.3	3.935	A
2	55	223	1796	0.031	55	0.0	2.472	A
3	48	205	1234	0.039	48	0.0	3.079	A
4	89	94	1547	0.057	89	0.1	2.979	A

Site 1 - Proposed Layout - 2031 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.03	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)
D6	2031 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	163	100.000
2		✓	109	100.000
3		✓	62	100.000
4		✓	177	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	42	47	68
	2	104	0	5	0
	3	56	2	0	4
	4	168	0	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	22	18	6	15
	2	9	0	0	0
	3	0	0	0	25
	4	8	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.14	3.56	0.2	A
2	0.06	2.26	0.1	A
3	0.06	3.11	0.1	A
4	0.13	2.98	0.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	8	1327	0.093	122	0.1	3.384	A
2	82	98	1879	0.044	82	0.0	2.174	A
3	47	134	1272	0.037	47	0.0	2.974	A
4	133	126	1528	0.087	133	0.1	2.774	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	147	10	1326	0.111	146	0.1	3.455	A
2	98	117	1866	0.053	98	0.1	2.209	A
3	56	160	1258	0.044	56	0.0	3.032	A
4	159	151	1514	0.105	159	0.1	2.858	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	179	12	1325	0.135	179	0.2	3.558	A
2	120	143	1849	0.065	120	0.1	2.259	A
3	68	196	1239	0.055	68	0.1	3.114	A
4	195	185	1494	0.130	195	0.2	2.981	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	179	12	1325	0.135	179	0.2	3.558	A
2	120	143	1849	0.065	120	0.1	2.259	A
3	68	196	1239	0.055	68	0.1	3.114	A
4	195	185	1493	0.130	195	0.2	2.981	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	147	10	1326	0.111	147	0.1	3.458	A
2	98	117	1866	0.053	98	0.1	2.209	A
3	56	160	1258	0.044	56	0.0	3.032	A
4	159	151	1514	0.105	159	0.1	2.861	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	8	1327	0.093	123	0.1	3.387	A
2	82	98	1879	0.044	82	0.0	2.176	A
3	47	134	1272	0.037	47	0.0	2.977	A
4	133	127	1528	0.087	133	0.1	2.777	A

Site 1 - Proposed Layout - 2041 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.02	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)
D7	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	418	100.000
2		✓	73	100.000
3		✓	67	100.000
4		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	3	123	92	200
	2	69	0	4	0
	3	49	6	1	11
	4	112	0	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	60	12	5	13
	2	21	0	0	0
	3	0	0	0	9
	4	22	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.35	4.63	0.6	A
2	0.05	2.62	0.1	A
3	0.06	3.29	0.1	A
4	0.09	3.12	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	315	10	1326	0.237	313	0.3	3.945	A
2	55	226	1794	0.031	55	0.0	2.475	A
3	50	204	1235	0.041	50	0.0	3.081	A
4	89	96	1546	0.057	89	0.1	2.979	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	376	12	1325	0.284	375	0.4	4.209	A
2	66	271	1765	0.037	66	0.0	2.534	A
3	60	244	1213	0.050	60	0.1	3.165	A
4	106	115	1535	0.069	106	0.1	3.038	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	460	14	1323	0.348	460	0.6	4.626	A
2	80	332	1725	0.047	80	0.1	2.618	A
3	74	299	1183	0.062	74	0.1	3.288	A
4	130	141	1520	0.085	130	0.1	3.124	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	460	14	1323	0.348	460	0.6	4.632	A
2	80	333	1724	0.047	80	0.1	2.618	A
3	74	299	1183	0.062	74	0.1	3.289	A
4	130	141	1520	0.085	130	0.1	3.124	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	376	12	1325	0.284	376	0.4	4.220	A
2	66	272	1764	0.037	66	0.0	2.536	A
3	60	245	1212	0.050	60	0.1	3.166	A
4	106	115	1535	0.069	106	0.1	3.039	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	315	10	1326	0.237	315	0.3	3.957	A
2	55	228	1793	0.031	55	0.0	2.478	A
3	50	205	1234	0.041	50	0.0	3.083	A
4	89	96	1546	0.057	89	0.1	2.980	A

Site 1 - Proposed Layout - 2041 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.04	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)
D8	2041 DO SOMETHING	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	166	100.000
2		✓	109	100.000
3		✓	65	100.000
4		✓	177	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	7	42	49	68
	2	104	0	5	0
	3	59	2	0	4
	4	168	0	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	24	18	6	15
	2	9	0	0	0
	3	0	0	0	25
	4	8	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.14	3.57	0.2	A
2	0.06	2.26	0.1	A
3	0.06	3.12	0.1	A
4	0.13	2.99	0.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	125	8	1327	0.094	125	0.1	3.391	A
2	82	100	1878	0.044	82	0.0	2.176	A
3	49	134	1272	0.038	49	0.0	2.979	A
4	133	129	1527	0.087	133	0.1	2.778	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	149	10	1326	0.113	149	0.1	3.463	A
2	98	119	1865	0.053	98	0.1	2.211	A
3	58	161	1258	0.046	58	0.0	3.038	A
4	159	155	1512	0.105	159	0.1	2.862	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	183	12	1325	0.138	183	0.2	3.569	A
2	120	146	1847	0.065	120	0.1	2.262	A
3	72	197	1238	0.058	72	0.1	3.123	A
4	195	189	1491	0.131	195	0.2	2.987	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	183	12	1325	0.138	183	0.2	3.569	A
2	120	146	1847	0.065	120	0.1	2.262	A
3	72	197	1238	0.058	72	0.1	3.123	A
4	195	189	1491	0.131	195	0.2	2.987	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	149	10	1326	0.113	149	0.1	3.467	A
2	98	120	1864	0.053	98	0.1	2.211	A
3	58	161	1258	0.046	58	0.0	3.041	A
4	159	155	1511	0.105	159	0.1	2.863	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	125	8	1327	0.094	125	0.1	3.392	A
2	82	100	1877	0.044	82	0.0	2.178	A
3	49	135	1272	0.038	49	0.0	2.982	A
4	133	130	1526	0.087	133	0.1	2.779	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

For sales and distribution information, program advice and maintenance, contact TRL Software:
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Filename: Site 2 - AM_PM.j10
Path: Q:\2016 Jobs\16_206A M1 Business Park - Zone A\Traffic\2. Junction Models\2. Site 2
Report generation date: 05/03/2024 10:31:17

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Site 2 - 2023 SURVEYED FLOWS									
Arm 2	D1	0.2	3.08	0.16	A	D2	0.3	3.23	0.24	A
Arm 3		0.4	4.21	0.25	A		0.7	5.05	0.41	A
Arm 4		0.0	3.11	0.04	A		0.1	3.80	0.07	A
	Site 2 - 2024 DO NOTHING									
Arm 2	D3	0.2	3.10	0.16	A	D4	0.3	3.26	0.25	A
Arm 3		0.4	4.29	0.26	A		0.7	5.19	0.42	A
Arm 4		0.0	3.13	0.04	A		0.1	3.85	0.07	A
	Site 2 - 2026 DO NOTHING									
Arm 2	D5	0.2	3.12	0.17	A	D6	0.4	3.29	0.25	A
Arm 3		0.4	4.37	0.27	A		0.8	5.38	0.43	A
Arm 4		0.0	3.17	0.04	A		0.1	3.93	0.07	A
	Site 2 - 2031 DO NOTHING									
Arm 2	D7	0.3	3.20	0.18	A	D8	0.4	3.41	0.27	A
Arm 3		0.5	4.64	0.30	A		0.9	5.89	0.47	A
Arm 4		0.0	3.27	0.04	A		0.1	4.16	0.08	A
	Site 2 - 2041 DO NOTHING									
Arm 2	D9	0.3	3.31	0.19	A	D10	0.4	3.49	0.29	A
Arm 3		0.6	4.95	0.33	A		1.1	6.46	0.51	A
Arm 4		0.1	3.38	0.05	A		0.1	4.36	0.09	A
	Site 2 - 2024 DO SOMETHING									
Arm 2	D11	0.2	3.14	0.17	A	D12	0.4	3.32	0.25	A
Arm 3		0.4	4.39	0.27	A		0.8	5.38	0.43	A
Arm 4		0.1	3.76	0.06	A		0.1	4.22	0.09	A
	Site 2 - 2026 DO SOMETHING									
Arm 2	D13	0.4	3.45	0.25	A	D14	0.4	3.46	0.28	A
Arm 3		1.0	6.27	0.47	A		1.1	6.38	0.50	A
Arm 4		0.3	4.52	0.21	A		0.6	6.24	0.38	A
	Site 2 - 2031 DO SOMETHING									
Arm 2	D15	0.4	3.54	0.26	A	D16	0.5	3.58	0.30	A
Arm 3		1.2	6.79	0.50	A		1.3	7.11	0.55	A
Arm 4		0.3	4.69	0.22	A		0.7	6.78	0.40	A
	Site 2 - 2041 DO SOMETHING									
Arm 2	D17	0.4	3.60	0.28	A	D18	0.5	3.67	0.32	A
Arm 3		1.3	7.36	0.53	A		1.5	7.86	0.59	A
Arm 4		0.3	4.87	0.23	A		0.8	7.30	0.42	A

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

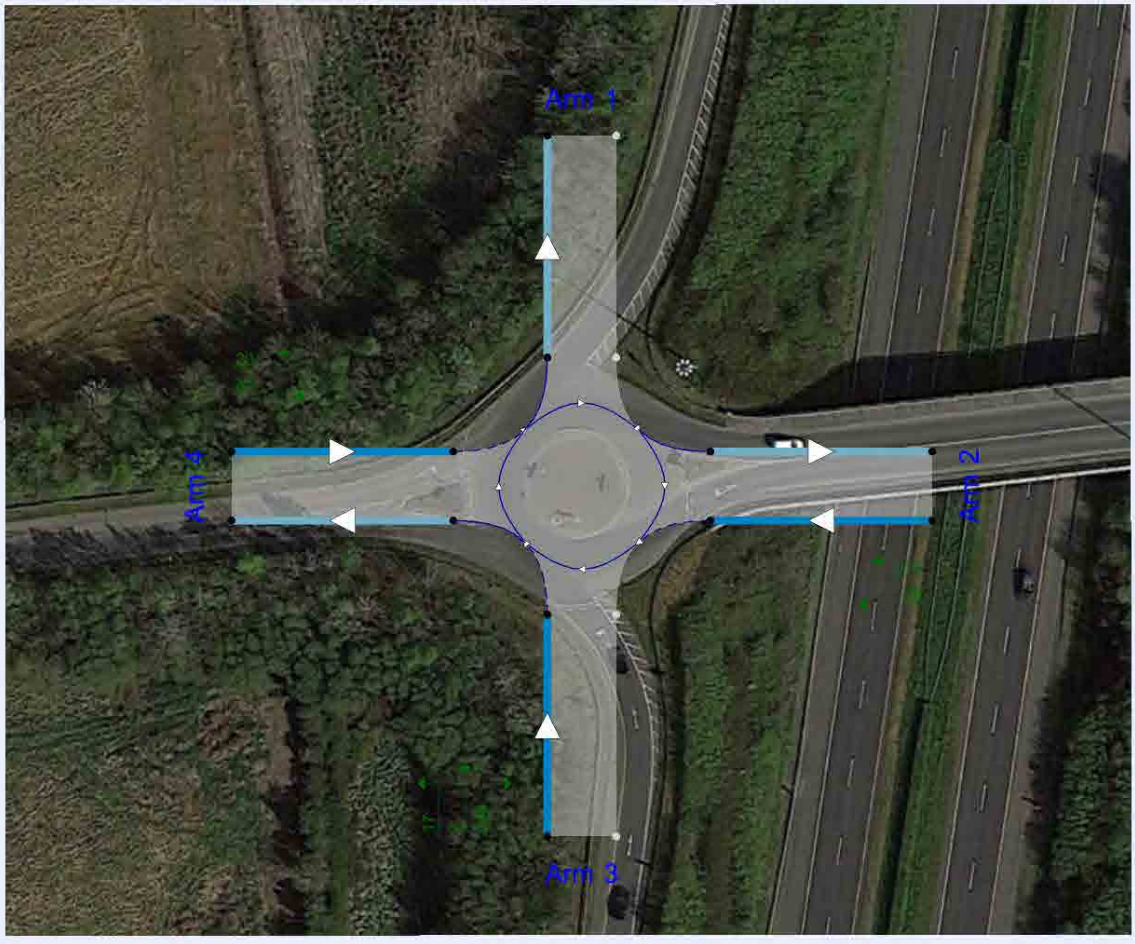
File summary

File Description

Title	
Location	
Site number	
Date	07/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\fernando.figueiredo
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:30	18:00	15
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D4	2024 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D6	2026 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D8	2031 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D10	2041 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D11	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D12	2024 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D13	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D14	2026 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D15	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D16	2031 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D17	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D18	2041 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

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

Site 2 - 2023 SURVEYED FLOWS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.69	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled	M1 Northbound On Slip (N)	
2	untitled	L1140 (E)	
3	untitled	M1 Northbound Off Slip (S)	
4	untitled	L1140 (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1								✓
2	4.49	5.65	2.9	21.1	34.0	20.0		
3	4.45	5.25	3.0	26.1	34.0	31.0	✓	
4	3.72	6.35	8.6	39.5	34.0	36.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1		
2	0.638	1571
3	0.613	1491
4	0.620	1534

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	224	100.000
3		✓	309	100.000
4		✓	42	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	190	6	0	28
	3	1	287	0	21
	4	8	34	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	15	0	0	7
	3	0	18	0	5
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.16	3.08	0.2	A
3	0.25	4.21	0.4	A
4	0.04	3.11	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		245						
2	169	0	1571	0.107	168	0.1	2.912	A
3	233	168	1388	0.168	232	0.2	3.637	A
4	32	363	1309	0.024	32	0.0	2.817	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		294						
2	201	0	1571	0.128	201	0.2	2.981	A
3	278	201	1368	0.203	278	0.3	3.691	A
4	38	435	1265	0.030	38	0.0	2.933	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		360						
2	247	0	1571	0.157	246	0.2	3.083	A
3	340	246	1340	0.254	340	0.4	4.208	A
4	46	532	1204	0.038	46	0.0	3.108	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		360						
2	247	0	1571	0.157	247	0.2	3.083	A
3	340	247	1340	0.254	340	0.4	4.211	A
4	46	533	1204	0.038	46	0.0	3.109	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		294						
2	201	0	1571	0.128	202	0.2	2.985	A
3	278	202	1367	0.203	278	0.3	3.867	A
4	38	436	1264	0.030	38	0.0	2.935	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		246						
2	169	0	1571	0.107	169	0.1	2.915	A
3	233	169	1387	0.168	233	0.2	3.649	A
4	32	365	1308	0.024	32	0.0	2.822	A

Site 2 - 2023 SURVEYED FLOWS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.24	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)
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	343	100.000
3		✓	465	100.000
4		✓	61	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	314	0	0	29
	3	2	446	0	17
	4	20	41	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	8	0	0	0
	3	0	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.24	3.23	0.3	A
3	0.41	5.05	0.7	A
4	0.07	3.80	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		365						
2	258	0	1571	0.164	257	0.2	2.938	A
3	350	257	1333	0.263	349	0.4	3.827	A
4	46	571	1180	0.039	46	0.0	3.174	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		437						
2	308	0	1571	0.196	308	0.3	3.057	A
3	418	308	1302	0.321	418	0.5	4.263	A
4	55	684	1110	0.049	55	0.1	3.411	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		535						
2	378	0	1571	0.240	377	0.3	3.235	A
3	512	377	1260	0.406	511	0.7	5.033	A
4	67	838	1014	0.066	67	0.1	3.799	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		536						
2	378	0	1571	0.240	378	0.3	3.235	A
3	512	378	1259	0.407	512	0.7	5.046	A
4	67	839	1014	0.066	67	0.1	3.802	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		439						
2	308	0	1571	0.196	309	0.3	3.061	A
3	418	309	1302	0.321	419	0.5	4.278	A
4	55	686	1109	0.049	55	0.1	3.418	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		367						
2	258	0	1571	0.164	258	0.2	2.944	A
3	350	258	1333	0.263	351	0.4	3.843	A
4	46	574	1178	0.039	46	0.0	3.182	A

Site 2 - 2024 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.74	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)
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	229	100.000
3		✓	315	100.000
4		✓	43	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	194	6	0	29
	3	1	293	0	21
	4	8	35	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	15	0	0	8
	3	0	19	0	5
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.16	3.10	0.2	A
3	0.26	4.29	0.4	A
4	0.04	3.13	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		250						
2	172	0	1571	0.110	172	0.1	2.921	A
3	237	172	1386	0.171	236	0.2	3.688	A
4	32	371	1304	0.025	32	0.0	2.829	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		300						
2	206	0	1571	0.131	206	0.2	2.995	A
3	283	206	1365	0.207	283	0.3	3.921	A
4	39	444	1259	0.031	39	0.0	2.949	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		367						
2	252	0	1571	0.160	252	0.2	3.100	A
3	347	252	1336	0.260	346	0.4	4.284	A
4	47	543	1197	0.040	47	0.0	3.130	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		368						
2	252	0	1571	0.160	252	0.2	3.100	A
3	347	252	1336	0.260	347	0.4	4.288	A
4	47	544	1197	0.040	47	0.0	3.131	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		301						
2	206	0	1571	0.131	206	0.2	2.998	A
3	283	206	1365	0.208	284	0.3	3.926	A
4	39	445	1258	0.031	39	0.0	2.950	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		252						
2	172	0	1571	0.110	173	0.1	2.924	A
3	237	173	1385	0.171	237	0.2	3.697	A
4	32	372	1303	0.025	32	0.0	2.832	A

Site 2 - 2024 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.33	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)
D4	2024 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	350	100.000
3		✓	474	100.000
4		✓	62	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	320	0	0	30
	3	2	455	0	17
	4	20	42	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	8	0	0	0
	3	0	6	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.25	3.26	0.3	A
3	0.42	5.19	0.7	A
4	0.07	3.85	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		373						
2	263	0	1571	0.168	263	0.2	2.950	A
3	357	263	1330	0.268	355	0.4	3.894	A
4	47	583	1173	0.040	47	0.0	3.196	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		446						
2	315	0	1571	0.200	314	0.3	3.072	A
3	426	314	1298	0.328	426	0.5	4.359	A
4	56	698	1101	0.051	56	0.1	3.442	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		546						
2	385	0	1571	0.245	385	0.3	3.255	A
3	522	385	1255	0.416	521	0.7	5.180	A
4	68	854	1004	0.068	68	0.1	3.845	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		547						
2	385	0	1571	0.245	385	0.3	3.255	A
3	522	385	1255	0.416	522	0.7	5.194	A
4	68	855	1004	0.068	68	0.1	3.848	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		448						
2	315	0	1571	0.200	315	0.3	3.074	A
3	426	315	1298	0.328	427	0.5	4.377	A
4	56	700	1100	0.051	56	0.1	3.446	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		375						
2	263	0	1571	0.168	264	0.2	2.955	A
3	357	264	1329	0.268	357	0.4	3.920	A
4	47	586	1171	0.040	47	0.0	3.204	A

Site 2 - 2026 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.80	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)
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	238	100.000
3		✓	327	100.000
4		✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	202	6	0	30
	3	1	304	0	22
	4	8	36	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	15	0	0	8
	3	0	19	0	5
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.17	3.12	0.2	A
3	0.27	4.37	0.4	A
4	0.04	3.17	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		259						
2	179	0	1571	0.114	179	0.1	2.936	A
3	246	179	1381	0.178	245	0.3	3.731	A
4	33	385	1296	0.026	33	0.0	2.850	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		311						
2	214	0	1571	0.136	214	0.2	3.013	A
3	294	214	1360	0.216	294	0.3	3.979	A
4	40	461	1248	0.032	40	0.0	2.977	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		381						
2	262	0	1571	0.167	262	0.2	3.124	A
3	360	262	1330	0.271	360	0.4	4.369	A
4	48	564	1184	0.041	48	0.0	3.168	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		381						
2	262	0	1571	0.167	262	0.2	3.124	A
3	360	262	1330	0.271	360	0.4	4.373	A
4	48	565	1184	0.041	48	0.0	3.169	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		311						
2	214	0	1571	0.136	214	0.2	3.014	A
3	294	214	1360	0.216	294	0.3	3.984	A
4	40	462	1248	0.032	40	0.0	2.979	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		261						
2	179	0	1571	0.114	179	0.1	2.939	A
3	246	179	1381	0.178	246	0.3	3.743	A
4	33	387	1294	0.026	33	0.0	2.855	A

Site 2 - 2026 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.45	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)
D6	2026 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	361	100.000
3		✓	490	100.000
4		✓	64	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	331	0	0	30
	3	2	470	0	18
	4	21	43	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	8	0	0	0
	3	0	6	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.25	3.29	0.4	A
3	0.43	5.38	0.8	A
4	0.07	3.93	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		385						
2	272	0	1571	0.173	271	0.2	2.969	A
3	369	271	1325	0.278	367	0.4	3.969	A
4	48	602	1161	0.042	48	0.0	3.235	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		461						
2	325	0	1571	0.207	324	0.3	3.097	A
3	440	324	1292	0.341	440	0.5	4.464	A
4	58	721	1087	0.053	57	0.1	3.496	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		564						
2	397	0	1571	0.253	397	0.4	3.290	A
3	540	397	1247	0.432	538	0.8	5.361	A
4	70	883	987	0.071	70	0.1	3.929	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		565						
2	397	0	1571	0.253	397	0.4	3.290	A
3	540	397	1247	0.433	539	0.8	5.377	A
4	70	884	986	0.071	70	0.1	3.932	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		462						
2	325	0	1571	0.207	325	0.3	3.101	A
3	440	325	1292	0.341	442	0.6	4.483	A
4	58	723	1086	0.053	58	0.1	3.504	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		387						
2	272	0	1571	0.173	272	0.2	2.972	A
3	369	272	1324	0.279	369	0.4	3.999	A
4	48	605	1159	0.042	48	0.0	3.241	A

Site 2 - 2031 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.98	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)
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	259	100.000
3		✓	357	100.000
4		✓	47	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	220	7	0	32
	3	1	333	0	23
	4	9	38	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	16	0	0	8
	3	0	20	0	6
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.18	3.20	0.3	A
3	0.30	4.64	0.5	A
4	0.04	3.27	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		283						
2	195	0	1571	0.124	194	0.2	2.991	A
3	269	194	1372	0.196	268	0.3	3.873	A
4	35	421	1273	0.028	35	0.0	2.907	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		339						
2	233	0	1571	0.148	233	0.2	3.078	A
3	321	233	1348	0.238	321	0.4	4.165	A
4	42	504	1222	0.035	42	0.0	3.051	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		416						
2	285	0	1571	0.182	285	0.3	3.203	A
3	393	285	1316	0.299	393	0.5	4.633	A
4	52	617	1152	0.045	52	0.0	3.272	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		416						
2	285	0	1571	0.182	285	0.3	3.203	A
3	393	285	1316	0.299	393	0.5	4.637	A
4	52	618	1151	0.045	52	0.0	3.273	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		340						
2	233	0	1571	0.148	233	0.2	3.079	A
3	321	233	1348	0.238	321	0.4	4.172	A
4	42	505	1221	0.035	42	0.0	3.056	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		285						
2	195	0	1571	0.124	195	0.2	2.994	A
3	269	195	1371	0.196	269	0.3	3.896	A
4	35	423	1272	0.028	35	0.0	2.910	A

Site 2 - 2031 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.79	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)
D8	2031 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	391	100.000
3		✓	528	100.000
4		✓	69	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	358	0	0	33
	3	2	507	0	19
	4	23	46	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	9	0	0	0
	3	0	6	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.27	3.41	0.4	A
3	0.47	5.89	0.9	A
4	0.08	4.16	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		414						
2	294	0	1571	0.187	293	0.2	3.048	A
3	398	293	1311	0.303	396	0.5	4.150	A
4	52	650	1131	0.046	52	0.0	3.335	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		496						
2	352	0	1571	0.224	351	0.3	3.192	A
3	475	351	1276	0.372	474	0.6	4.745	A
4	62	779	1051	0.059	62	0.1	3.638	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		608						
2	430	0	1571	0.274	430	0.4	3.413	A
3	581	430	1227	0.474	580	0.9	5.870	A
4	76	953	943	0.081	76	0.1	4.151	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		609						
2	430	0	1571	0.274	430	0.4	3.413	A
3	581	430	1227	0.474	581	0.9	5.895	A
4	76	955	942	0.081	76	0.1	4.156	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		498						
2	352	0	1571	0.224	352	0.3	3.196	A
3	475	352	1275	0.372	476	0.6	4.769	A
4	62	781	1050	0.059	62	0.1	3.644	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		417						
2	294	0	1571	0.187	295	0.3	3.050	A
3	398	295	1310	0.303	398	0.5	4.178	A
4	52	654	1129	0.046	52	0.0	3.342	A

Site 2 - 2041 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.20	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)
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	278	100.000
3		✓	386	100.000
4		✓	50	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	237	7	0	34
	3	1	360	0	25
	4	10	40	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	18	0	0	9
	3	0	22	0	6
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.19	3.31	0.3	A
3	0.33	4.95	0.6	A
4	0.05	3.38	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		305						
2	209	0	1571	0.133	209	0.2	3.071	A
3	291	209	1363	0.213	289	0.3	4.043	A
4	38	454	1253	0.030	38	0.0	2.961	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		366						
2	250	0	1571	0.159	250	0.2	3.168	A
3	347	250	1338	0.259	347	0.4	4.386	A
4	45	543	1197	0.038	45	0.0	3.123	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		447						
2	306	0	1571	0.195	306	0.3	3.308	A
3	425	306	1303	0.326	424	0.6	4.942	A
4	55	665	1122	0.049	55	0.1	3.374	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		448						
2	306	0	1571	0.195	306	0.3	3.308	A
3	425	306	1303	0.326	425	0.6	4.948	A
4	55	666	1121	0.049	55	0.1	3.376	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		367						
2	250	0	1571	0.159	250	0.2	3.171	A
3	347	250	1338	0.259	348	0.4	4.395	A
4	45	545	1196	0.038	45	0.0	3.128	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		307						
2	209	0	1571	0.133	209	0.2	3.076	A
3	291	209	1363	0.213	291	0.3	4.058	A
4	38	456	1251	0.030	38	0.0	2.965	A

Site 2 - 2041 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.14	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.14	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)
D10	2041 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	415	100.000
3		✓	560	100.000
4		✓	73	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	381	0	0	34
	3	2	538	0	20
	4	24	49	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	9	0	0	0
	3	0	7	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.29	3.49	0.4	A
3	0.51	6.46	1.1	A
4	0.09	4.36	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		440						
2	312	0	1571	0.199	311	0.3	3.089	A
3	422	311	1300	0.324	420	0.5	4.353	A
4	55	690	1106	0.050	55	0.1	3.424	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		527						
2	373	0	1571	0.237	373	0.3	3.250	A
3	503	373	1262	0.399	503	0.7	5.051	A
4	66	827	1021	0.064	66	0.1	3.766	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		645						
2	457	0	1571	0.291	456	0.4	3.495	A
3	617	456	1211	0.509	615	1.1	6.427	A
4	80	1012	906	0.089	80	0.1	4.358	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		646						
2	457	0	1571	0.291	457	0.4	3.495	A
3	617	457	1211	0.509	617	1.1	6.463	A
4	80	1014	905	0.089	80	0.1	4.364	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		529						
2	373	0	1571	0.237	373	0.3	3.252	A
3	503	373	1262	0.399	505	0.7	5.086	A
4	66	830	1019	0.064	66	0.1	3.777	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		443						
2	312	0	1571	0.199	313	0.3	3.095	A
3	422	313	1299	0.325	422	0.5	4.396	A
4	55	694	1103	0.050	55	0.1	3.435	A

Site 2 - 2024 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.85	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)
D11	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	240	100.000
3		✓	326	100.000
4		✓	65	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	194	6	0	40
	3	1	293	0	32
	4	17	48	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	15	0	0	11
	3	0	19	0	12
	4	19	17	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.17	3.14	0.2	A
3	0.27	4.39	0.4	A
4	0.06	3.76	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		260						
2	181	0	1571	0.115	180	0.1	2.945	A
3	245	180	1381	0.178	244	0.3	3.742	A
4	49	371	1304	0.038	49	0.0	3.368	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		312						
2	216	0	1571	0.137	216	0.2	3.024	A
3	293	216	1359	0.216	293	0.3	3.991	A
4	58	444	1259	0.046	58	0.1	3.522	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		382						
2	264	0	1571	0.168	264	0.2	3.136	A
3	359	264	1329	0.270	358	0.4	4.382	A
4	72	543	1197	0.060	71	0.1	3.757	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		382						
2	264	0	1571	0.168	264	0.2	3.136	A
3	359	264	1329	0.270	359	0.4	4.386	A
4	72	544	1197	0.060	72	0.1	3.758	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		312						
2	216	0	1571	0.137	216	0.2	3.027	A
3	293	216	1359	0.216	294	0.3	3.996	A
4	58	445	1258	0.046	59	0.1	3.525	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		262						
2	181	0	1571	0.115	181	0.1	2.948	A
3	245	181	1380	0.178	246	0.3	3.754	A
4	49	372	1303	0.038	49	0.0	3.374	A

Site 2 - 2024 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.47	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)
D12	2024 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	361	100.000
3		✓	486	100.000
4		✓	86	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	320	0	0	41
	3	2	455	0	29
	4	30	56	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	8	0	0	10
	3	0	6	0	13
	4	6	7	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.25	3.32	0.4	A
3	0.43	5.38	0.8	A
4	0.09	4.22	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		383						
2	272	0	1571	0.173	271	0.2	2.995	A
3	366	271	1325	0.276	364	0.4	3.980	A
4	65	583	1173	0.055	64	0.1	3.464	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		459						
2	325	0	1571	0.207	324	0.3	3.124	A
3	437	324	1292	0.338	436	0.5	4.471	A
4	77	698	1101	0.070	77	0.1	3.748	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		562						
2	397	0	1571	0.253	397	0.4	3.318	A
3	535	397	1247	0.429	534	0.8	5.360	A
4	95	854	1004	0.094	95	0.1	4.220	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		563						
2	397	0	1571	0.253	397	0.4	3.318	A
3	535	397	1247	0.429	535	0.8	5.376	A
4	95	855	1004	0.094	95	0.1	4.224	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		460						
2	325	0	1571	0.207	325	0.3	3.128	A
3	437	325	1292	0.338	438	0.5	4.489	A
4	77	700	1100	0.070	77	0.1	3.756	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		385						
2	272	0	1571	0.173	272	0.2	4.998	A
3	366	272	1324	0.276	366	0.4	4.000	A
4	65	586	1171	0.055	65	0.1	3.473	A

Site 2 - 2026 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.01	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)
D13	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	357	100.000
3		✓	531	100.000
4		✓	226	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	202	6	0	149
	3	1	304	0	226
	4	47	179	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	15	0	0	11
	3	0	19	0	12
	4	19	17	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.25	3.45	0.4	A
3	0.47	6.27	1.0	A
4	0.21	4.52	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		366						
2	269	0	1571	0.171	268	0.2	3.120	A
3	400	268	1327	0.301	398	0.5	4.482	A
4	170	385	1296	0.131	169	0.2	3.751	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		439						
2	321	0	1571	0.204	321	0.3	3.253	A
3	477	321	1294	0.369	477	0.7	5.097	A
4	203	461	1249	0.163	203	0.2	4.043	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		537						
2	393	0	1571	0.250	393	0.4	3.452	A
3	585	393	1250	0.468	583	1.0	6.242	A
4	249	564	1184	0.210	248	0.3	4.515	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		538						
2	393	0	1571	0.250	393	0.4	3.452	A
3	585	393	1250	0.468	585	1.0	6.269	A
4	249	565	1184	0.210	249	0.3	4.520	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		441						
2	321	0	1571	0.204	321	0.3	3.255	A
3	477	321	1294	0.369	479	0.7	5.124	A
4	203	462	1248	0.163	203	0.2	4.049	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		369						
2	269	0	1571	0.171	269	0.2	3.126	A
3	400	269	1326	0.301	400	0.5	4.512	A
4	170	387	1294	0.131	170	0.2	3.763	A

Site 2 - 2026 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.44	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)
D14	2026 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	402	100.000
3		✓	559	100.000
4		✓	336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	331	0	0	71
	3	2	470	0	87
	4	78	258	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	8	0	0	10
	3	0	6	0	13
	4	6	7	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.28	3.46	0.4	A
3	0.50	6.38	1.1	A
4	0.38	6.24	0.6	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		545						
2	303	0	1571	0.193	302	0.3	3.069	A
3	421	302	1306	0.322	419	0.5	4.332	A
4	253	602	1161	0.218	252	0.3	4.223	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		653						
2	361	0	1571	0.230	361	0.3	3.223	A
3	503	361	1270	0.396	502	0.7	5.012	A
4	302	721	1087	0.278	302	0.4	4.892	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		800						
2	443	0	1571	0.282	442	0.4	3.455	A
3	615	442	1220	0.505	614	1.1	6.343	A
4	370	883	987	0.375	369	0.6	6.213	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		802						
2	443	0	1571	0.282	443	0.4	3.455	A
3	615	443	1220	0.505	615	1.1	6.375	A
4	370	884	986	0.375	370	0.6	6.240	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		656						
2	361	0	1571	0.230	362	0.3	3.225	A
3	503	362	1269	0.396	504	0.7	5.044	A
4	302	723	1085	0.278	303	0.4	4.919	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		549						
2	303	0	1571	0.193	303	0.3	3.077	A
3	421	303	1305	0.322	422	0.5	4.364	A
4	253	605	1159	0.218	253	0.3	4.249	A

Site 2 - 2031 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.33	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)
D15	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	378	100.000
3		✓	561	100.000
4		✓	228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	220	7	0	151
	3	1	333	0	227
	4	47	181	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	16	0	0	11
	3	0	20	0	12
	4	18	17	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.26	3.54	0.4	A
3	0.50	6.79	1.2	A
4	0.22	4.69	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		390						
2	285	0	1571	0.181	284	0.3	3.177	A
3	422	284	1317	0.321	420	0.5	4.668	A
4	172	420	1273	0.135	171	0.2	3.825	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		468						
2	340	0	1571	0.216	340	0.3	3.321	A
3	504	340	1283	0.393	504	0.7	5.380	A
4	205	504	1222	0.168	205	0.2	4.147	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		572						
2	416	0	1571	0.265	416	0.4	3.540	A
3	618	416	1236	0.500	616	1.1	6.752	A
4	251	616	1152	0.218	251	0.3	4.680	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		574						
2	416	0	1571	0.265	416	0.4	3.540	A
3	618	416	1236	0.500	618	1.2	6.789	A
4	251	618	1151	0.218	251	0.3	4.687	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		470						
2	340	0	1571	0.216	340	0.3	3.325	A
3	504	340	1282	0.393	506	0.8	5.415	A
4	205	505	1221	0.168	205	0.2	4.156	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		393						
2	285	0	1571	0.181	285	0.3	3.179	A
3	422	285	1316	0.321	423	0.6	4.703	A
4	172	423	1272	0.135	172	0.2	3.838	A

Site 2 - 2031 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.92	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)
D16	2031 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	431	100.000
3		✓	598	100.000
4		✓	341	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	358	0	0	73
	3	2	507	0	89
	4	80	261	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	9	0	0	9
	3	0	6	0	13
	4	6	7	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.30	3.58	0.5	A
3	0.55	7.11	1.3	A
4	0.40	6.78	0.7	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		575						
2	324	0	1571	0.207	323	0.3	3.142	A
3	450	323	1293	0.348	448	0.6	4.547	A
4	257	650	1131	0.227	255	0.3	4.383	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		689						
2	387	0	1571	0.247	387	0.4	3.314	A
3	538	387	1254	0.429	537	0.8	5.365	A
4	307	778	1051	0.292	306	0.4	5.153	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		843						
2	475	0	1571	0.302	474	0.5	3.574	A
3	658	474	1200	0.549	656	1.3	7.055	A
4	375	953	943	0.398	374	0.7	6.743	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		846						
2	475	0	1571	0.302	475	0.5	3.577	A
3	658	475	1200	0.549	658	1.3	7.108	A
4	375	955	942	0.399	375	0.7	6.782	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		693						
2	387	0	1571	0.247	388	0.4	3.319	A
3	538	388	1253	0.429	539	0.8	5.409	A
4	307	781	1049	0.292	308	0.4	5.187	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		579						
2	324	0	1571	0.207	325	0.3	3.150	A
3	450	325	1292	0.349	451	0.6	4.597	A
4	257	654	1129	0.227	257	0.3	4.414	A

Site 2 - 2041 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.66	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)
D17	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	397	100.000
3		✓	590	100.000
4		✓	231	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	237	7	0	153
	3	1	360	0	229
	4	48	183	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	17	0	0	9
	3	0	21	0	12
	4	18	17	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.28	3.60	0.4	A
3	0.53	7.36	1.3	A
4	0.23	4.87	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		412						
2	299	0	1571	0.190	298	0.3	3.204	A
3	444	298	1308	0.340	442	0.6	4.862	A
4	174	453	1253	0.139	173	0.2	3.905	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		494						
2	357	0	1571	0.227	357	0.3	3.362	A
3	530	357	1272	0.417	529	0.8	5.677	A
4	208	543	1197	0.173	207	0.2	4.261	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		604						
2	437	0	1571	0.278	437	0.4	3.600	A
3	650	437	1223	0.531	648	1.3	7.311	A
4	254	665	1122	0.227	254	0.3	4.859	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		606						
2	437	0	1571	0.278	437	0.4	3.600	A
3	650	437	1223	0.531	650	1.3	7.363	A
4	254	666	1121	0.227	254	0.3	4.867	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		496						
2	357	0	1571	0.227	357	0.3	3.365	A
3	530	357	1272	0.417	532	0.8	5.723	A
4	208	545	1196	0.174	208	0.2	4.272	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		415						
2	299	0	1571	0.190	299	0.3	3.210	A
3	444	299	1308	0.340	445	0.6	4.991	A
4	174	456	1251	0.139	174	0.2	3.919	A

Site 2 - 2041 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.39	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)
D18	2041 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1				
2		✓	456	100.000
3		✓	630	100.000
4		✓	344	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	381	0	0	75
	3	2	538	0	90
	4	81	263	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	9	0	0	9
	3	0	6	0	13
	4	6	7	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1				
2	0.32	3.67	0.5	A
3	0.59	7.86	1.5	A
4	0.42	7.30	0.8	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		600						
2	343	0	1571	0.219	342	0.3	3.190	A
3	474	342	1281	0.370	472	0.6	4.742	A
4	259	690	1106	0.234	258	0.3	4.524	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		719						
2	410	0	1571	0.261	410	0.4	3.378	A
3	566	410	1240	0.457	565	0.9	5.697	A
4	309	827	1021	0.303	309	0.5	5.390	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		879						
2	502	0	1571	0.320	502	0.5	3.666	A
3	694	502	1183	0.586	691	1.5	7.783	A
4	379	1012	907	0.418	378	0.8	7.247	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		882						
2	502	0	1571	0.320	502	0.5	3.669	A
3	694	502	1183	0.586	694	1.5	7.860	A
4	379	1014	905	0.418	379	0.8	7.299	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		723						
2	410	0	1571	0.261	410	0.4	3.381	A
3	566	410	1239	0.457	569	0.9	5.761	A
4	309	830	1019	0.303	310	0.5	5.431	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1		604						
2	343	0	1571	0.219	344	0.3	3.199	A
3	474	344	1280	0.370	475	0.6	4.790	A
4	259	695	1103	0.235	260	0.3	4.557	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

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

Filename: Site 3 - AM_PM.j10
Path: Q:\2016 Jobs\16_206A M1 Business Park - Zone A\Traffic\2. Junction Models\3. Site 3
Report generation date: 05/03/2024 10:32:51

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Site 3 - 2023 SURVEYED FLOWS									
Arm 1	D1	0.4	4.22	0.26	A	D2	0.2	4.09	0.16	A
Arm 2		0.6	3.46	0.37	A		0.6	3.21	0.35	A
Arm 4		0.3	3.33	0.23	A		0.5	3.50	0.33	A
	Site 3 - 2024 DO NOTHING									
Arm 1	D3	0.4	4.31	0.26	A	D4	0.2	4.13	0.16	A
Arm 2		0.7	3.50	0.38	A		0.6	3.24	0.35	A
Arm 4		0.4	3.38	0.23	A		0.5	3.53	0.34	A
	Site 3 - 2026 DO NOTHING									
Arm 1	D5	0.4	4.41	0.28	A	D6	0.2	4.20	0.17	A
Arm 2		0.7	3.58	0.39	A		0.6	3.31	0.37	A
Arm 4		0.4	3.42	0.24	A		0.6	3.59	0.35	A
	Site 3 - 2031 DO NOTHING									
Arm 1	D7	0.5	4.71	0.30	A	D8	0.3	4.45	0.19	A
Arm 2		0.8	3.84	0.42	A		0.7	3.50	0.40	A
Arm 4		0.4	3.55	0.26	A		0.6	3.76	0.38	A
	Site 3 - 2041 DO NOTHING									
Arm 1	D9	0.6	5.03	0.33	A	D10	0.3	4.69	0.20	A
Arm 2		0.9	4.11	0.46	A		0.8	3.68	0.42	A
Arm 4		0.5	3.70	0.28	A		0.7	3.95	0.40	A
	Site 3 - 2024 DO SOMETHING									
Arm 1	D11	0.4	4.40	0.27	A	D12	0.2	4.23	0.17	A
Arm 2		0.7	3.56	0.38	A		0.6	3.31	0.36	A
Arm 4		0.4	3.41	0.24	A		0.6	3.57	0.35	A
	Site 3 - 2026 DO SOMETHING									
Arm 1	D13	0.6	5.45	0.36	A	D14	0.3	5.14	0.22	A
Arm 2		0.9	4.38	0.46	A		0.7	3.91	0.41	A
Arm 4		0.6	3.96	0.34	A		1.0	4.68	0.50	A
	Site 3 - 2031 DO SOMETHING									
Arm 1	D15	0.7	5.90	0.40	A	D16	0.4	5.49	0.24	A
Arm 2		1.1	4.75	0.49	A		0.8	4.15	0.44	A
Arm 4		0.7	4.11	0.36	A		1.2	4.96	0.52	A
	Site 3 - 2041 DO SOMETHING									
Arm 1	D17	0.8	6.38	0.43	A	D18	0.4	5.83	0.26	A
Arm 2		1.2	5.15	0.53	A		1.0	4.41	0.47	A
Arm 4		0.7	4.28	0.38	A		1.3	5.22	0.55	A

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

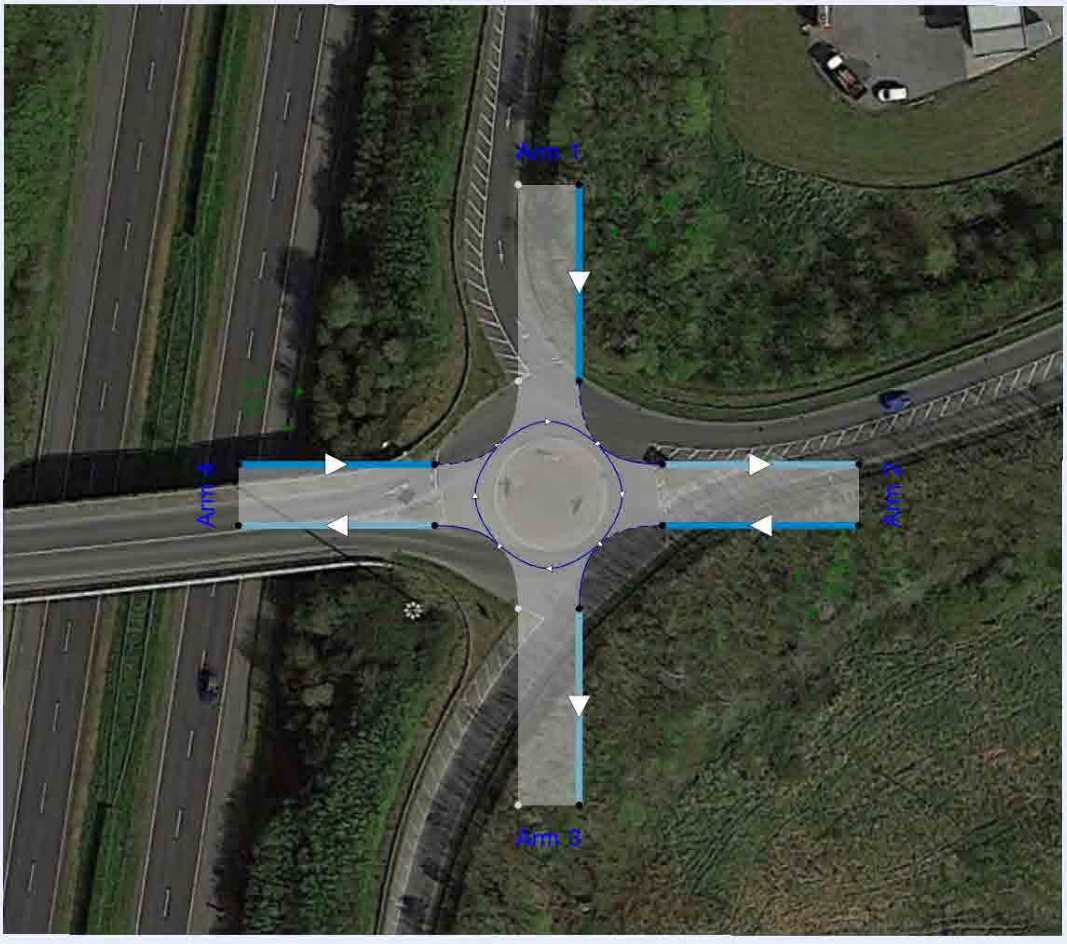
File summary

File Description

Title	
Location	
Site number	
Date	07/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\fernando.figueiredo
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:30	18:00	15
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D4	2024 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D6	2026 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D8	2031 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D10	2041 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D11	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D12	2024 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D13	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D14	2026 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D15	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D16	2031 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D17	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D18	2041 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Site 3	100.000

Site 3 - 2023 SURVEYED FLOWS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled	M1 Southbound Off Slip (N)	
2	untitled	L1140 (E)	
3	untitled	M1 Southbound On Slip (S)	
4	untitled	L1140 (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	4.92	4.92	0.0	21.3	34.0	30.0	✓	
2	4.84	6.28	7.6	50.8	34.0	20.0		
3								✓
4	4.47	6.02	4.4	26.4	34.0	25.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.612	1495
2	0.703	1851
3		
4	0.646	1620

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	298	100.000
2		✓	608	100.000
3				
4		✓	336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	282	1	15
	2	0	1	397	210
	3	0	0	0	0
	4	0	300	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	10	0	15
	2	0	0	8	13
	3	0	0	0	0
	4	0	14	31	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.26	4.22	0.4	A
2	0.37	3.46	0.6	A
3				
4	0.23	3.33	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	224	253	1340	0.167	223	0.2	3.547	A
2	458	39	1823	0.251	456	0.4	2.886	A
3		170						
4	253	0.75	1620	0.156	252	0.2	3.042	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	268	303	1310	0.205	268	0.3	3.807	A
2	547	47	1818	0.301	546	0.5	3.105	A
3		203						
4	302	0.90	1619	0.187	302	0.3	3.158	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	328	371	1268	0.259	328	0.4	4.217	A
2	669	57	1810	0.370	669	0.6	3.456	A
3		249						
4	370	1	1619	0.228	370	0.3	3.330	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	328	371	1268	0.259	328	0.4	4.221	A
2	669	57	1810	0.370	669	0.6	3.459	A
3		249						
4	370	1	1619	0.228	370	0.3	3.330	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	268	303	1309	0.205	268	0.3	3.814	A
2	547	47	1818	0.301	547	0.5	3.111	A
3		203						
4	302	0.90	1619	0.187	302	0.3	3.159	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	224	254	1340	0.167	225	0.2	3.558	A
2	458	39	1823	0.251	458	0.4	2.892	A
3		170						
4	253	0.75	1620	0.156	253	0.2	3.048	A

Site 3 - 2023 SURVEYED FLOWS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.44	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)
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	165	100.000
2		✓	572	100.000
3				
4		✓	488	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	161	1	3
	2	0	1	231	340
	3	0	0	0	0
	4	0	446	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	0
	2	0	0	4	7
	3	0	0	0	0
	4	0	3	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.16	4.09	0.2	A
2	0.35	3.21	0.6	A
3				
4	0.33	3.50	0.5	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	124	367	1270	0.098	124	0.1	3.503	A
2	431	35	1826	0.236	429	0.3	2.723	A
3		258						
4	367	0.75	1620	0.227	366	0.3	3.016	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	439	1226	0.121	148	0.2	3.729	A
2	514	41	1821	0.282	514	0.4	2.911	A
3		309						
4	439	0.90	1619	0.271	438	0.4	3.203	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	182	538	1166	0.156	181	0.2	4.083	A
2	630	51	1815	0.347	629	0.6	3.209	A
3		378						
4	537	1	1619	0.332	537	0.5	3.492	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	182	538	1165	0.156	182	0.2	4.086	A
2	630	51	1815	0.347	630	0.6	3.211	A
3		379						
4	537	1	1619	0.332	537	0.5	3.495	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	440	1226	0.121	149	0.2	3.735	A
2	514	41	1821	0.282	515	0.4	2.914	A
3		310						
4	439	0.90	1619	0.271	439	0.4	3.206	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	124	368	1269	0.098	124	0.1	3.510	A
2	431	35	1826	0.236	431	0.3	2.731	A
3		259						
4	367	0.75	1620	0.227	368	0.3	3.022	A

Site 3 - 2024 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.66	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)
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	304	100.000
2		✓	620	100.000
3				
4		✓	343	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	288	1	15
	2	0	1	405	214
	3	0	0	0	0
	4	0	306	37	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	11	0	16
	2	0	0	8	13
	3	0	0	0	0
	4	0	15	32	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.26	4.31	0.4	A
2	0.38	3.50	0.7	A
3				
4	0.23	3.38	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	229	258	1337	0.171	228	0.2	3.605	A
2	467	40	1823	0.256	465	0.4	2.906	A
3		173						
4	258	0.75	1620	0.159	257	0.2	3.080	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	273	309	1306	0.209	273	0.3	3.875	A
2	557	48	1817	0.307	557	0.5	3.133	A
3		207						
4	308	0.90	1619	0.190	308	0.3	3.201	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	335	378	1263	0.265	334	0.4	4.306	A
2	683	58	1810	0.377	682	0.7	3.499	A
3		253						
4	378	1	1619	0.233	377	0.4	3.380	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	335	379	1263	0.265	335	0.4	4.311	A
2	683	58	1809	0.377	683	0.7	3.502	A
3		253						
4	378	1	1619	0.233	378	0.4	3.380	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	273	310	1306	0.209	274	0.3	3.882	A
2	557	48	1817	0.307	558	0.5	3.139	A
3		207						
4	308	0.90	1619	0.190	309	0.3	3.205	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	229	259	1336	0.171	229	0.2	3.618	A
2	467	40	1822	0.256	467	0.4	2.913	A
3		173						
4	258	0.75	1620	0.159	258	0.2	3.086	A

Site 3 - 2024 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	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)
D4	2024 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	168	100.000
2		✓	582	100.000
3				
4		✓	497	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	164	1	3
	2	0	1	235	346
	3	0	0	0	0
	4	0	454	43	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	0
	2	0	0	4	7
	3	0	0	0	0
	4	0	3	36	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.16	4.13	0.2	A
2	0.35	3.24	0.6	A
3				
4	0.34	3.53	0.5	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	126	374	1266	0.100	126	0.1	3.523	A
2	438	35	1826	0.240	437	0.3	2.738	A
3		263						
4	374	0.75	1620	0.231	373	0.3	3.035	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	151	447	1221	0.124	151	0.2	3.756	A
2	523	42	1821	0.287	523	0.4	2.933	A
3		314						
4	447	0.90	1619	0.276	446	0.4	3.229	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	185	548	1160	0.160	185	0.2	4.122	A
2	641	52	1814	0.353	640	0.6	3.241	A
3		385						
4	547	1	1619	0.338	547	0.5	3.529	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	185	548	1159	0.160	185	0.2	4.125	A
2	641	52	1814	0.353	641	0.6	3.243	A
3		385						
4	547	1	1619	0.338	547	0.5	3.531	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	151	448	1221	0.124	151	0.2	3.762	A
2	523	42	1821	0.287	524	0.4	2.936	A
3		315						
4	447	0.90	1619	0.276	447	0.4	3.231	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	126	375	1265	0.100	127	0.1	3.530	A
2	438	35	1826	0.240	439	0.3	2.747	A
3		264						
4	374	0.75	1620	0.231	375	0.3	3.042	A

Site 3 - 2026 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.74	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)
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	315	100.000
2		✓	642	100.000
3				
4		✓	355	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	298	1	16
	2	0	1	419	222
	3	0	0	0	0
	4	0	317	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	11	0	16
	2	0	0	8	13
	3	0	0	0	0
	4	0	15	32	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.28	4.41	0.4	A
2	0.39	3.58	0.7	A
3				
4	0.24	3.42	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	237	267	1332	0.178	236	0.2	3.651	A
2	483	41	1822	0.265	482	0.4	2.944	A
3		179						
4	267	0.75	1620	0.165	266	0.2	3.101	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	283	320	1299	0.218	283	0.3	3.938	A
2	577	49	1816	0.318	577	0.5	3.186	A
3		215						
4	319	0.90	1619	0.197	319	0.3	3.227	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	347	392	1255	0.276	346	0.4	4.402	A
2	707	60	1808	0.391	706	0.7	3.581	A
3		263						
4	391	1	1619	0.241	391	0.4	3.416	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	347	392	1255	0.276	347	0.4	4.407	A
2	707	61	1808	0.391	707	0.7	3.584	A
3		263						
4	391	1	1619	0.241	391	0.4	3.416	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	283	320	1299	0.218	284	0.3	3.944	A
2	577	50	1816	0.318	578	0.5	3.193	A
3		215						
4	319	0.90	1619	0.197	319	0.3	3.229	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	237	268	1331	0.178	237	0.2	3.661	A
2	483	41	1821	0.265	484	0.4	2.951	A
3		180						
4	267	0.75	1620	0.165	267	0.2	3.104	A

Site 3 - 2026 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.54	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)
D6	2026 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	174	100.000
2		✓	602	100.000
3				
4		✓	514	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	170	1	3
	2	0	1	243	358
	3	0	0	0	0
	4	0	469	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	0
	2	0	0	4	7
	3	0	0	0	0
	4	0	3	36	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.17	4.20	0.2	A
2	0.37	3.31	0.6	A
3				
4	0.35	3.59	0.6	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	386	1258	0.104	130	0.1	3.562	A
2	453	37	1825	0.248	452	0.3	2.771	A
3		272						
4	387	0.75	1620	0.239	386	0.3	3.068	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	156	463	1212	0.129	156	0.2	3.808	A
2	541	44	1820	0.297	541	0.4	2.977	A
3		325						
4	462	0.90	1619	0.285	462	0.4	3.272	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	192	566	1148	0.167	191	0.2	4.201	A
2	663	54	1813	0.366	662	0.6	3.307	A
3		398						
4	566	1	1619	0.349	565	0.6	3.592	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	192	567	1148	0.167	192	0.2	4.204	A
2	663	54	1813	0.366	663	0.6	3.310	A
3		399						
4	566	1	1619	0.349	566	0.6	3.595	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	156	464	1211	0.129	157	0.2	3.815	A
2	541	44	1820	0.297	542	0.4	2.982	A
3		326						
4	462	0.90	1619	0.285	463	0.4	3.278	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	388	1257	0.104	131	0.1	3.572	A
2	453	37	1825	0.248	454	0.4	2.777	A
3		273						
4	387	0.75	1620	0.239	387	0.3	3.077	A

Site 3 - 2031 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.97	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)
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	341	100.000
2		✓	696	100.000
3				
4		✓	388	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	323	1	17
	2	0	1	454	241
	3	0	0	0	0
	4	0	346	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	17
	2	0	0	9	14
	3	0	0	0	0
	4	0	16	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	4.71	0.5	A
2	0.42	3.84	0.8	A
3				
4	0.26	3.55	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	292	1316	0.195	256	0.3	3.804	A
2	524	45	1819	0.288	522	0.4	3.068	A
3		194						
4	292	0.75	1620	0.180	291	0.3	3.190	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	307	349	1281	0.239	306	0.4	4.142	A
2	626	54	1813	0.345	625	0.6	3.353	A
3		233						
4	349	0.90	1619	0.215	349	0.3	3.334	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	375	428	1233	0.304	375	0.5	4.703	A
2	766	66	1804	0.425	765	0.8	3.831	A
3		285						
4	427	1	1619	0.264	427	0.4	3.553	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	375	428	1233	0.305	375	0.5	4.710	A
2	766	66	1804	0.425	766	0.8	3.838	A
3		285						
4	427	1	1619	0.264	427	0.4	3.553	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	307	350	1281	0.239	307	0.4	4.150	A
2	626	54	1813	0.345	627	0.6	3.361	A
3		233						
4	349	0.90	1619	0.215	349	0.3	3.338	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	293	1316	0.195	257	0.3	3.815	A
2	524	45	1819	0.288	525	0.4	3.081	A
3		195						
4	292	0.75	1620	0.180	292	0.3	3.195	A

Site 3 - 2031 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.73	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)
D8	2031 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	189	100.000
2		✓	650	100.000
3				
4		✓	555	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	185	1	3
	2	0	1	262	387
	3	0	0	0	0
	4	0	505	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	13	0	0
	2	0	0	4	8
	3	0	0	0	0
	4	0	3	38	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.19	4.45	0.3	A
2	0.40	3.50	0.7	A
3				
4	0.38	3.76	0.6	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	142	417	1240	0.115	142	0.1	3.693	A
2	489	41	1822	0.269	488	0.4	2.867	A
3		293						
4	418	0.75	1620	0.258	416	0.4	3.149	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	170	499	1189	0.143	170	0.2	3.979	A
2	584	49	1816	0.322	584	0.5	3.106	A
3		351						
4	499	0.90	1619	0.308	499	0.5	3.385	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	208	611	1121	0.186	208	0.3	4.443	A
2	716	59	1809	0.396	715	0.7	3.498	A
3		430						
4	611	1	1619	0.377	610	0.6	3.759	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	208	612	1120	0.186	208	0.3	4.447	A
2	716	59	1809	0.396	716	0.7	3.501	A
3		430						
4	611	1	1619	0.377	611	0.6	3.762	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	170	500	1189	0.143	170	0.2	3.985	A
2	584	49	1816	0.322	585	0.5	3.110	A
3		352						
4	499	0.90	1619	0.308	500	0.5	3.389	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	142	419	1239	0.115	142	0.1	3.700	A
2	489	41	1822	0.269	490	0.4	2.874	A
3		295						
4	418	0.75	1620	0.258	418	0.4	3.159	A

Site 3 - 2041 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.22	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)
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	365	100.000
2		✓	745	100.000
3				
4		✓	419	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	346	1	18
	2	0	1	484	260
	3	0	0	0	0
	4	0	373	46	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	13	0	19
	2	0	0	10	16
	3	0	0	0	0
	4	0	17	37	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.33	5.03	0.6	A
2	0.46	4.11	0.9	A
3				
4	0.28	3.70	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	275	315	1302	0.211	274	0.3	3.960	A
2	561	49	1816	0.309	559	0.5	3.201	A
3		209						
4	315	0.75	1620	0.195	314	0.3	3.276	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	328	377	1264	0.260	328	0.4	4.351	A
2	670	58	1809	0.370	669	0.7	3.534	A
3		251						
4	377	0.90	1619	0.233	376	0.4	3.443	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	402	462	1212	0.332	401	0.6	5.022	A
2	820	71	1800	0.456	819	0.9	4.106	A
3		307						
4	461	1	1619	0.285	461	0.5	3.692	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	402	462	1212	0.332	402	0.6	5.032	A
2	820	72	1800	0.456	820	0.9	4.114	A
3		307						
4	461	1	1619	0.285	461	0.5	3.695	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	328	378	1264	0.260	329	0.4	4.363	A
2	670	59	1809	0.370	671	0.7	3.544	A
3		251						
4	377	0.90	1619	0.233	377	0.4	3.448	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	275	316	1301	0.211	275	0.3	3.974	A
2	561	49	1816	0.309	562	0.5	3.217	A
3		210						
4	315	0.75	1620	0.195	316	0.3	3.283	A

Site 3 - 2041 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.93	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)
D10	2041 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	204	100.000
2		✓	690	100.000
3				
4		✓	589	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	199	1	4
	2	0	1	277	412
	3	0	0	0	0
	4	0	534	55	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	14	0	0
	2	0	0	4	9
	3	0	0	0	0
	4	0	4	41	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.20	4.69	0.3	A
2	0.42	3.68	0.8	A
3				
4	0.40	3.95	0.7	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	154	443	1224	0.125	153	0.2	3.816	A
2	519	45	1819	0.286	518	0.4	2.954	A
3		313						
4	443	0.75	1620	0.274	442	0.4	3.254	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	183	530	1171	0.157	183	0.2	4.141	A
2	620	54	1813	0.342	620	0.6	3.225	A
3		375						
4	529	0.90	1619	0.327	529	0.5	3.517	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	225	649	1098	0.205	224	0.3	4.681	A
2	760	66	1804	0.421	759	0.8	3.678	A
3		459						
4	649	1	1619	0.400	648	0.7	3.946	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	225	650	1097	0.205	225	0.3	4.686	A
2	760	66	1804	0.421	760	0.8	3.684	A
3		459						
4	649	1	1619	0.400	648	0.7	3.953	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	183	531	1170	0.157	184	0.2	4.150	A
2	620	54	1813	0.342	621	0.6	3.235	A
3		375						
4	529	0.90	1619	0.327	530	0.5	3.525	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	154	445	1223	0.126	154	0.2	3.828	A
2	519	45	1819	0.286	520	0.4	4.966	A
3		314						
4	443	0.75	1620	0.274	444	0.4	3.267	A

Site 3 - 2024 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.72	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)
D11	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	313	100.000
2		✓	622	100.000
3				
4		✓	356	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	288	1	24
	2	0	1	405	216
	3	0	0	0	0
	4	0	308	48	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	11	0	13
	2	0	0	8	13
	3	0	0	0	0
	4	0	15	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.27	4.40	0.4	A
2	0.38	3.56	0.7	A
3				
4	0.24	3.41	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	236	268	1331	0.177	235	0.2	3.644	A
2	468	55	1812	0.258	467	0.4	2.932	A
3		181						
4	268	0.75	1620	0.165	267	0.2	3.090	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	281	321	1299	0.217	281	0.3	3.930	A
2	559	66	1804	0.310	559	0.5	3.169	A
3		216						
4	320	0.90	1619	0.198	320	0.3	3.216	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345	393	1255	0.275	344	0.4	4.391	A
2	685	80	1794	0.382	684	0.7	3.555	A
3		265						
4	392	1	1619	0.242	392	0.4	3.405	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345	393	1254	0.275	345	0.4	4.396	A
2	685	80	1794	0.382	685	0.7	3.558	A
3		265						
4	392	1	1619	0.242	392	0.4	3.405	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	281	321	1298	0.217	282	0.3	3.936	A
2	559	66	1804	0.310	560	0.5	3.176	A
3		217						
4	320	0.90	1619	0.198	320	0.3	3.220	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	236	269	1330	0.177	236	0.2	3.654	A
2	468	55	1812	0.258	469	0.4	2.939	A
3		182						
4	268	0.75	1620	0.165	268	0.2	3.093	A

Site 3 - 2024 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.54	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)
D12	2024 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	177	100.000
2		✓	584	100.000
3				
4		✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	164	1	12
	2	0	1	235	348
	3	0	0	0	0
	4	0	456	55	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	15
	2	0	0	4	8
	3	0	0	0	0
	4	0	4	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.17	4.23	0.2	A
2	0.36	3.31	0.6	A
3				
4	0.35	3.57	0.6	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	133	384	1260	0.106	133	0.1	3.579	A
2	440	51	1815	0.242	438	0.3	2.779	A
3		271						
4	385	0.75	1620	0.238	383	0.3	3.049	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	159	460	1213	0.131	159	0.2	3.827	A
2	525	61	1808	0.290	525	0.4	2.984	A
3		324						
4	459	0.90	1619	0.284	459	0.4	3.251	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	195	563	1150	0.169	195	0.2	4.223	A
2	643	75	1798	0.358	642	0.6	3.311	A
3		397						
4	563	1	1619	0.347	562	0.6	3.566	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	195	564	1150	0.169	195	0.2	4.226	A
2	643	75	1798	0.358	643	0.6	3.314	A
3		397						
4	563	1	1619	0.347	563	0.6	3.569	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	159	461	1213	0.131	159	0.2	3.834	A
2	525	61	1807	0.290	526	0.4	2.987	A
3		325						
4	459	0.90	1619	0.284	460	0.4	3.257	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	133	386	1259	0.106	133	0.1	3.586	A
2	440	51	1814	0.242	440	0.3	2.787	A
3		272						
4	385	0.75	1620	0.238	385	0.3	3.058	A

Site 3 - 2026 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	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)
D13	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	383	100.000
2		✓	693	100.000
3				
4		✓	499	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	298	1	84
	2	0	1	419	273
	3	0	0	0	0
	4	0	346	153	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	11	0	13
	2	0	0	8	13
	3	0	0	0	0
	4	0	15	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.36	5.45	0.6	A
2	0.46	4.38	0.9	A
3				
4	0.34	3.96	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	288	375	1265	0.228	287	0.3	4.094	A
2	522	178	1725	0.302	520	0.5	3.273	A
3		268						
4	376	0.75	1620	0.232	374	0.4	3.397	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	344	449	1220	0.282	344	0.4	4.575	A
2	623	214	1700	0.366	622	0.6	3.669	A
3		321						
4	449	0.90	1619	0.277	448	0.4	3.615	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	422	550	1158	0.364	421	0.6	5.432	A
2	763	262	1666	0.458	762	0.9	4.368	A
3		394						
4	549	1	1619	0.339	549	0.6	3.954	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	422	551	1158	0.364	422	0.6	5.446	A
2	763	262	1666	0.458	763	0.9	4.380	A
3		394						
4	549	1	1619	0.339	549	0.6	3.957	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	344	450	1219	0.282	345	0.4	4.590	A
2	623	214	1700	0.367	624	0.6	3.681	A
3		322						
4	449	0.90	1619	0.277	449	0.5	3.619	A

14:00	0	0	1	0	0	0	0	1	1	0	0	9	4	2	0	0	15	16	0	0	4	1	0	0	0	5	5
14:15	0	0	0	1	0	0	0	1	1	0	0	4	6	1	0	0	11	11.5	0	0	10	0	0	0	0	10	10
14:30	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	5.5	0	0	8	1	1	0	0	10	10.5
14:45	0	0	2	0	0	0	0	2	2	0	0	11	1	0	0	0	12	12	0	0	3	2	1	0	0	6	6.5
H/TOT	0	0	3	1	0	0	0	4	4	0	0	27	12	4	0	0	43	45	0	0	25	4	2	0	0	31	32
15:00	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	8.5	0	0	6	2	0	0	0	8	8
15:15	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	8	5	0	0	0	13	13
15:30	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	5	2	1	0	0	8	8.5
15:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	0	14	1	0	0	0	15	15
H/TOT	0	0	0	0	0	0	0	0	0	0	0	37	3	1	0	0	41	41.5	0	0	33	10	1	0	0	44	44.5
16:00	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	6	2	0	0	0	8	8
16:15	0	0	1	0	0	0	0	1	1	0	0	6	3	0	0	0	9	9	0	0	1	3	0	0	0	4	4
16:30	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	9	9	0	0	12	3	0	0	0	15	15
16:45	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9	0	0	11	3	0	0	0	14	14
H/TOT	0	0	1	0	0	0	0	1	1	0	0	27	9	0	0	0	36	36	0	0	30	11	0	0	0	41	41
17:00	0	0	0	1	0	0	0	1	1	0	0	9	7	0	0	0	16	16	0	0	12	3	0	0	0	15	15
17:15	0	0	1	0	0	0	0	1	1	0	0	8	2	0	0	0	10	10	0	0	10	4	0	0	0	14	14
17:30	0	0	0	0	0	0	0	0	0	0	0	13	5	0	0	0	18	18	0	0	11	4	0	0	0	15	15
17:45	0	0	0	0	0	0	0	0	0	0	0	4	7	0	0	0	11	11	0	0	13	3	0	0	0	16	16
H/TOT	0	0	1	1	0	0	0	2	2	0	0	34	21	0	0	0	55	55	0	0	46	14	0	0	0	60	60
18:00	0	0	1	0	0	0	0	1	1	0	0	13	0	0	0	0	13	13	0	0	3	1	0	0	0	4	4
18:15	0	0	1	0	0	0	0	1	1	0	0	11	0	0	0	0	11	11	0	0	8	2	0	0	0	10	10
18:30	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7	0	0	7	1	0	0	0	8	8
18:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	5	0	0	0	0	5	5
H/TOT	0	0	2	0	0	0	0	2	2	0	0	31	2	0	0	0	33	33	0	0	23	4	0	0	0	27	27
19:00	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	11	0	0	4	0	0	0	0	4	4
19:15	0	0	0	0	0	1	0	1	2.3	0	0	7	2	0	0	0	9	9	0	0	4	1	1	0	0	6	6.5
19:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	6	0	0	0	0	6	6
19:45	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	1	0	1	2.3	0	0	26	6	0	0	0	32	32	0	0	22	1	1	0	0	24	24.5
20:00	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	2	0	0	0	2	2
20:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	4	0	0	0	0	4	4
20:30	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	3	1	0	0	0	4	4
20:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	0	0	10	3	0	0	0	13	13
21:00	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
21:15	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
21:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1
21:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	3	0	0	0	0	3	3
H/TOT	0	0	1	0	0	0	0	1	1	0	0	13	1	0	0	0	14	14	0	0	5	0	0	0	0	5	5
22:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	288	377	1264	0.228	289	0.3	4.114	A
2	522	179	1724	0.303	522	0.5	3.292	A
3		270						
4	376	0.75	1620	0.232	376	0.4	3.405	A

Site 3 - 2026 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	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)
D14	2026 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	197	100.000
2		✓	620	100.000
3				
4		✓	729	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	170	1	26
	2	0	1	243	376
	3	0	0	0	0
	4	0	512	217	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	15
	2	0	0	4	8
	3	0	0	0	0
	4	0	4	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.22	5.14	0.3	A
2	0.41	3.91	0.7	A
3				
4	0.50	4.68	1.0	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	547	1160	0.128	148	0.2	3.992	A
2	467	183	1722	0.271	465	0.4	3.043	A
3		302						
4	549	0.75	1620	0.339	547	0.5	3.557	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	177	656	1094	0.162	177	0.2	4.409	A
2	557	219	1696	0.329	557	0.5	3.358	A
3		362						
4	655	0.90	1619	0.405	655	0.7	3.962	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	217	802	1004	0.216	217	0.3	5.134	A
2	683	268	1662	0.411	682	0.7	3.904	A
3		443						
4	803	1	1619	0.496	801	1.0	4.662	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	217	804	1003	0.216	217	0.3	5.143	A
2	683	269	1662	0.411	683	0.7	3.911	A
3		444						
4	803	1	1619	0.496	803	1.0	4.683	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	177	658	1092	0.162	177	0.2	4.420	A
2	557	220	1696	0.329	558	0.5	3.370	A
3		363						
4	655	0.90	1619	0.405	657	0.7	3.979	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	550	1158	0.128	149	0.2	4.005	A
2	467	184	1721	0.271	467	0.4	3.054	A
3		304						
4	549	0.75	1620	0.339	550	0.5	3.579	A

Site 3 - 2031 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.83	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)
D15	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	409	100.000
2		✓	747	100.000
3				
4		✓	531	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	323	1	85
	2	0	1	454	292
	3	0	0	0	0
	4	0	374	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	12	0	14
	2	0	0	9	14
	3	0	0	0	0
	4	0	16	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.40	5.90	0.7	A
2	0.49	4.75	1.1	A
3				
4	0.36	4.11	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	308	399	1251	0.246	306	0.4	4.278	A
2	562	182	1722	0.327	560	0.5	3.429	A
3		283						
4	400	0.75	1620	0.247	398	0.4	3.481	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	368	478	1202	0.306	367	0.5	4.839	A
2	672	218	1697	0.396	671	0.7	3.887	A
3		339						
4	477	0.90	1619	0.295	477	0.5	3.726	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	450	585	1137	0.396	449	0.7	5.876	A
2	822	267	1663	0.495	821	1.1	4.736	A
3		415						
4	585	1	1619	0.361	584	0.7	4.109	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	450	586	1136	0.396	450	0.7	5.895	A
2	822	268	1662	0.495	822	1.1	4.752	A
3		416						
4	585	1	1619	0.361	585	0.7	4.114	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	368	479	1202	0.306	369	0.5	4.860	A
2	672	219	1697	0.396	673	0.7	3.904	A
3		341						
4	477	0.90	1619	0.295	478	0.5	3.733	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	308	401	1250	0.246	308	0.4	4.300	A
2	562	183	1722	0.327	563	0.5	3.447	A
3		285						
4	400	0.75	1620	0.247	400	0.4	3.494	A

Site 3 - 2031 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.70	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)
D16	2031 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	213	100.000
2		✓	667	100.000
3				
4		✓	769	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	185	1	27
	2	0	1	262	404
	3	0	0	0	0
	4	0	547	222	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	13	0	15
	2	0	0	4	8
	3	0	0	0	0
	4	0	4	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	5.49	0.4	A
2	0.44	4.15	0.8	A
3				
4	0.52	4.96	1.2	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	160	577	1142	0.140	160	0.2	4.147	A
2	502	187	1719	0.292	500	0.4	3.139	A
3		324						
4	579	0.75	1620	0.357	577	0.6	3.667	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	191	691	1072	0.179	191	0.2	4.626	A
2	600	224	1693	0.354	599	0.6	3.500	A
3		388						
4	691	0.90	1619	0.427	691	0.8	4.122	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	235	846	977	0.240	234	0.4	5.481	A
2	734	275	1657	0.443	733	0.8	4.141	A
3		475						
4	847	1	1619	0.523	845	1.2	4.941	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	235	848	976	0.240	235	0.4	5.494	A
2	734	275	1657	0.443	734	0.8	4.150	A
3		476						
4	847	1	1619	0.523	847	1.2	4.959	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	191	694	1070	0.179	192	0.2	4.642	A
2	600	225	1692	0.354	601	0.6	3.513	A
3		389						
4	691	0.90	1619	0.427	693	0.8	4.141	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	160	581	1140	0.141	161	0.2	4.162	A
2	502	188	1718	0.292	503	0.4	3.154	A
3		326						
4	579	0.75	1620	0.357	580	0.6	3.690	A

Site 3 - 2041 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.17	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)
D17	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	433	100.000
2		✓	796	100.000
3				
4		✓	562	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	346	1	86
	2	0	1	484	311
	3	0	0	0	0
	4	0	401	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	13	0	14
	2	0	0	10	15
	3	0	0	0	0
	4	0	17	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.43	6.38	0.8	A
2	0.53	5.15	1.2	A
3				
4	0.38	4.28	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	326	422	1237	0.264	324	0.4	4.459	A
2	599	186	1720	0.348	597	0.6	3.579	A
3		298						
4	423	0.75	1620	0.261	421	0.4	3.568	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	389	506	1185	0.328	389	0.5	5.110	A
2	716	223	1694	0.422	715	0.8	4.110	A
3		357						
4	505	0.90	1619	0.312	505	0.5	3.839	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	619	1116	0.427	476	0.8	6.349	A
2	876	273	1659	0.528	875	1.2	5.125	A
3		437						
4	619	1	1619	0.382	618	0.7	4.269	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	620	1116	0.427	477	0.8	6.376	A
2	876	273	1658	0.528	876	1.2	5.149	A
3		438						
4	619	1	1619	0.382	619	0.7	4.278	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	389	507	1185	0.329	390	0.6	5.135	A
2	716	223	1693	0.423	717	0.8	4.134	A
3		359						
4	505	0.90	1619	0.312	506	0.5	3.847	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	326	424	1235	0.264	327	0.4	4.485	A
2	599	187	1719	0.349	600	0.6	3.602	A
3		300						
4	423	0.75	1620	0.261	424	0.4	3.583	A

Site 3 - 2041 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	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)
D18	2041 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	227	100.000
2		✓	708	100.000
3				
4		✓	803	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	199	1	27
	2	0	1	277	430
	3	0	0	0	0
	4	0	576	227	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	14	0	14
	2	0	0	4	9
	3	0	0	0	0
	4	0	4	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.26	5.83	0.4	A
2	0.47	4.41	1.0	A
3				
4	0.55	5.22	1.3	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	171	603	1126	0.152	170	0.2	4.287	A
2	533	191	1716	0.311	531	0.5	3.244	A
3		344						
4	605	0.75	1620	0.373	602	0.6	3.763	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	204	722	1053	0.194	204	0.3	4.828	A
2	636	229	1689	0.377	636	0.6	3.653	A
3		411						
4	722	0.90	1619	0.446	721	0.9	4.268	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	250	884	954	0.262	249	0.4	5.817	A
2	780	280	1653	0.471	778	0.9	4.394	A
3		503						
4	884	1	1619	0.546	882	1.3	5.198	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	250	885	953	0.262	250	0.4	5.832	A
2	780	281	1653	0.472	780	1.0	4.408	A
3		504						
4	884	1	1619	0.546	884	1.3	5.221	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	204	724	1051	0.194	205	0.3	4.845	A
2	636	230	1689	0.377	638	0.7	3.666	A
3		413						
4	722	0.90	1619	0.446	724	0.9	4.292	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	171	606	1124	0.152	171	0.2	4.306	A
2	533	192	1715	0.311	534	0.5	3.260	A
3		345						
4	605	0.75	1620	0.373	605	0.6	3.788	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

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

Filename: Site 4 - AM_PM.j10
Path: Q:\2016 Jobs\16_206A M1 Business Park - Zone A\Traffic\2. Junction Models\4. Site 4
Report generation date: 05/03/2024 10:34:24

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Site 4 - 2023 SURVEYED FLOWS									
Arm 1	D1	0.9	4.78	0.47	A	D2	0.4	3.11	0.26	A
Arm 2		0.3	3.24	0.22	A		0.4	3.03	0.28	A
Arm 3		0.8	4.62	0.42	A		0.8	4.60	0.45	A
Arm 4		0.1	2.45	0.07	A		0.1	2.42	0.08	A
	Site 4 - 2024 DO NOTHING									
Arm 1	D3	1.0	4.89	0.48	A	D4	0.4	3.14	0.27	A
Arm 2		0.4	3.31	0.23	A		0.4	3.07	0.29	A
Arm 3		0.8	4.72	0.43	A		0.9	4.70	0.46	A
Arm 4		0.1	2.48	0.07	A		0.1	2.45	0.09	A
	Site 4 - 2026 DO NOTHING									
Arm 1	D5	1.1	5.12	0.50	A	D6	0.4	3.19	0.28	A
Arm 2		0.4	3.38	0.24	A		0.5	3.13	0.30	A
Arm 3		0.9	4.89	0.45	A		0.9	4.86	0.47	A
Arm 4		0.1	2.52	0.08	A		0.1	2.48	0.09	A
	Site 4 - 2031 DO NOTHING									
Arm 1	D7	1.3	5.84	0.55	A	D8	0.4	3.35	0.30	A
Arm 2		0.4	3.58	0.27	A		0.5	3.32	0.33	A
Arm 3		1.1	5.36	0.49	A		1.1	5.31	0.51	A
Arm 4		0.1	2.62	0.09	A		0.1	2.59	0.10	A
	Site 4 - 2041 DO NOTHING									
Arm 1	D9	1.5	6.61	0.60	A	D10	0.5	3.49	0.32	A
Arm 2		0.5	3.84	0.29	A		0.6	3.49	0.35	A
Arm 3		1.3	5.88	0.53	A		1.3	5.79	0.55	A
Arm 4		0.1	2.74	0.09	A		0.1	2.68	0.11	A
	Site 4 - 2024 DO SOMETHING									
Arm 1	D11	1.0	4.93	0.48	A	D12	0.4	3.16	0.27	A
Arm 2		0.4	3.29	0.23	A		0.4	3.09	0.29	A
Arm 3		0.9	4.75	0.43	A		0.9	4.70	0.46	A
Arm 4		0.1	2.48	0.07	A		0.1	2.45	0.09	A
	Site 4 - 2026 DO SOMETHING									
Arm 1	D13	1.1	5.38	0.52	A	D14	0.4	3.29	0.29	A
Arm 2		0.4	3.50	0.27	A		0.5	3.20	0.31	A
Arm 3		1.0	5.10	0.47	A		1.1	5.17	0.51	A
Arm 4		0.1	2.55	0.08	A		0.1	2.53	0.09	A
	Site 4 - 2031 DO SOMETHING									
Arm 1	D15	1.4	6.14	0.57	A	D16	0.5	3.44	0.31	A
Arm 2		0.5	3.72	0.29	A		0.6	3.37	0.34	A
Arm 3		1.2	5.60	0.51	A		1.3	5.70	0.55	A
Arm 4		0.1	2.67	0.09	A		0.1	2.64	0.10	A
	Site 4 - 2041 DO SOMETHING									
Arm 1	D17	1.7	6.99	0.61	A	D18	0.5	3.57	0.33	A
Arm 2		0.6	3.98	0.32	A		0.6	3.55	0.36	A
Arm 3		1.4	6.19	0.55	A		1.5	6.22	0.58	A
Arm 4		0.1	2.78	0.10	A		0.1	2.74	0.11	A

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

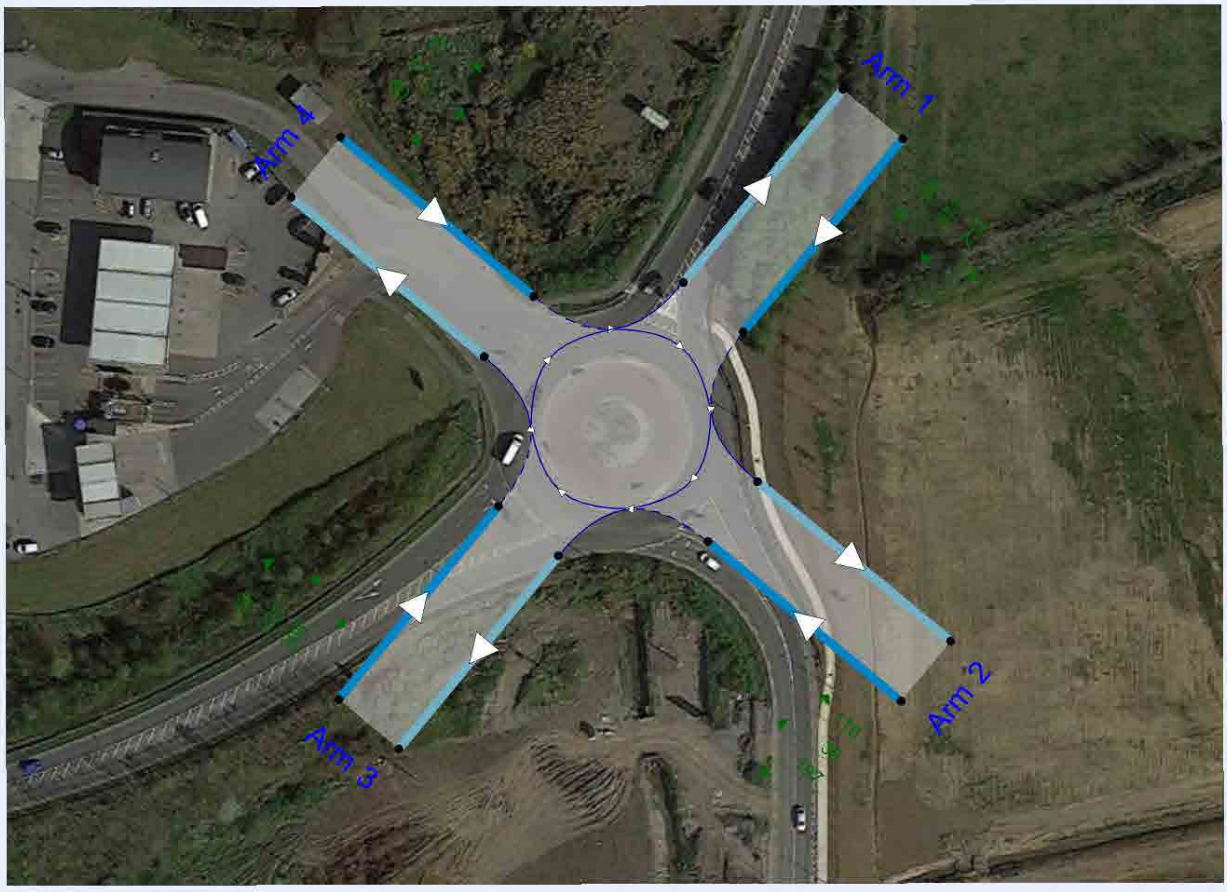
File summary

File Description

Title	
Location	
Site number	
Date	07/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\fernando.figueiredo
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:30	18:00	15
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D4	2024 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D6	2026 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D8	2031 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15
D10	2041 DO NOTHING	PM	ONE HOUR	16:30	18:00	15
D11	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D12	2024 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D13	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D14	2026 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D15	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D16	2031 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15
D17	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15
D18	2041 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Site 4	100.000

Site 4 - 2023 SURVEYED FLOWS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.25	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled	R132 (NE)	
2	untitled	R132 (SE)	
3	untitled	L1140 (SW)	
4	untitled	Access Rd - Applegreen Petrol Station (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	5.29	5.90	8.6	27.1	50.0	30.0		
2	5.36	7.30	17.0	32.5	50.0	41.0		
3	4.00	7.64	15.0	16.0	50.0	59.0		
4	8.20	8.20	0.0	18.7	50.0	54.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.627	1776
2	0.663	2015
3	0.562	1626
4	0.691	2269

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 SURVEYED FLOWS	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	642	100.000
2		✓	344	100.000
3		✓	578	100.000
4		✓	116	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	247	365	29
	2	116	0	193	35
	3	227	301	0	50
	4	17	40	59	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	4	7
	2	13	0	19	27
	3	7	17	0	13
	4	0	11	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.47	4.78	0.9	A
2	0.22	3.24	0.3	A
3	0.42	4.62	0.8	A
4	0.07	2.45	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	483	300	1588	0.304	481	0.5	3.418	A
2	259	341	1789	0.145	258	0.2	2.765	A
3	435	136	1549	0.281	433	0.4	3.630	A
4	87	484	1935	0.045	87	0.1	2.193	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	577	359	1551	0.372	576	0.6	3.886	A
2	309	408	1744	0.177	309	0.3	2.950	A
3	520	163	1534	0.339	519	0.6	3.998	A
4	104	579	1869	0.056	104	0.1	2.296	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	707	440	1500	0.471	706	0.9	4.753	A
2	379	499	1684	0.225	378	0.3	3.244	A
3	636	199	1514	0.420	635	0.8	4.606	A
4	128	709	1779	0.072	128	0.1	2.453	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	707	440	1500	0.471	707	0.9	4.777	A
2	379	500	1683	0.225	379	0.3	3.245	A
3	636	199	1514	0.420	636	0.8	4.616	A
4	128	710	1778	0.072	128	0.1	2.454	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	577	360	1550	0.372	578	0.6	3.903	A
2	309	409	1744	0.177	310	0.3	2.953	A
3	520	163	1534	0.339	521	0.6	3.999	A
4	104	581	1868	0.056	104	0.1	2.298	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	483	301	1587	0.305	484	0.5	3.436	A
2	259	342	1788	0.145	259	0.2	2.770	A
3	435	136	1549	0.281	436	0.4	3.641	A
4	87	486	1933	0.045	87	0.1	2.197	A

Site 4 - 2023 SURVEYED FLOWS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.60	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)
D2	2023 SURVEYED FLOWS	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	386	100.000
2		✓	460	100.000
3		✓	607	100.000
4		✓	132	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	141	218	26
	2	158	0	273	29
	3	397	140	0	70
	4	37	20	75	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	1	0
	2	5	0	9	7
	3	3	9	0	13
	4	6	11	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.26	3.11	0.4	A
2	0.28	3.03	0.4	A
3	0.45	4.60	0.8	A
4	0.08	2.42	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	291	176	1665	0.174	290	0.2	2.686	A
2	346	240	1855	0.187	345	0.2	2.561	A
3	457	161	1535	0.298	455	0.4	3.506	A
4	99	522	1908	0.052	99	0.1	2.134	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	347	211	1644	0.211	347	0.3	2.850	A
2	414	287	1824	0.227	413	0.3	2.742	A
3	546	192	1518	0.360	545	0.6	3.899	A
4	119	625	1837	0.065	119	0.1	2.247	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	425	258	1614	0.263	425	0.4	3.108	A
2	506	352	1781	0.284	506	0.4	3.033	A
3	668	235	1493	0.448	667	0.8	4.587	A
4	145	765	1740	0.084	145	0.1	2.421	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	425	259	1614	0.263	425	0.4	3.109	A
2	506	352	1781	0.284	506	0.4	3.034	A
3	668	236	1493	0.448	668	0.8	4.599	A
4	145	766	1740	0.084	145	0.1	2.422	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	347	212	1643	0.211	347	0.3	2.855	A
2	414	288	1824	0.227	414	0.3	2.744	A
3	546	193	1518	0.360	547	0.6	3.912	A
4	119	627	1836	0.065	119	0.1	2.249	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	291	177	1665	0.175	291	0.2	2.692	A
2	346	241	1855	0.187	347	0.2	2.567	A
3	457	161	1535	0.298	458	0.4	3.522	A
4	99	525	1907	0.052	99	0.1	2.138	A

Site 4 - 2024 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.34	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)
D3	2024 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	653	100.000
2		✓	351	100.000
3		✓	590	100.000
4		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	252	371	29
	2	118	0	197	36
	3	231	308	0	51
	4	17	41	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	4	8
	2	14	0	20	28
	3	7	18	0	14
	4	0	12	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.48	4.89	1.0	A
2	0.23	3.31	0.4	A
3	0.43	4.72	0.8	A
4	0.07	2.48	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	307	1584	0.310	490	0.5	3.459	A
2	264	346	1786	0.148	263	0.2	2.805	A
3	444	138	1548	0.287	442	0.5	3.675	A
4	89	493	1928	0.046	89	0.1	2.210	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	587	367	1546	0.380	586	0.6	3.949	A
2	316	414	1740	0.181	315	0.3	2.997	A
3	530	165	1533	0.346	530	0.6	4.058	A
4	106	591	1861	0.057	106	0.1	2.317	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	450	1494	0.481	718	1.0	4.874	A
2	386	507	1679	0.230	386	0.4	3.304	A
3	650	202	1512	0.430	649	0.8	4.712	A
4	130	723	1769	0.073	130	0.1	2.480	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	450	1494	0.481	719	1.0	4.892	A
2	386	508	1678	0.230	386	0.4	3.305	A
3	650	203	1512	0.430	650	0.8	4.721	A
4	130	724	1768	0.073	130	0.1	2.481	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	587	368	1545	0.380	588	0.6	3.968	A
2	316	415	1739	0.181	316	0.3	3.000	A
3	530	166	1533	0.346	531	0.6	4.070	A
4	106	593	1860	0.057	106	0.1	2.320	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	308	1583	0.311	492	0.5	3.480	A
2	264	348	1784	0.148	264	0.2	2.810	A
3	444	139	1548	0.287	445	0.5	3.692	A
4	89	496	1926	0.046	89	0.1	2.212	A

Site 4 - 2024 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.66	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)
D4	2024 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	394	100.000
2		✓	470	100.000
3		✓	619	100.000
4		✓	135	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	144	222	27
	2	161	0	279	30
	3	404	143	0	72
	4	38	20	77	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	1	0
	2	5	0	9	7
	3	3	10	0	13
	4	6	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.27	3.14	0.4	A
2	0.29	3.07	0.4	A
3	0.46	4.70	0.9	A
4	0.09	2.45	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	297	180	1663	0.178	296	0.2	2.702	A
2	354	245	1852	0.191	353	0.3	2.579	A
3	466	164	1533	0.304	464	0.5	3.550	A
4	102	532	1902	0.053	101	0.1	2.148	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	354	216	1641	0.216	354	0.3	2.872	A
2	423	294	1820	0.232	422	0.3	2.767	A
3	556	197	1515	0.367	556	0.6	3.961	A
4	121	637	1829	0.066	121	0.1	2.264	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	434	264	1611	0.269	433	0.4	3.140	A
2	517	360	1776	0.291	517	0.4	3.072	A
3	682	241	1490	0.457	680	0.9	4.690	A
4	149	779	1730	0.086	149	0.1	2.444	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	434	264	1610	0.269	434	0.4	3.141	A
2	517	360	1776	0.291	517	0.4	3.073	A
3	682	241	1490	0.457	682	0.9	4.702	A
4	149	781	1730	0.086	149	0.1	2.445	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	354	216	1641	0.216	355	0.3	2.877	A
2	423	294	1820	0.232	423	0.3	2.772	A
3	556	197	1515	0.367	558	0.6	3.977	A
4	121	638	1828	0.066	121	0.1	2.265	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	297	181	1663	0.178	297	0.2	2.706	A
2	354	246	1851	0.191	354	0.3	2.583	A
3	466	165	1533	0.304	467	0.5	3.597	A
4	102	534	1900	0.053	102	0.1	2.152	A

Site 4 - 2026 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	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)
D5	2026 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	675	100.000
2		✓	366	100.000
3		✓	612	100.000
4		✓	122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	260	384	30
	2	123	0	205	38
	3	239	320	0	53
	4	18	42	62	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	4	8
	2	14	0	20	28
	3	7	18	0	14
	4	0	12	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.50	5.12	1.1	A
2	0.24	3.38	0.4	A
3	0.45	4.89	0.9	A
4	0.08	2.52	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	508	318	1577	0.322	506	0.5	3.535	A
2	276	358	1778	0.155	275	0.2	2.841	A
3	461	144	1545	0.298	459	0.5	3.743	A
4	92	512	1915	0.048	92	0.1	2.228	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	607	381	1537	0.395	606	0.7	4.067	A
2	329	428	1731	0.190	329	0.3	3.046	A
3	550	172	1529	0.360	550	0.6	4.155	A
4	110	613	1845	0.059	110	0.1	2.341	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	466	1484	0.501	742	1.0	5.097	A
2	403	524	1667	0.242	403	0.4	3.378	A
3	674	211	1507	0.447	673	0.9	4.874	A
4	134	751	1750	0.077	134	0.1	2.515	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	467	1483	0.501	743	1.1	5.120	A
2	403	525	1667	0.242	403	0.4	3.379	A
3	674	211	1507	0.447	674	0.9	4.887	A
4	134	752	1749	0.077	134	0.1	2.516	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	607	382	1537	0.395	608	0.7	4.090	A
2	329	430	1730	0.190	329	0.3	3.053	A
3	550	173	1529	0.360	551	0.6	4.172	A
4	110	615	1844	0.059	110	0.1	2.343	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	508	320	1576	0.323	509	0.5	3.555	A
2	276	360	1776	0.155	276	0.2	2.846	A
3	461	145	1544	0.298	461	0.5	3.783	A
4	92	515	1913	0.048	92	0.1	2.231	A

Site 4 - 2026 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.75	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)
D6	2026 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	407	100.000
2		✓	486	100.000
3		✓	639	100.000
4		✓	139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	149	229	28
	2	166	0	289	31
	3	417	148	0	74
	4	39	21	79	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	1	0
	2	5	0	9	7
	3	3	10	0	13
	4	6	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.28	3.19	0.4	A
2	0.30	3.13	0.5	A
3	0.47	4.86	0.9	A
4	0.09	2.48	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	306	186	1659	0.185	305	0.2	2.729	A
2	366	253	1847	0.198	365	0.3	2.609	A
3	481	170	1530	0.314	479	0.5	3.611	A
4	105	549	1890	0.055	104	0.1	2.166	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	366	223	1636	0.224	366	0.3	2.909	A
2	437	303	1814	0.241	437	0.3	2.808	A
3	574	203	1512	0.380	574	0.6	4.052	A
4	125	657	1815	0.069	125	0.1	2.288	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	448	273	1605	0.279	448	0.4	3.194	A
2	535	371	1769	0.302	535	0.5	3.132	A
3	704	249	1486	0.473	702	0.9	4.846	A
4	153	805	1713	0.089	153	0.1	2.479	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	448	273	1605	0.279	448	0.4	3.195	A
2	535	371	1769	0.303	535	0.5	3.135	A
3	704	249	1486	0.473	704	0.9	4.860	A
4	153	806	1712	0.089	153	0.1	2.480	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	366	223	1636	0.224	366	0.3	2.911	A
2	437	303	1814	0.241	437	0.3	2.813	A
3	574	203	1511	0.380	576	0.7	4.070	A
4	125	659	1814	0.069	125	0.1	2.292	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	306	187	1659	0.185	307	0.2	2.736	A
2	366	254	1846	0.198	366	0.3	2.615	A
3	481	170	1530	0.314	482	0.5	3.629	A
4	105	552	1888	0.055	105	0.1	2.168	A

Site 4 - 2031 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.98	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)
D7	2031 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	728	100.000
2		✓	399	100.000
3		✓	664	100.000
4		✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	281	413	33
	2	133	0	225	41
	3	258	349	0	57
	4	19	46	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	5	8
	2	14	0	21	30
	3	8	19	0	15
	4	0	12	19	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.55	5.84	1.3	A
2	0.27	3.58	0.4	A
3	0.49	5.36	1.1	A
4	0.09	2.62	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	548	347	1558	0.352	546	0.6	3.770	A
2	300	386	1759	0.171	299	0.2	2.944	A
3	500	156	1538	0.325	498	0.5	3.942	A
4	100	556	1885	0.053	100	0.1	2.287	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	654	416	1515	0.432	654	0.8	4.434	A
2	359	462	1708	0.210	358	0.3	3.184	A
3	597	187	1521	0.393	596	0.7	4.440	A
4	120	665	1809	0.066	119	0.1	2.416	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	802	509	1457	0.550	800	1.3	5.800	A
2	439	566	1640	0.268	439	0.4	3.577	A
3	731	229	1497	0.488	730	1.1	5.343	A
4	146	814	1706	0.086	146	0.1	2.618	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	802	510	1457	0.550	802	1.3	5.839	A
2	439	567	1639	0.268	439	0.4	3.582	A
3	731	229	1497	0.488	731	1.1	5.363	A
4	146	816	1705	0.086	146	0.1	2.619	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	654	417	1515	0.432	656	0.8	4.466	A
2	359	464	1707	0.210	359	0.3	3.189	A
3	597	187	1521	0.393	598	0.7	4.461	A
4	120	668	1808	0.066	120	0.1	2.419	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	548	349	1557	0.352	549	0.6	3.796	A
2	300	388	1757	0.171	301	0.2	2.953	A
3	500	157	1538	0.325	501	0.6	3.966	A
4	100	559	1883	0.053	100	0.1	2.290	A

Site 4 - 2031 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.03	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)
D8	2031 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	437	100.000
2		✓	525	100.000
3		✓	689	100.000
4		✓	151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	160	246	30
	2	179	0	313	33
	3	448	160	0	81
	4	42	23	86	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	2	0
	2	5	0	10	8
	3	3	10	0	14
	4	6	12	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	3.35	0.4	A
2	0.33	3.32	0.5	A
3	0.51	5.31	1.1	A
4	0.10	2.59	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	329	202	1650	0.199	328	0.3	2.812	A
2	395	272	1834	0.216	394	0.3	2.700	A
3	519	182	1523	0.341	517	0.5	3.774	A
4	114	591	1861	0.061	113	0.1	2.225	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	393	242	1625	0.242	393	0.3	3.017	A
2	472	326	1799	0.262	472	0.4	2.933	A
3	619	218	1503	0.412	619	0.7	4.301	A
4	136	708	1780	0.076	136	0.1	2.364	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	481	296	1591	0.302	481	0.4	3.347	A
2	578	399	1750	0.330	577	0.5	3.317	A
3	759	267	1476	0.514	757	1.1	5.289	A
4	166	866	1671	0.100	166	0.1	2.584	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	481	296	1590	0.303	481	0.4	3.351	A
2	578	400	1750	0.330	578	0.5	3.320	A
3	759	268	1475	0.514	759	1.1	5.311	A
4	166	868	1670	0.100	166	0.1	2.586	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	393	242	1624	0.242	393	0.3	3.021	A
2	472	327	1798	0.262	473	0.4	2.939	A
3	619	219	1503	0.412	621	0.7	4.323	A
4	136	710	1779	0.076	136	0.1	2.367	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	329	203	1649	0.200	329	0.3	2.819	A
2	395	274	1833	0.216	396	0.3	2.709	A
3	519	183	1523	0.341	520	0.5	3.796	A
4	114	594	1859	0.061	114	0.1	2.228	A

Site 4 - 2041 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.51	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)
D9	2041 DO NOTHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	773	100.000
2		✓	432	100.000
3		✓	713	100.000
4		✓	143	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	299	438	35
	2	143	0	244	45
	3	274	378	0	61
	4	20	49	74	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	5	9
	2	16	0	23	32
	3	8	20	0	16
	4	0	13	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.60	6.61	1.5	A
2	0.29	3.84	0.5	A
3	0.53	5.88	1.3	A
4	0.09	2.74	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	582	376	1541	0.378	579	0.6	3.971	A
2	325	411	1742	0.187	324	0.3	3.082	A
3	537	168	1531	0.351	534	0.6	4.134	A
4	108	597	1857	0.058	107	0.1	2.363	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	695	450	1494	0.465	694	0.9	4.775	A
2	388	492	1689	0.230	388	0.4	3.361	A
3	641	201	1513	0.424	640	0.8	4.729	A
4	129	715	1775	0.072	128	0.1	2.510	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	851	551	1431	0.595	849	1.5	6.544	A
2	476	602	1616	0.294	475	0.5	3.829	A
3	785	246	1487	0.528	783	1.3	5.854	A
4	157	875	1665	0.095	157	0.1	2.742	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	851	552	1430	0.595	851	1.5	6.606	A
2	476	603	1615	0.295	476	0.5	3.836	A
3	785	247	1487	0.528	785	1.3	5.883	A
4	157	876	1663	0.095	157	0.1	2.744	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	695	451	1493	0.465	697	0.9	4.823	A
2	388	494	1687	0.230	389	0.4	3.370	A
3	641	202	1512	0.424	643	0.9	4.760	A
4	129	717	1773	0.072	129	0.1	2.515	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	582	378	1539	0.378	583	0.7	4.008	A
2	325	413	1741	0.187	326	0.3	3.089	A
3	537	169	1531	0.351	538	0.6	4.183	A
4	108	600	1854	0.058	108	0.1	2.368	A

Site 4 - 2041 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	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)
D10	2041 DO NOTHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	462	100.000
2		✓	559	100.000
3		✓	733	100.000
4		✓	160	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	170	260	31
	2	190	0	334	35
	3	474	172	0	87
	4	45	24	91	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	2	0
	2	5	0	11	8
	3	3	11	0	16
	4	7	13	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.32	3.49	0.5	A
2	0.35	3.49	0.6	A
3	0.55	5.79	1.3	A
4	0.11	2.68	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	348	215	1641	0.212	347	0.3	2.879	A
2	421	287	1824	0.231	420	0.3	2.783	A
3	552	193	1517	0.364	549	0.6	3.941	A
4	120	628	1835	0.066	120	0.1	2.275	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	415	258	1614	0.257	415	0.4	3.110	A
2	503	344	1787	0.281	502	0.4	3.046	A
3	659	231	1496	0.440	658	0.8	4.558	A
4	144	752	1750	0.082	144	0.1	2.430	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	509	315	1578	0.322	508	0.5	3.484	A
2	615	421	1736	0.355	615	0.6	3.490	A
3	807	283	1467	0.550	805	1.3	5.762	A
4	176	920	1633	0.108	176	0.1	2.678	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	509	316	1578	0.322	509	0.5	3.488	A
2	615	422	1735	0.355	615	0.6	3.493	A
3	807	283	1467	0.550	807	1.3	5.795	A
4	176	922	1632	0.108	176	0.1	2.680	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	415	259	1614	0.257	416	0.4	3.117	A
2	503	345	1786	0.281	503	0.4	3.053	A
3	659	231	1496	0.441	661	0.8	4.590	A
4	144	754	1748	0.082	144	0.1	2.435	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	348	216	1640	0.212	348	0.3	2.887	A
2	421	289	1823	0.231	421	0.3	2.791	A
3	552	194	1517	0.364	553	0.6	3.369	A
4	120	631	1833	0.066	121	0.1	2.280	A

Site 4 - 2024 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.36	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)
D11	2024 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	654	100.000
2		✓	352	100.000
3		✓	592	100.000
4		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	252	372	29
	2	118	0	198	36
	3	232	309	0	51
	4	17	41	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	5	8
	2	14	0	19	28
	3	8	18	0	14
	4	0	12	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.48	4.93	1.0	A
2	0.23	3.29	0.4	A
3	0.43	4.75	0.9	A
4	0.07	2.48	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	308	1583	0.311	490	0.5	3.482	A
2	265	347	1785	0.148	264	0.2	2.794	A
3	446	138	1548	0.288	444	0.5	3.694	A
4	89	495	1927	0.046	89	0.1	2.211	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	588	368	1545	0.380	587	0.6	3.976	A
2	316	415	1740	0.182	316	0.3	2.986	A
3	532	165	1533	0.347	532	0.6	4.081	A
4	106	593	1860	0.057	106	0.1	2.318	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	720	451	1494	0.482	719	1.0	4.912	A
2	388	508	1678	0.231	387	0.4	3.293	A
3	652	202	1512	0.431	651	0.9	4.739	A
4	130	726	1768	0.074	130	0.1	2.482	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	720	451	1493	0.482	720	1.0	4.930	A
2	388	509	1678	0.231	388	0.4	3.295	A
3	652	203	1512	0.431	652	0.9	4.751	A
4	130	727	1767	0.074	130	0.1	2.483	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	588	369	1545	0.381	589	0.7	3.994	A
2	316	416	1739	0.182	317	0.3	2.992	A
3	532	166	1533	0.347	533	0.6	4.093	A
4	106	594	1858	0.057	106	0.1	2.320	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	309	1582	0.311	493	0.5	3.503	A
2	265	348	1784	0.149	265	0.2	2.301	A
3	446	139	1548	0.288	446	0.5	3.714	A
4	89	497	1925	0.046	89	0.1	2.214	A

Site 4 - 2024 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.67	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.67	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)
D12	2024 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	395	100.000
2		✓	471	100.000
3		✓	621	100.000
4		✓	135	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	144	223	27
	2	161	0	280	30
	3	405	144	0	72
	4	38	20	77	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	2	0
	2	5	0	10	7
	3	3	9	0	13
	4	6	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.27	3.16	0.4	A
2	0.29	3.09	0.4	A
3	0.46	4.70	0.9	A
4	0.09	2.45	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	297	181	1663	0.179	296	0.2	2.720	A
2	355	246	1851	0.192	354	0.3	2.596	A
3	468	164	1533	0.305	466	0.5	3.548	A
4	102	533	1901	0.053	101	0.1	2.149	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	355	216	1640	0.216	355	0.3	2.892	A
2	423	295	1819	0.233	423	0.3	2.785	A
3	558	197	1515	0.368	558	0.6	3.961	A
4	121	639	1828	0.066	121	0.1	2.265	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	435	265	1610	0.270	435	0.4	3.163	A
2	519	361	1776	0.292	518	0.4	3.093	A
3	684	241	1490	0.459	683	0.9	4.691	A
4	149	782	1729	0.086	149	0.1	2.446	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	435	265	1610	0.270	435	0.4	3.163	A
2	519	361	1775	0.292	519	0.4	3.094	A
3	684	241	1490	0.459	684	0.9	4.705	A
4	149	783	1728	0.086	149	0.1	2.447	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	355	217	1640	0.217	355	0.3	2.896	A
2	423	295	1819	0.233	424	0.3	2.788	A
3	558	197	1515	0.368	559	0.6	3.977	A
4	121	640	1827	0.066	121	0.1	2.267	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	297	182	1662	0.179	298	0.2	2.726	A
2	355	247	1851	0.192	355	0.3	2.600	A
3	468	165	1533	0.305	468	0.5	3.568	A
4	102	536	1899	0.054	102	0.1	2.153	A

Site 4 - 2026 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.69	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)
D13	2026 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	692	100.000
2		✓	400	100.000
3		✓	641	100.000
4		✓	122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	260	401	30
	2	123	0	239	38
	3	249	339	0	53
	4	18	42	62	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	5	8
	2	14	0	19	28
	3	8	18	0	14
	4	0	12	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.52	5.38	1.1	A
2	0.27	3.50	0.4	A
3	0.47	5.10	1.0	A
4	0.08	2.55	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	521	332	1568	0.332	519	0.5	3.625	A
2	301	370	1769	0.170	300	0.2	2.895	A
3	483	144	1545	0.312	481	0.5	3.835	A
4	92	534	1900	0.048	92	0.1	2.247	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	398	1527	0.407	621	0.7	4.206	A
2	360	444	1721	0.209	359	0.3	3.125	A
3	576	172	1529	0.377	576	0.7	4.287	A
4	110	639	1827	0.060	110	0.1	2.366	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	762	487	1471	0.518	760	1.1	5.352	A
2	440	543	1655	0.266	440	0.4	3.502	A
3	706	211	1507	0.468	705	1.0	5.088	A
4	134	783	1728	0.078	134	0.1	2.549	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	762	488	1470	0.518	762	1.1	5.378	A
2	440	544	1654	0.266	440	0.4	3.504	A
3	706	211	1507	0.468	706	1.0	5.103	A
4	134	784	1727	0.078	134	0.1	2.551	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	399	1526	0.408	624	0.7	4.232	A
2	360	445	1720	0.209	360	0.3	3.132	A
3	576	173	1529	0.377	577	0.7	4.304	A
4	110	641	1826	0.060	110	0.1	2.370	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	521	334	1567	0.333	522	0.5	3.651	A
2	301	372	1768	0.170	301	0.2	2.903	A
3	483	145	1544	0.312	483	0.5	3.857	A
4	92	537	1898	0.048	92	0.1	2.250	A

Site 4 - 2026 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.94	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)
D14	2026 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	413	100.000
2		✓	497	100.000
3		✓	682	100.000
4		✓	139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	149	235	28
	2	166	0	300	31
	3	431	177	0	74
	4	39	21	79	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	6	2	0
	2	5	0	10	7
	3	3	9	0	13
	4	6	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.29	3.29	0.4	A
2	0.31	3.20	0.5	A
3	0.51	5.17	1.1	A
4	0.09	2.53	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	311	208	1646	0.189	310	0.2	2.782	A
2	374	257	1844	0.203	373	0.3	2.644	A
3	513	170	1530	0.335	511	0.5	3.719	A
4	105	581	1868	0.056	104	0.1	2.193	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	371	249	1620	0.229	371	0.3	2.976	A
2	447	308	1810	0.247	446	0.4	2.852	A
3	613	203	1512	0.406	612	0.7	4.220	A
4	125	696	1788	0.070	125	0.1	2.325	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	455	305	1585	0.287	454	0.4	3.287	A
2	547	377	1765	0.310	547	0.5	3.193	A
3	751	249	1486	0.505	749	1.1	5.148	A
4	153	852	1680	0.091	153	0.1	2.531	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	455	305	1585	0.287	455	0.4	3.288	A
2	547	378	1764	0.310	547	0.5	3.196	A
3	751	249	1486	0.505	751	1.1	5.167	A
4	153	853	1679	0.091	153	0.1	2.533	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	371	249	1620	0.229	372	0.3	2.979	A
2	447	309	1810	0.247	447	0.4	2.855	A
3	613	203	1511	0.406	614	0.7	4.241	A
4	125	698	1787	0.070	125	0.1	2.327	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	311	209	1645	0.189	311	0.2	2.786	A
2	374	258	1843	0.203	374	0.3	2.651	A
3	513	170	1530	0.336	514	0.5	3.744	A
4	105	584	1865	0.056	105	0.1	2.196	A

Site 4 - 2031 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.20	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)
D15	2031 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	745	100.000
2		✓	433	100.000
3		✓	693	100.000
4		✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	281	430	33
	2	133	0	259	41
	3	268	368	0	57
	4	19	46	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	5	8
	2	14	0	20	30
	3	8	19	0	15
	4	0	12	20	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.57	6.14	1.4	A
2	0.29	3.72	0.5	A
3	0.51	5.60	1.2	A
4	0.09	2.67	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	561	361	1550	0.362	558	0.6	3.850	A
2	326	399	1750	0.186	325	0.3	3.003	A
3	522	156	1538	0.339	519	0.6	4.026	A
4	100	577	1870	0.054	100	0.1	2.316	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	670	433	1505	0.445	669	0.8	4.568	A
2	389	478	1698	0.229	389	0.4	3.270	A
3	623	187	1521	0.410	622	0.8	4.570	A
4	120	691	1791	0.067	119	0.1	2.452	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	820	530	1444	0.568	818	1.4	6.089	A
2	477	584	1627	0.293	476	0.5	3.717	A
3	763	229	1497	0.510	761	1.2	5.575	A
4	146	846	1684	0.087	146	0.1	2.666	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	820	531	1443	0.568	820	1.4	6.136	A
2	477	586	1627	0.293	477	0.5	3.723	A
3	763	229	1497	0.510	763	1.2	5.598	A
4	146	848	1683	0.087	146	0.1	2.668	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	670	434	1504	0.445	672	0.9	4.609	A
2	389	480	1697	0.229	390	0.4	3.279	A
3	623	187	1521	0.410	625	0.8	4.596	A
4	120	694	1790	0.067	120	0.1	2.457	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	561	363	1548	0.362	562	0.6	3.882	A
2	326	401	1749	0.186	326	0.3	3.012	A
3	522	157	1538	0.339	523	0.6	4.053	A
4	100	581	1868	0.054	100	0.1	2.319	A

Site 4 - 2031 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.25	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)
D16	2031 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	443	100.000
2		✓	536	100.000
3		✓	733	100.000
4		✓	151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	160	252	30
	2	179	0	324	33
	3	463	189	0	81
	4	42	23	86	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	2	0
	2	5	0	10	8
	3	3	10	0	14
	4	6	12	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.31	3.44	0.5	A
2	0.34	3.37	0.6	A
3	0.55	5.70	1.3	A
4	0.10	2.64	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	334	224	1636	0.204	332	0.3	2.858	A
2	404	277	1831	0.220	402	0.3	2.722	A
3	552	182	1523	0.362	549	0.6	3.904	A
4	114	624	1838	0.062	113	0.1	2.254	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	398	268	1608	0.248	398	0.3	3.081	A
2	482	331	1795	0.268	481	0.4	2.964	A
3	659	218	1503	0.438	658	0.8	4.505	A
4	136	747	1753	0.077	136	0.1	2.404	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	488	328	1571	0.311	487	0.5	3.440	A
2	590	406	1746	0.338	590	0.5	3.366	A
3	807	267	1476	0.547	805	1.3	5.671	A
4	166	914	1637	0.102	166	0.1	2.643	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	488	328	1570	0.311	488	0.5	3.444	A
2	590	406	1745	0.338	590	0.6	3.369	A
3	807	268	1475	0.547	807	1.3	5.701	A
4	166	916	1636	0.102	166	0.1	2.645	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	398	268	1608	0.248	399	0.3	3.085	A
2	482	332	1795	0.269	482	0.4	2.970	A
3	659	219	1503	0.438	661	0.8	4.536	A
4	136	750	1751	0.078	136	0.1	2.407	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	334	225	1635	0.204	334	0.3	2.865	A
2	404	278	1830	0.220	404	0.3	2.731	A
3	552	183	1523	0.362	553	0.6	3.932	A
4	114	627	1836	0.062	114	0.1	2.258	A

Site 4 - 2041 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	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)
D17	2041 DO SOMETHING	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	790	100.000
2		✓	466	100.000
3		✓	742	100.000
4		✓	143	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	299	455	35
	2	143	0	278	45
	3	284	397	0	61
	4	20	49	74	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	8	5	9
	2	16	0	21	32
	3	9	20	0	16
	4	0	13	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.61	6.99	1.7	A
2	0.32	3.98	0.6	A
3	0.55	6.19	1.4	A
4	0.10	2.78	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	390	1532	0.388	592	0.7	4.060	A
2	351	424	1734	0.202	350	0.3	3.127	A
3	559	168	1531	0.365	556	0.7	4.242	A
4	108	618	1842	0.058	107	0.1	2.383	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	710	467	1483	0.479	709	1.0	4.934	A
2	419	507	1679	0.250	419	0.4	3.439	A
3	667	201	1513	0.441	666	0.9	4.895	A
4	129	741	1757	0.073	128	0.1	2.537	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	870	571	1418	0.613	867	1.7	6.911	A
2	513	620	1604	0.320	512	0.6	3.968	A
3	817	246	1487	0.549	815	1.4	6.152	A
4	157	906	1643	0.096	157	0.1	2.782	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	870	573	1417	0.614	870	1.7	6.985	A
2	513	622	1602	0.320	513	0.6	3.977	A
3	817	247	1487	0.549	817	1.4	6.188	A
4	157	908	1641	0.096	157	0.1	2.785	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	710	469	1482	0.479	713	1.0	4.991	A
2	419	510	1677	0.250	420	0.4	3.447	A
3	667	202	1512	0.441	669	0.9	4.930	A
4	129	744	1755	0.073	129	0.1	2.541	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	595	392	1530	0.389	596	0.7	4.101	A
2	351	426	1732	0.203	351	0.3	3.140	A
3	559	169	1531	0.365	560	0.7	4.274	A
4	108	622	1839	0.059	108	0.1	2.387	A

Site 4 - 2041 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.54	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)
D18	2041 DO SOMETHING	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	467	100.000
2		✓	571	100.000
3		✓	775	100.000
4		✓	160	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	1	170	265	31
	2	190	0	346	35
	3	488	200	0	87
	4	45	24	91	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	7	2	0
	2	5	0	11	8
	3	3	10	0	15
	4	7	13	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.33	3.57	0.5	A
2	0.36	3.55	0.6	A
3	0.58	6.22	1.5	A
4	0.11	2.74	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	352	236	1628	0.216	350	0.3	2.917	A
2	430	291	1822	0.236	429	0.3	2.807	A
3	583	193	1517	0.385	581	0.7	4.062	A
4	120	659	1814	0.066	120	0.1	2.304	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	420	283	1599	0.263	419	0.4	3.163	A
2	513	349	1784	0.288	513	0.4	3.080	A
3	697	231	1496	0.466	696	0.9	4.761	A
4	144	789	1724	0.083	144	0.1	2.470	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	514	346	1559	0.330	514	0.5	3.566	A
2	629	427	1732	0.363	628	0.6	3.545	A
3	853	283	1467	0.582	851	1.5	6.175	A
4	176	966	1602	0.110	176	0.1	2.737	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	514	347	1559	0.330	514	0.5	3.570	A
2	629	427	1732	0.363	629	0.6	3.548	A
3	853	283	1467	0.582	853	1.5	6.218	A
4	176	968	1600	0.110	176	0.1	2.740	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	420	284	1598	0.263	420	0.4	3.170	A
2	513	349	1783	0.288	514	0.4	3.087	A
3	697	231	1496	0.466	699	0.9	4.801	A
4	144	792	1722	0.084	144	0.1	2.476	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	352	237	1627	0.216	352	0.3	2.925	A
2	430	292	1821	0.236	430	0.3	2.315	A
3	583	194	1517	0.385	585	0.7	4.096	A
4	120	663	1811	0.067	121	0.1	2.310	A

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Mobility Management Plan

M1 Business Park – Zones A & F

Client: Vida M1 Limited

Date: March 2024

Job Number: 16_206A

CONSULTING ENGINEERS

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Document Control Sheet

Project Name:	M1 Business Park – Zones A & F
Project Number:	16_206A
Report Title:	Mobility Management Plan
Filename:	RPT-16_206A-005

Issue No.	Issue Status	Date	Prepared by	Checked by
0	Planning Issue	28/03/2024	FFS	LP

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1 Introduction

1.1 Overview

Clifton Scannell Emerson Associates (CSEA) have been appointed by Vida M1 Limited to prepare this Mobility Management Plan (MMP) in support of a planning application for the construction of the civil infrastructure to service future-planned developments on lands situated along the M1 Motorway – near Junction 5, in the Townlands of Rowans Big and Rowans Little, Fingal County Council (FCC).

1.2 Site Location

The subject lands, covering an area of 33.81 hectares, is situated to the west of the M1 motorway approximately 5.5km northeast of Lusk and 5.5km southwest of Balbriggan. The Bhailsigh Road (L1140), bisects the site in an east-west direction and divides the lands into two zones. The northern portion, situated in Rowans Big Towland is designated as Zone A and the southern portion, in Rowans Little Townland is designated as Zone F. Within the subject red line boundary L1140 features an existing roundabout which currently provides the access to both Zones.

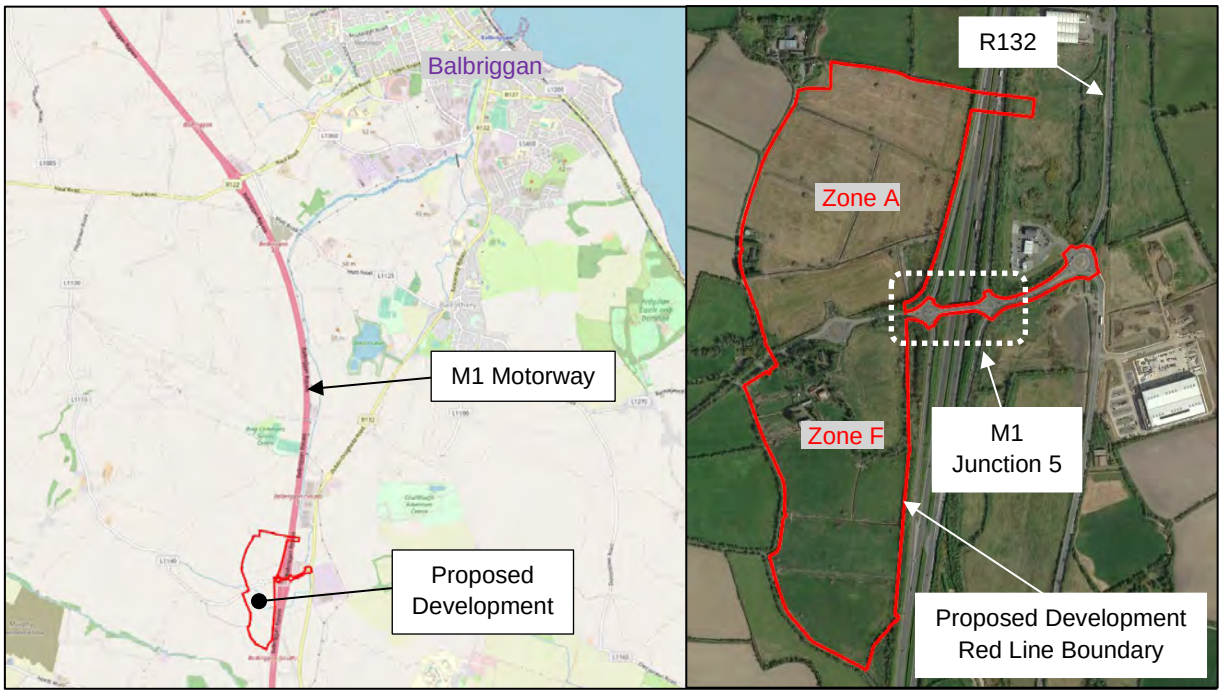


Figure 1.1 *Site Location.*

1.3 Proposed Development Description

The proposed development consists of:

- Demolition of a single-storey 200-square-metre (m²) house, an abandoned water storage reservoir and associated pump stations, all located on the western boundary of Zone A;
- Demolition of 13 No. existing buildings consisting of agricultural sheds, stables, warehouses and residential dwellings located in Zone F;
- Provision of civil infrastructure to service future-planned commercial properties on the lands located on the western side of the M1 Business Park and M1 motorway, referred to as Zone A and F.

- Zone A and F lands are located north and south of Bhailsigh Road (L1140), respectively, which connect to Junction 5 of the M1 Motorway and are located in the townlands of Rowan's Big and Rowan's Little.
- Preparation of indicative Masterplan for Zone A and F which contains layouts of the future planned commercial properties, consisting of mixed-use, warehousing and distribution units including associated loading bays for HGVs, service compounds, ESBN substations and parking areas to service each commercial unit site, which would be subject to individual planning permission applications.
- Provision of civil infrastructure designed to service various mixed-use buildings consisting of 20k- to 105k-square-feet (ft^2) units with the potential to combine plots should larger units be required.
- In Zone A and F, the civil infrastructure will consist of primary access roads including pedestrian/cycle paths, watermains, surface water and foul drainage networks. utility ducting for services consisting of power and telecommunications.
- The primary access roads into Zone A and F will consist of 7.5-metre-wide single-carriageways originating from Bhailsigh Road (L1140) roundabout including segregated cycle tracks and pedestrian footpaths with associated verges.
- Upgrading of the existing Balrickard stream crossing located in Zone F in accordance with the Office of Public Works Section 50 of the Arterial Drainage Act (1945), guidelines.
- Individual access spurs will be provided from the primary access road to each of the future-planned commercial land parcels.
- Provision of pipelines and associated infrastructure for watermains to service future-planned commercial properties and
- Provision of surface water drainage infrastructure for the access road and associated infrastructure consisting of Sustainable Urban Drainage Systems features such as attenuation ponds, raingardens, bioretention ponds, Nature-based Solutions (NBS) and conveyance networks.

A plan layout drawing of the proposed development is shown on CSEA Drawing 16_206A-CSE-GEN-XX-DR-C-1610 accompanying the documentation package which is reproduced in Figure 1.2.

Figure 1.2 *Proposed Development Plan Layout.*

1.4 Scope of the MMP

The development proposed as part of the subject planning application is solely related to the construction of the civil infrastructure to service future-planned commercial buildings. The commercial buildings themselves will be subject to future planning applications.

Even though the commercial buildings are not currently proposed, this Plan has been prepared to promote the use of sustainable travel options and reduce reliance on single-occupancy car usage among workers during both the construction and the operational phases. The construction phase deals with the travel patterns and objectives associated with the construction of the proposed civil

infrastructure outlined in this application only, while the operational phase deals with the travel patterns and associated travel objectives related to the operation of the future-planned commercial buildings.

The targets set out in the Plan have been established based on existing available information and are aimed to be achieved against the background of expanding local facilities for active travel modes and by enhancing awareness of active and collective travel options that staff will be able to avail on.

1.5 Intended Year of Opening

It is estimated that the proposed development (civil infrastructure to serve future-planned commercial buildings) will be completed by late 2024 / early 2025. The future-planned commercial buildings, subject to separate future planning applications, are assumed to be operational by 2026.

2 Policy Context and Guidance

2.1 Introduction

This section of the report presents an overview of the national and local policies deemed relevant to the preparation of this Mobility Management Plan.

2.2 National Policies

2.2.1 Workplace Travel Plans, a Guide for Implementers – NTA

The Workplace Travel Plans, a Guide for Implementers was published by the National Transport Authority with the aim of providing guidance for the implementation of Travel Plans in the workplace.

This document defines Workplace Travel Plans as "*a package of measures aimed at supporting sustainable travel for work-related journeys. It comprises actions to promote walking, cycling, public transport, carsharing, the use of technology instead of travel, and flexible working practices*."

This document provides a guide to the process of implementing a Workplace Travel Plan. This is reproduced below:

"***Year 1***

- *Sponsor/Steering Group agrees to promote more sustainable travel as part of a Workplace Travel Plan.*
- *Coordinator(s) appointed to implement plan.*
- *Coordinator conducts an Employee Travel Survey, Site Audit and Organisational Policy Review.*
- *Coordinator outlines an Action Plan to Sponsor / Steering Group based on Employee Travel Survey, Site Audit and Organisational Policy Review.*
- *Sponsor / Steering Group agrees on Action Plan / Timelines / Personnel Responsible / Resources available.*

Ongoing

- *Coordinator / HR / Facilities / Communications / Corporate Social Responsibility / Green Team / Other Personnel implement actions.*

Every 3 months or as required

- *Coordinator reviews progress of Action Plan with Sponsor / Steering Group.*
- *Coordinator updates Action Plan and continues implementation.*

After each event / annually / as required

- *Maintenance – Coordinator monitors progress (snapshot travel survey & other indicators) & updated Actions.*

Ongoing

- *Coordinator & Communications / Corporate Social Responsibility (CSR) publicise activities and seek accreditation / honours for work undertaken*."

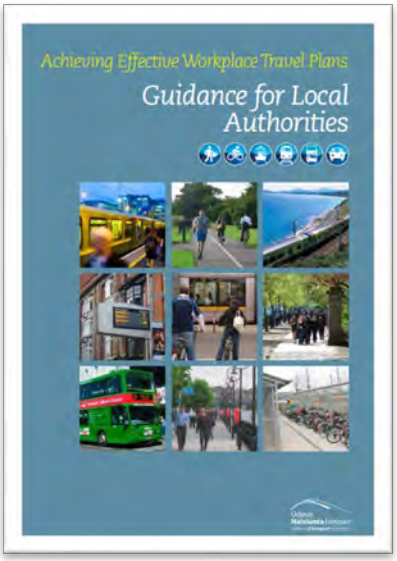
The guidance document recommends the appointment of a part-time or full-time Coordinator to implement the Workplace Travel Plan. The role of the coordinator is to "*enhance the organisation's sustainable travel options offerings through effective promotion and communication.*"

The following steps are recommended by the guidance in the development of a Travel Plan.

1. Review Travel Patterns and Policies – targeting the enquiries of:
   a. Organisational Policy Review
   b. Employee Travel Survey
   c. Site Audit
2. Identify & Implement Actions – which includes setting out suggested Action Plan to be implemented to make sustainable travel more attractive.
3. Monitor the Action Plan – which should focus on both Quantitative (Mode Share, bikes parked on site, number of car sharers, and others) and Qualitative (Employees attitudes towards sustainable travel, awards or accreditations for travel, support from senior management).

2.2.2 Achieving Effective Workplace Travel Plans, Guidance for Local Authorities

This document was published by the National Transport Authority (NTA) "*to assist local authorities in fully integrating the principles and practice of Workplace Travel Plans into both the development plan process and the development management process*."



This guidance provides efficient ways for local authorities to:

a) Set thresholds for Workplace Travel Plans.
b) Assess the need for a Workplace Travel Plan
c) Give practical guidance to developers and organisations on developing Workplace Travel Plans – including templates.
d) Assess the contents of Workplace Travel Plans.
e) Monitor, review and enforce Workplace Travel Plans.

This guidance document indicates that a 'Standard' Workplace Travel Plan should be required if an existing or proposed development has the potential to employ over 100 people. This document should include the following:

- Site Location.
- Occupier.
- Use.
- Trip Pattern and estimated number of trips.
- Accessibility Audit (off-Site).
- Site Audit (on-Site).
- Mode Share Targets.
- Action Plan.
- Monitoring and Review.

Furthermore, the guidance states that the applicant should identify a lead person as a Travel Plan Coordinator, who will be responsible for coordinating, implementing, and monitoring of the individual measures of the Workplace Travel Plan, regardless of whether the occupier is known or unknown.

Applicants should be aware that the provision of adequate infrastructure for pedestrians, cyclists and car sharers on their site is usually the key element in achieving the targets. When it comes to cycling,

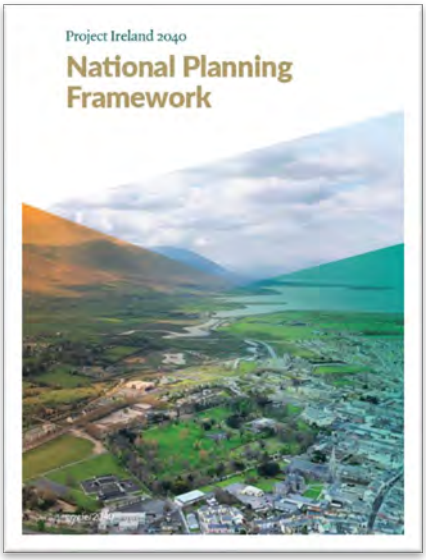
the guidance states that at the very least the provision of infrastructure should match the 10% cycling mode share target established by 'The National Cycle Policy framework' (NCPF).

In relation to Mode Share Targets, the guidance states that "*targets should be ambitious, deliverable and correspond to the best estimate of the maximum number of trips that can be made by non-car modes, assuming attention has been paid to reducing the need to travel.*"

It is encouraged that the applicant utilises local data/information before setting definitive targets for sustainable modes. Interrogation of the POWSCAR Database and the CSO report "A Profile of the Working Population of Large Towns" is a useful source for understanding travel patterns in the area when a workforce is not known.

In relation to Car Parking, the guidance promotes the implementation of parking restraints in order to encourage the use of sustainable travel options to access the site.

2.2.3 National Planning Framework Project Ireland 2040



This document was published by the Irish Department of Public Expenditure and Reform in February 2018 with the purpose to provide a high-level strategic plan to improve transport, tourism, and sport infrastructure by 2040.

Project Ireland 2040 seeks to achieve several strategic outcomes, building around the overarching themes of wellbeing, equality, and opportunity. **Sustainable Mobility** is included within ten shared priorities of this framework. This 'priority outcome' focuses on the provision of safe alternative active travel options to alleviate congestion and help to meet climate action objectives.

National Policy 27 of this document aims to "*ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed development and integrating physical facilities for all ages*."

2.2.4 National Physical Activity Plan

The National Physical Activity Plan for Ireland was first published by the department of Health and Department of Transport, Tourism and Sport in April 2019. The latest update to the document was published in July 2022.

The promotion of physical activity has been a priority for the Department of Health and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media in the context of the implementation of Healthy Ireland, A Framework for Improved Health and Wellbeing 2013 – 2025, and, more recently, the Healthy Ireland Strategic Action Plan.

This framework outlines actions under eight thematic areas, in which society can participate to achieve the goals.

Goals/Objectives:

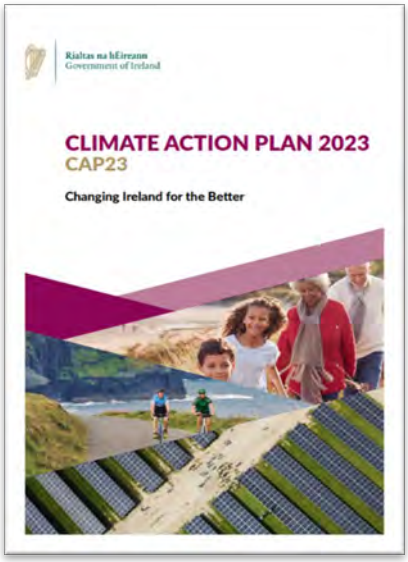
- Creating increased opportunities for people to be active in ways which fit into everyday lives, and which suits individual needs, circumstances and interests.
- Removing the barriers which people face to being active and encouraging people to recognise how to overcome those barriers.
- Enhancing cross-sectoral cooperation at national, local and community level to encourage physical activity at every level.
- Encouraging a supportive environment where physical activity becomes normal.
- Promoting good practice and finding new models of participation which get more people active.

This Plan sets out eight areas of action, which includes Workplaces. The Plan states:

"*Healthy workplace strategies are about providing a health promoting workplace environment through facilities, supportive cultures and/or policies. Existing programmes such as the Smarter Travel Workplaces and Smarter Travel Campus encourage employers and third level institutions to implement voluntary workplace and campus travel plans – or actions to encourage and support staff and students to walk, cycle, take public transport or car share on their commute. There are also opportunities for employers to support physical activity during the working day*."

2.2.5 Climate Action Plan

The Climate Action Plan 2023 (CAP) contains the Irish Government's plan for tackling climate breakdown and reduce Ireland's greenhouse gas emissions. It outlines the current state of play across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture, and charts a course of action towards ambitious decarbonisation targets.



The CAP aspirations are to achieve a net zero carbon energy system and create a resilient, vibrant, and sustainable country, with modal shift to public transport presented as one of the transport related objectives. *The Climate Action and Low Carbon Development (Amendment) Act 2021 commits Ireland to reach a legally binding target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels). Under the 2021 Act, Ireland's national climate objective requires the State to pursue and achieve, by no later than the end of the year 2050, the transition to a climate-resilient, biodiversity rich, environmentally sustainable, and climate-neutral economy.*

The Plan commits to expanding sustainable mobility options to provide meaningful alternatives to everyday private car journeys to reduce transport emissions. It is the goal to provide continued and enhanced investment in our walking, cycling and public transport infrastructure and services across the country.

In terms of active travel, the Programme for Government includes a commitment of €360 million per year to cycling and pedestrian projects for the lifetime of the Government. The role of Local Authorities is critical in delivering these programmes.

Table 15.7 of the CAP details the "*Key Actions to Deliver Abatement in Transport for the Period 2023-2025*", which, in terms of Active Travel Infrastructure Programme, include the advance roll-out of 1,000km walking/cycling infrastructure and advance roll-out of National Cycle and Greenway Network. In addition, the transport actions listed on the CAP aim to support the delivery of major transportation

projects, such as BusConnects and Dart+ Programme, as well as the electrification of bus fleet and the use of renewable fuels for transport.

The CAP also looks to *"promote the use of bicycles (including push bikes, electric bikes, and cargo bikes) and shared mobility options as an alternative to car use among employees and visitors by creating and maintaining facilities (both inside and outside of buildings) that support such options, including secure and accessible bicycle parking, shared mobility parking, and charging stations."*

This Plan promotes the electrification of the public and private vehicle fleet aiming to reduce the overall emissions and decarbonisation of the transport sector. It is the objective of the Plan to have an expected 30% of our private car fleet having switched to electric vehicles by 2030.

2.3 Local Policies

2.3.1 Fingal Development Plan 2023 - 2029

The Fingal Development Plan 2023 – 2029 (FDP) sets out the Council's policies and objectives for the development of the County over the period of 2023 to 2029. The Plan seeks to improve and expand in a sustainable manner the social, economic, cultural and environments assets of the County. The strategic vision of the FDP, as extracted from the Plan, is set out below:

"*Fingal will embrace healthy placemaking and economic prosperity through building cohesive and sustainable communities, where our cultural, natural and built environment is protected.*

Fingal will continue to be a County of distinctive environmental, historical and cultural assets and local communities, with sustainable development fostering a high-quality of life for those who live, work and visit here. A sustainable future for the County will be based on the interdependence of the themes of economic growth, social progress and environmental quality with the aim of increasing the County's self-reliance and resilience.

This Plan will ensure the continued growth of the County in a sustainable way and ensure the County continues to develop as a series of well-serviced, well-connected towns, villages and communities and a low carbon economy. In working to deliver all of this, we are committed to engaging with stakeholders, including local communities and residents to develop better solutions to the complex challenges we face and provide an improved quality of life for all."

In the perspective of the subject development site and the proposed scheme some pertinent policies and objectives include:

Strategic Objectives

- *"Create a competitive environment in which to do business. Promote, support and enable sustainable and economic development, enterprise and employment generation. Focus in particular on areas which are accessible by public and sustainable modes of transport. Enable settlements and rural areas to become self-sustaining through innovation and diversification of the rural economy.*
- *Reduce car dependency and promote and facilitate sustainable modes of transport. Prioritise walking, cycling and public transport, while supporting an efficient and effective transport system."*

Connectivity and Movement – Policies and Objectives

The Role of Transportation Policy in Addressing Climate Change

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

Integration of Land-Use and Transport

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

Mobility Management

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

Walking and Cycling (Active Travel)

Walking and cycling routes throughout the County's network will have regard to the NTA Cycle Network Plan for the GDA and the NTA's Cycle Manual while also allowing for the provision of routes identified by the Council that are not featured in the NTA Cycle Network Plan.

> "*Policy CMP7 – Pedestrian and Cycling Network: Secure the development of a high-quality, connected and inclusive pedestrian and cycling network and provision of supporting facilities / infrastructure across the County, including the upgrade of the existing network and support the integration of walking, cycling and physical activity with placemaking including public realm improvements, in collaboration with the NTA, other relevant stakeholders, local communities and adjoining Local Authorities. Routes within the network shall have regard to NTA and TII national standards and policies."*
>
> *"Policy CMP9 – Prioritisation of Pedestrians and Cyclists: Support the prioritisation of pedestrian and cyclists and the provision of improved public realm to make walking and cycling safer, healthier, quicker, more direct and more attractive."*
>
> *"Policy CMP10 – Bicycle Infrastructure: Improve bicycle priority measures and cycle parking infrastructure throughout the County in accordance with best accessibility practice."*
>
> *"Objective CMO6 – Improvements to the Pedestrian and Cyclist Environment: Maintain and improve the pedestrian and cyclist environment and promote the development of a network of pedestrian/cycle routes which link residential areas with schools, employment, recreational destinations and public transport stops to create a pedestrian/cyclist environment that is safe, accessible to all in accordance with best accessibility practice."*

Accessibility and Universal Design

> *"Policy CMP13 – Accessible Pedestrian and Cyclist Environment: Promote and facilitate a network of pedestrian and cycle routes and public realm that is universally accessible for all ages and abilities in accordance with best accessibility practice."*

Public Transport

> *"Objective CMO29 – Integration of Public Transport Services and Development: Work with the NTA, TII and other relevant national transport agencies to optimise accessibility to public*

transport, increase catchment and maximise permeability through the creation of high-quality walking and cycling routes linking to public transport stops."

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

Car Parking Management

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

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

Roads Network

"Policy CMP30 – Roads Infrastructure: Prioritise new road developments that facilitate improvements in the overall efficiency of the transportation network including through the provision of new bridge crossings or new cycling and walking infrastructure."

"Policy CMP31 – Supporting Sustainable Local Development: Prioritise new road developments that underpin new development areas that support sustainable local development."

"Policy CMP32 – Sustainable Roads Infrastructure: Prioritise changes to existing roads infrastructure that underpins sustainable development, maintains road safety and network efficiency."

3 Site Accessibility

3.1 Walking

3.1.1 Local Pedestrian Network

The pedestrian facilities currently available in the area are illustrated in Figure 3.1. It is comprised of c. 1.6m wide footpaths around the development's access roundabout, c. 2.0m wide footpaths along both sides of the M1 overbridge, c. 2.0m wide footpaths along the western side of the R132 and c. 2.0m wide footpaths along the eastern side of the R132. Dropped kerbs and tactile paving facilities are provided on the existing pedestrian crossings at the roundabouts.

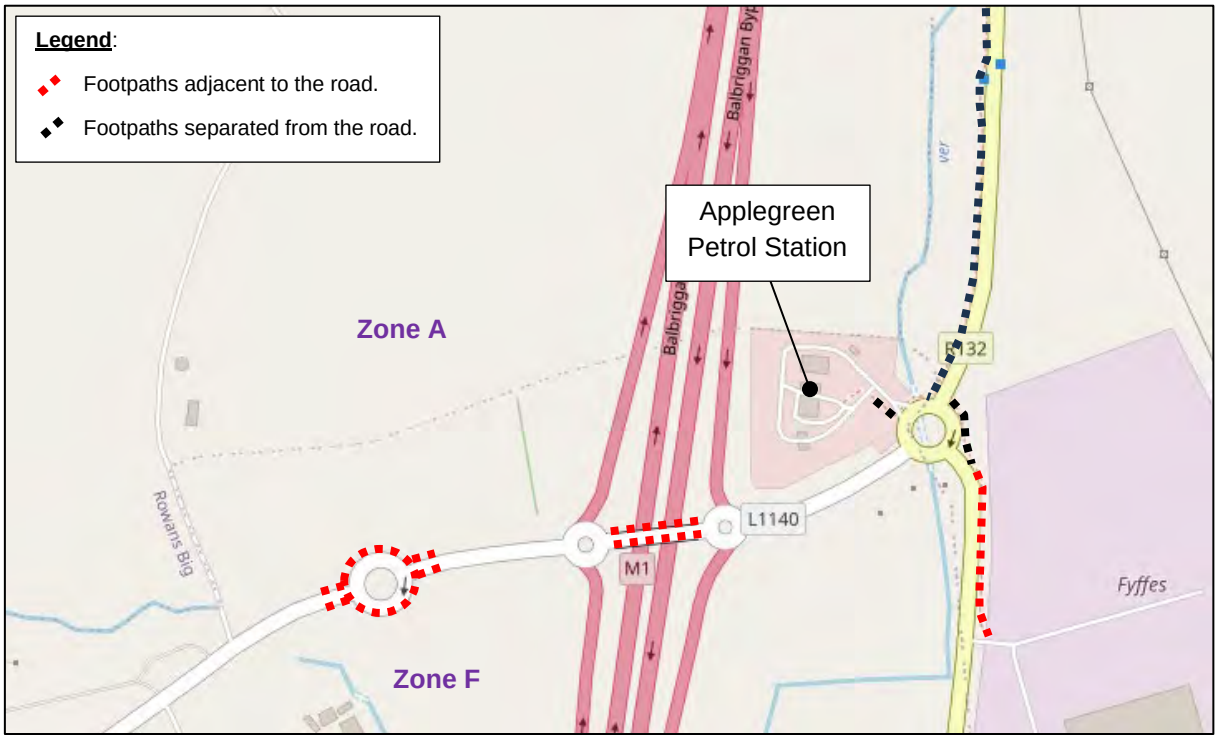


Figure 3.1 *Existing Local Pedestrian Facilities.*

As can be noted from above, the existing footpaths in the local area are disconnected from each other, which indicate that pedestrian's movement is currently constrained and not safe – especially for those crossing the M1.

As part of the subject application, new active travel facilities (cycle/pedestrian shared surface) are proposed to enhance connectivity and eliminate the existing gaps on footpaths. Details of these facilities are provided below.

3.1.2 Proposed Active Travel Facility along L1140

3.0m-wide shared paths (pedestrian/cycle shared surface) are proposed along both sides of the Bhailsigh Road (L1140). This facility is set to commence at the Bhailsigh Road (L1140) site access roundabout, extend along the M1 overbridge, and connect to the existing pedestrian infrastructure at the Applegreen Roundabout. Refer to Figure 3.2.

These facilities will enhance the active travel connectivity between the proposed development and the facilities along R132 and will also, by enhancing pedestrian connectivity, make the use of public bus service more attractive to those travelling to/from the proposed development.

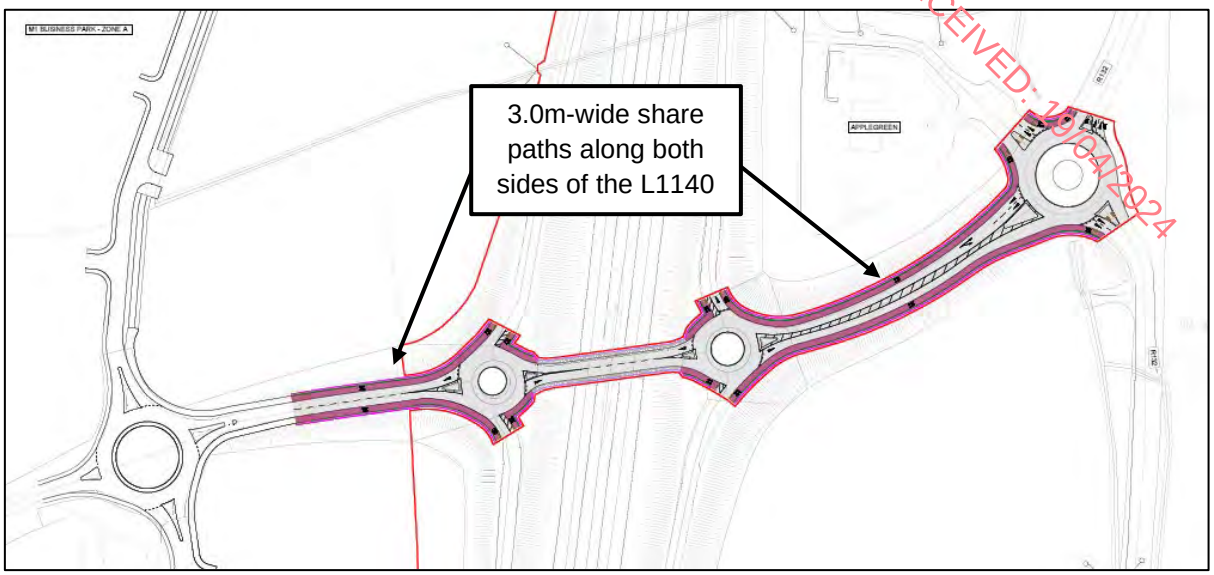


Figure 3.2 *Proposed Active Travel Facility along L1140.*

3.1.3 Walking Catchment

The document "The Route to Sustainable Commuting", published by the National Transport Authority (NTA) in March 2001, describes acceptable walking distances for pedestrians without mobility impairment. This document states that 4km (or c. 50 minutes) is the preferred maximum walking distance. Figure 3.3 below shows the walking distance achieved from the site access in 50 minutes.

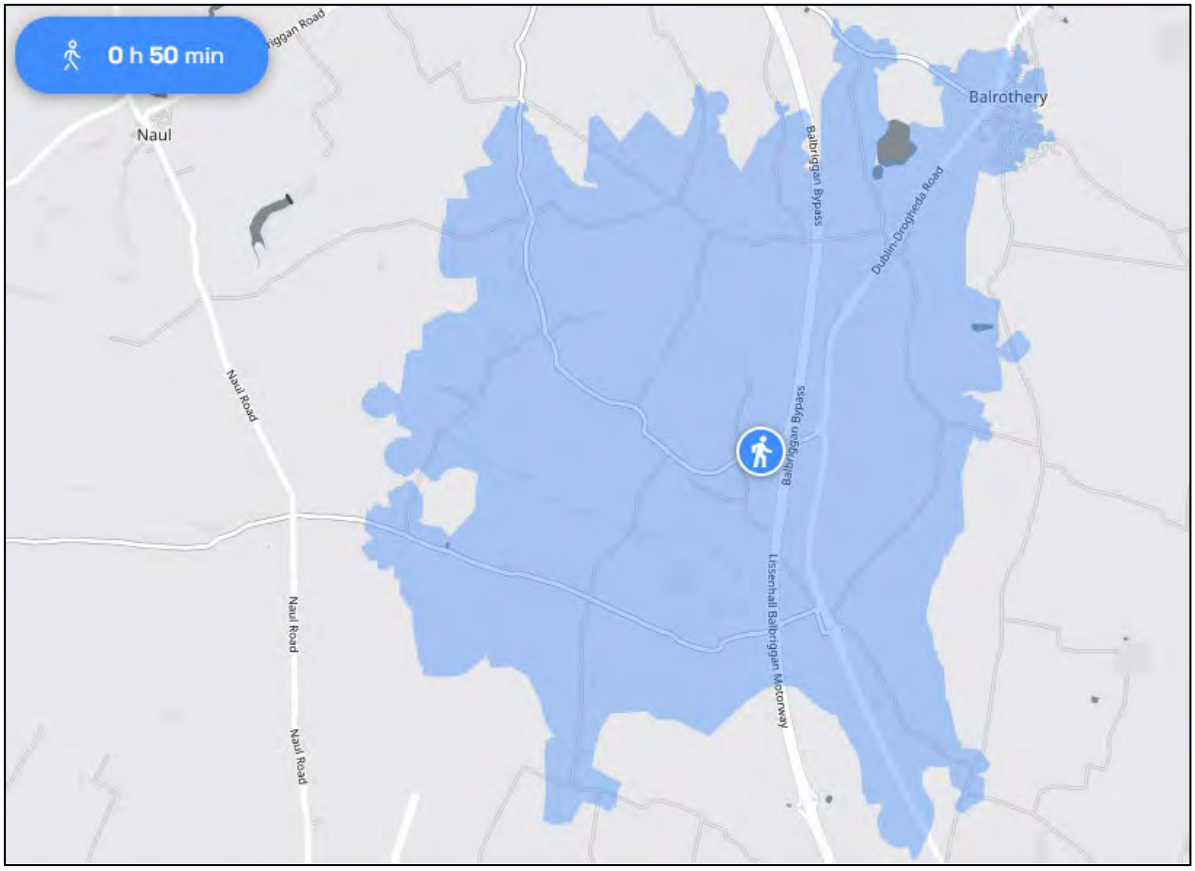


Figure 3.3 *50-minute Walking Catchment (Source: Travel Time Map).*

As can be seen from above, given the more rural location of the subject site, Balrothery is the only village or residential settlement that is reachable within the 50-minute walking catchment from the site.

During the **construction phase,** the proposed active travel facility as illustrated in Figure 3.2 above, will be under construction and therefore not opened to users. Construction workers living within the 50 minutes walking catchment (or even those living further away) will be welcomed to walk to and from the site every day and make use of the existing unconnected local pedestrian facilities to cross the M1 motorway and walk towards the site and will be advised of the existing conditions. However, due to connectivity and safety concerns no specific effort will be put in place during the construction phase to target a high proportion of workers to choose walking as their commuting option.

For the **operational phase**, however, the proposed active travel facility as illustrated in Figure 3.2 will be fully constructed and opened to the public. With the enhanced connectivity and safety for pedestrian movements between the Bhailsigh Road (L1140) roundabout and the Applegreen roundabout, a target will be put in place to encourage staff to walk to and from work every day, especially those residing within the 50 minutes catchment.

3.2 Cycling

3.2.1 Local Cycling Network

There are no existing cycle facilities in the local area.

Proposals for the Greater Dublin Area Cycle Network Plan were published by the National Transport Authority in 2022, which superseded the latest 2013 version. The Plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area. An extract of 'Cycle Network Plan – Balbriggan & Skerries' sheet is reproduced in Figure 3.4 below.

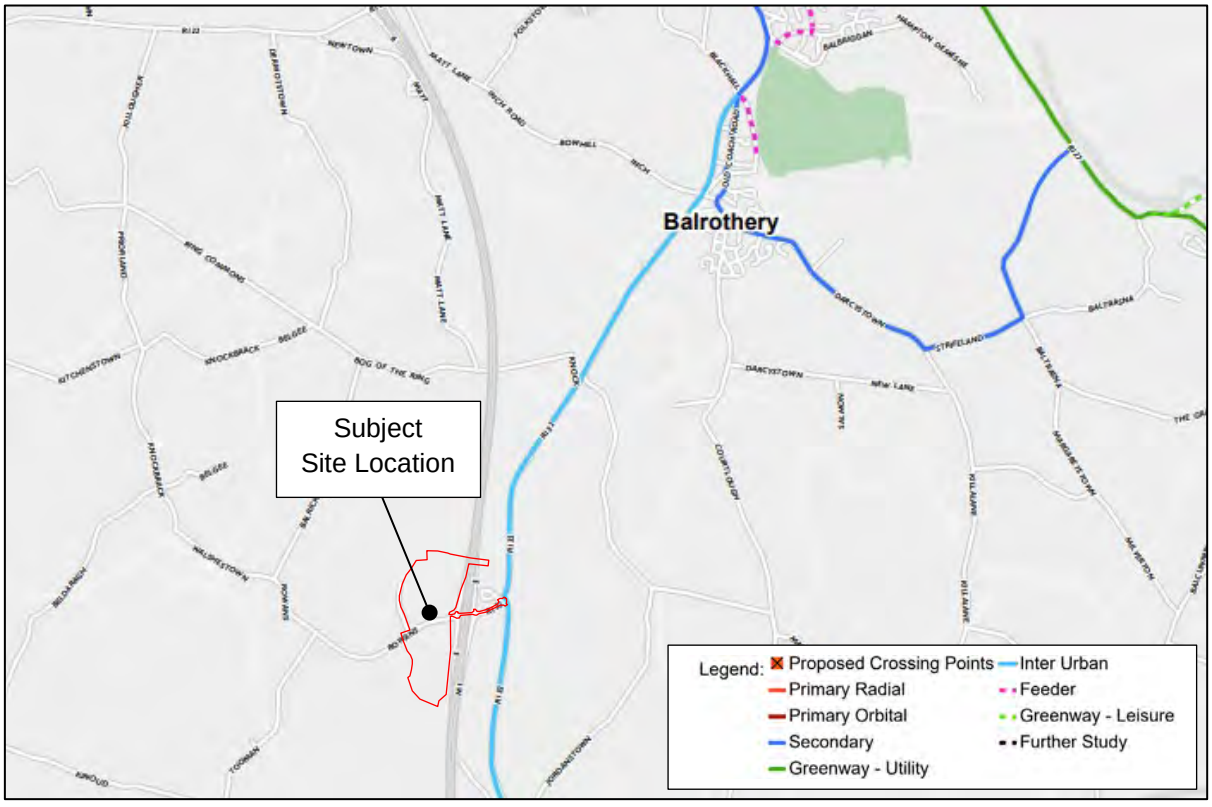


Figure 3.4 *GDA Cycle Network Plan – extract from Balbriggan & Skerries sheet.*

As can be seen from above, an Inter Urban Cycle Route along the R132 is proposed under the GDA Cycle Network Plan. This route will facilitate cyclist movements to/from Balbriggan to the north and to/from the several areas in and around Dublin to the south.

As illustrated in Figure 3.2, a shared active travel facility is proposed to enhance pedestrian/cyclist connectivity between the proposed development and the facilities along R132. The provision of this facility will provide cyclist with a safer and more comfortable linkage between the site and the R132, where the future Inter Urban Cycle Route is planned under the GDA Cycle Network Plan and will enhance local cyclists' movements.

3.2.2 Cycling Catchment

The NTA's "The Route to Sustainable Commuting" guidance document sets out acceptable cycling distances for cyclists without mobility impairment. It states that, in general, 10km is the maximum distance people would travel by bicycle for a commuting purpose.

The National Cycle Manual published by the National Transport Authority (NTA) in 2011 states that the average cyclist speeds are 15 to 20km/h. Data from the 2006 Census reveals that, for journeys within the Dublin Canal Ring, cyclists reached an average speed of 12km/h, whilst for trips within the M50, cyclists reached an average speed of 14km/h. At 14km/h average speed, cyclists would take approximately 43 minutes to reach the 10km general maximum distance. Figure 3.5 below illustrates the cycling distance covered within 45 minutes (or approximately 10 km) from the site.

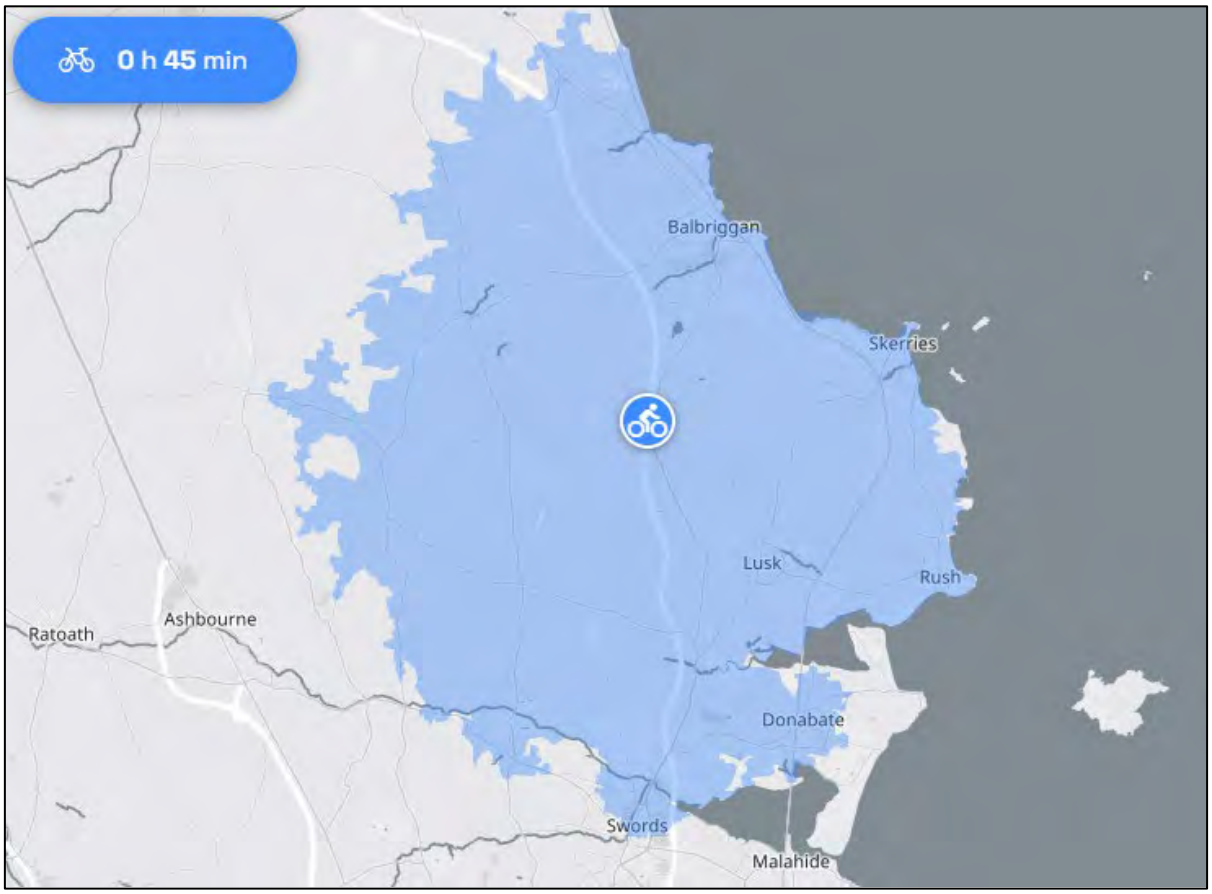


Figure 3.5 *45-minute Cycling Catchment.*

The 45-minutes cycling catchment encompasses a relatively large area that extends from Swords and Donabate in the south to Balbriggan in the north. Rush, Lusk and Skerries also fall within the 45-minutes cycling catchment.

As the shared active travel facility will be under construction during the **construction phase** of the site and therefore not yet opened for users, construction phase workers willing to cycle to work every day will be advised about the lack of existing cycle facilities, however, will be welcomed to do so.

For the **operational phase**, the proposed active travel facility will be fully constructed and opened to the public. Cycling to cross the M1 motorway will be safer and more comfortable and therefore a target will be put in place to encourage staff to cycle to and from work every day.

3.3 Public Transport

3.3.1 Local Bus Services

The closest bus stops serving the subject site located on R132 c. 850m northeast of the proposed site access – to the east of M1 motorway, being Grooms Bus Stops No. 1000231 (northbound) and No. 100761 (southbound). These bus stops are serviced by the following bus routes:

- **Bus Eireann Route 101**: Dublin (Busáras) – Dublin Airport – Drogheda Bus Station.
- **Balbriggan Express Route 191**: Mountain View, Stamullen – Balbriggan – Eden Quay Dublin.

The location of the subject bus stops and the walking route to/from the site access point are illustrated in Figure 3.6. A summary of the frequency of which each bus route operate is provided in Table 3.1.

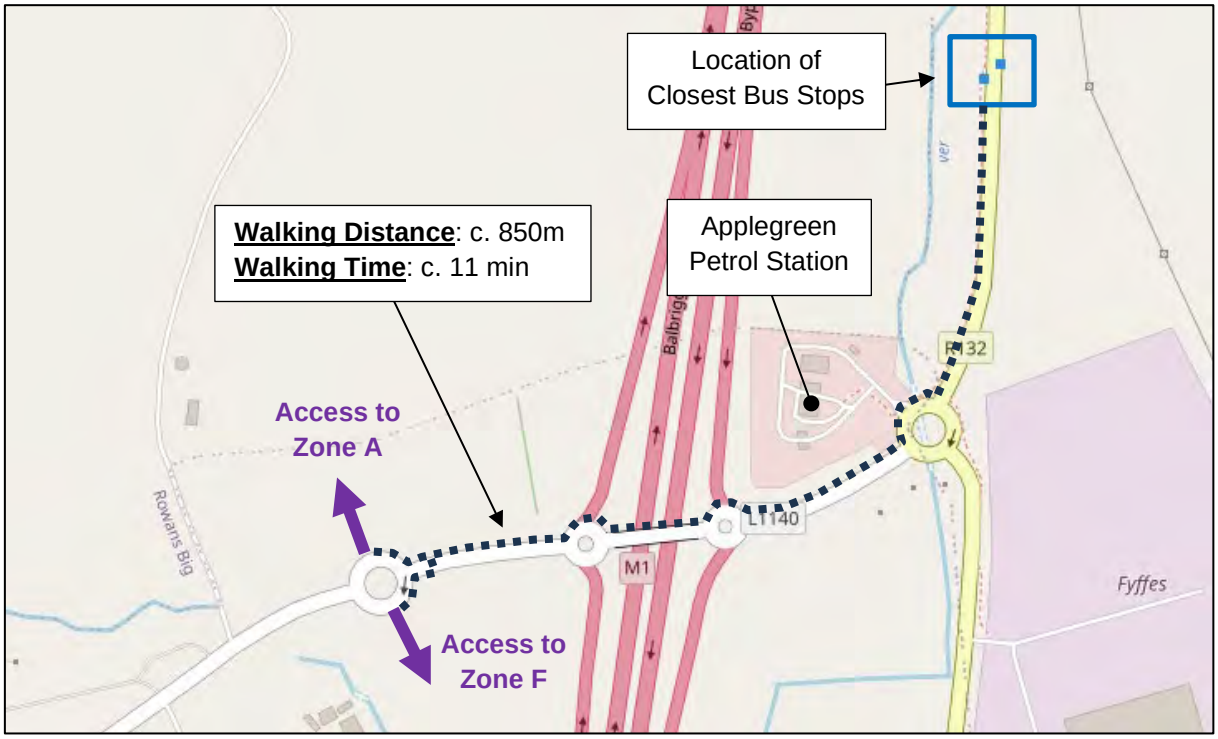


Figure 3.6 *Location of Closest Bus Stops and Walking Routes from the Site Access Points.*

Bus Route	Direction	Frequency at Grooms Bus Stops		
		Monday to Friday	Saturday	Sundays
Bus Eireann 101	Dublin to Drogheda	***24 hours service*** 21h to 06h: ~ Hourly 06h to 21h: 15 - 35 min	***24 hours service*** 21h to 06h: ~ Hourly 06h to 21h: 30 - 35 min	***24 hours service*** All day: ~ Hourly
	Drogheda to Dublin	***24 hours service*** 20h to 05h: ~ Hourly 05h to 20h: 15 - 35 min	***24 hours service*** 20h to 05h: ~ Hourly 05h to 20h: 25 - 35 min	***24 hours service*** All day: ~ Hourly
Balbriggan Express 191	Stamullen to Dublin	***3 services*** *(set down)* 07h08; 07h58; 09h07	-	-
	Dublin to Stamullen	***2 services*** 17h45; 18h30	-	-

Table 3.1 *Local Bus Routes – Existing Weekday and Weekend Frequencies.*

As seen from Figure 3.6, access from the proposed development to the closest bus stops on R132 is via L1140 (eastwards across the M1 motorway) and R132 (northwards up until the bus stops). Footpaths are provided on L1140 near the development's access roundabout, along the M1 overbridge and along R132 from Applegreen petrol station up until the bus stops. Refer to Figure 3.1.

As illustrated in Figure 3.2, the proposed shared active travel facility (pedestrian/cycle shared surface) will enhance the connectivity between the proposed development and the public bus stops on R132 and will provide bus users with a safer and more comfortable crossing link across the M1 motorway.

As the shared active travel facility will be under construction during the **construction phase** of the site and therefore not yet opened for users, construction phase workers willing to use the bus services to commute to and from the site every day will be advised about the unsafe and unconnected conditions of the pedestrian facilities to cross the M1 motorway.

For the **operational phase**, the proposed active travel facility will be fully constructed and opened to the public. Bus services will be a viable commuting option for staff, and they will be encouraged to avail of the bus services.

4 Proposed Development

4.1 Development Description

The proposed development consists of:

- Demolition of a single-storey 200-square-metre (m²) house, an abandoned water storage reservoir and associated pump stations, all located on the western boundary of Zone A;
- Demolition of 13 No. existing buildings consisting of agricultural sheds, stables, warehouses and residential dwellings located in Zone F;
- Provision of civil infrastructure to service future-planned commercial properties on the lands located on the western side of the M1 Business Park and M1 motorway, referred to as Zone A and F.
- Zone A and F lands are located north and south of Bhailsigh Road (L1140), respectively, which connect to Junction 5 of the M1 Motorway and are located in the townlands of Rowan's Big and Rowan's Little.
- Preparation of indicative Masterplan for Zone A and F which contains layouts of the future planned commercial properties, consisting of mixed-use, warehousing and distribution units including associated loading bays for HGVs, service compounds, ESBN substations and parking areas to service each commercial unit site, which would be subject to individual planning permission applications.
- Provision of civil infrastructure designed to service various mixed-use buildings consisting of 20k- to 105k-square-feet (ft²) units with the potential to combine plots should larger units be required.
- In Zone A and F, the civil infrastructure will consist of primary access roads including pedestrian/cycle paths, watermains, surface water and foul drainage networks. utility ducting for services consisting of power and telecommunications.
- The primary access roads into Zone A and F will consist of 7.5-metre-wide single-carriageways originating from Bhailsigh Road (L1140) roundabout including segregated cycle tracks and pedestrian footpaths with associated verges.
- Upgrading of the existing Balrickard stream crossing located in Zone F in accordance with the Office of Public Works Section 50 of the Arterial Drainage Act (1945), guidelines.
- Individual access spurs will be provided from the primary access road to each of the future-planned commercial land parcels.
- Provision of pipelines and associated infrastructure for watermains to service future-planned commercial properties and
- Provision of surface water drainage infrastructure for the access road and associated infrastructure consisting of Sustainable Urban Drainage Systems features such as attenuation ponds, raingardens, bioretention ponds, Nature-based Solutions (NBS) and conveyance networks.

A plan layout drawing of the proposed development is shown on CSEA Drawing 16_206A-CSE-GEN-XX-DR-C-1610 accompanying the documentation package which is reproduced in Figure 4.1.

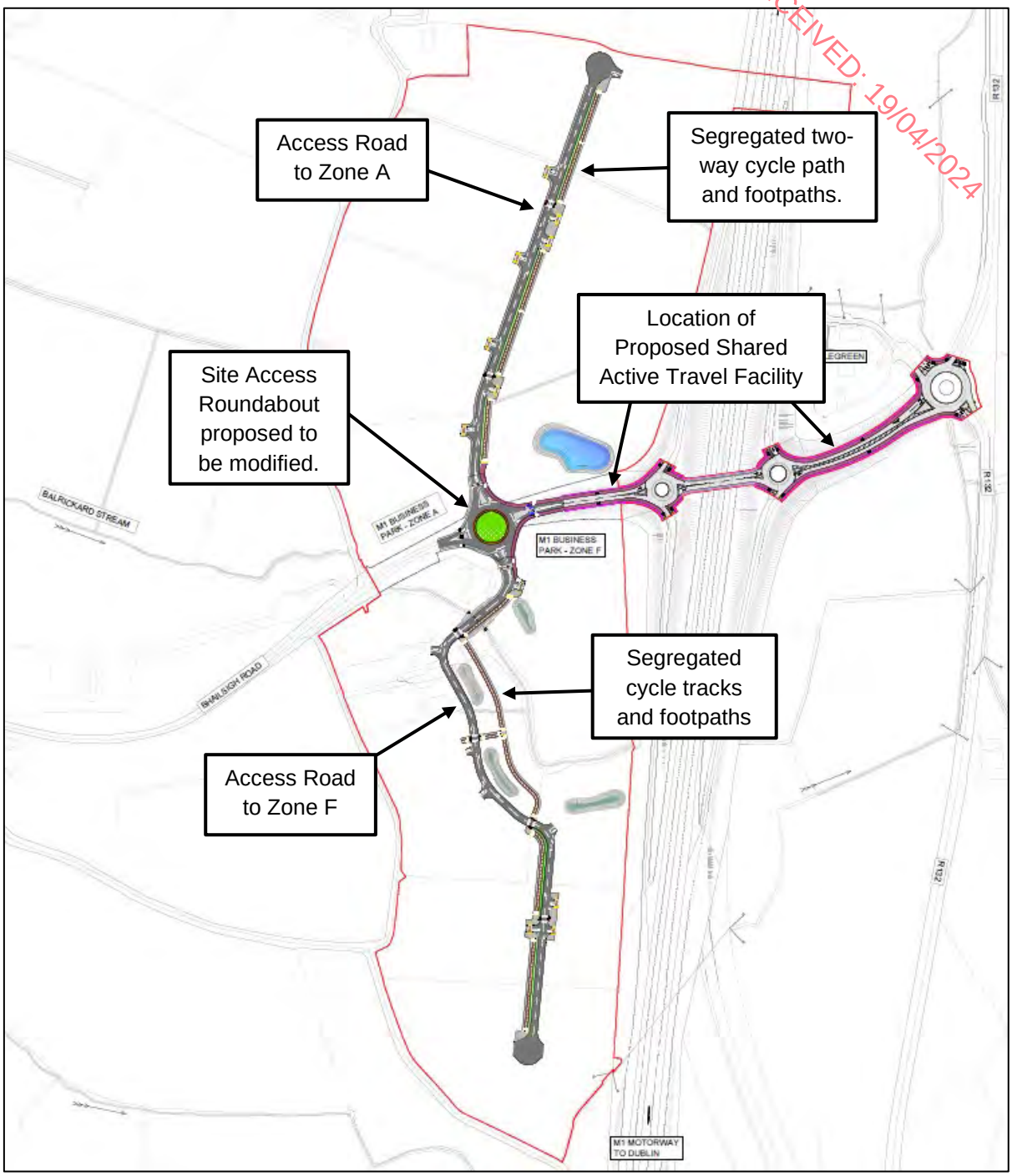


Figure 4.1 *Proposed Development Plan Layout.*

4.2 Access Arrangements

4.2.1 Vehicular Access

The proposed vehicular access to the site is planned through the Bhailsigh Road (L1140) roundabout which is proposed to be upgraded/modified in accordance with the Transport Infrastructure Ireland (TII) roundabout design standards. Access to Zone A is intended through the extension of the northern approach of the roundabout, while access to Zone F is proposed through the extension of the southern approach. The proposed modified layout of the roundabout is illustrated in Figure 4.2.

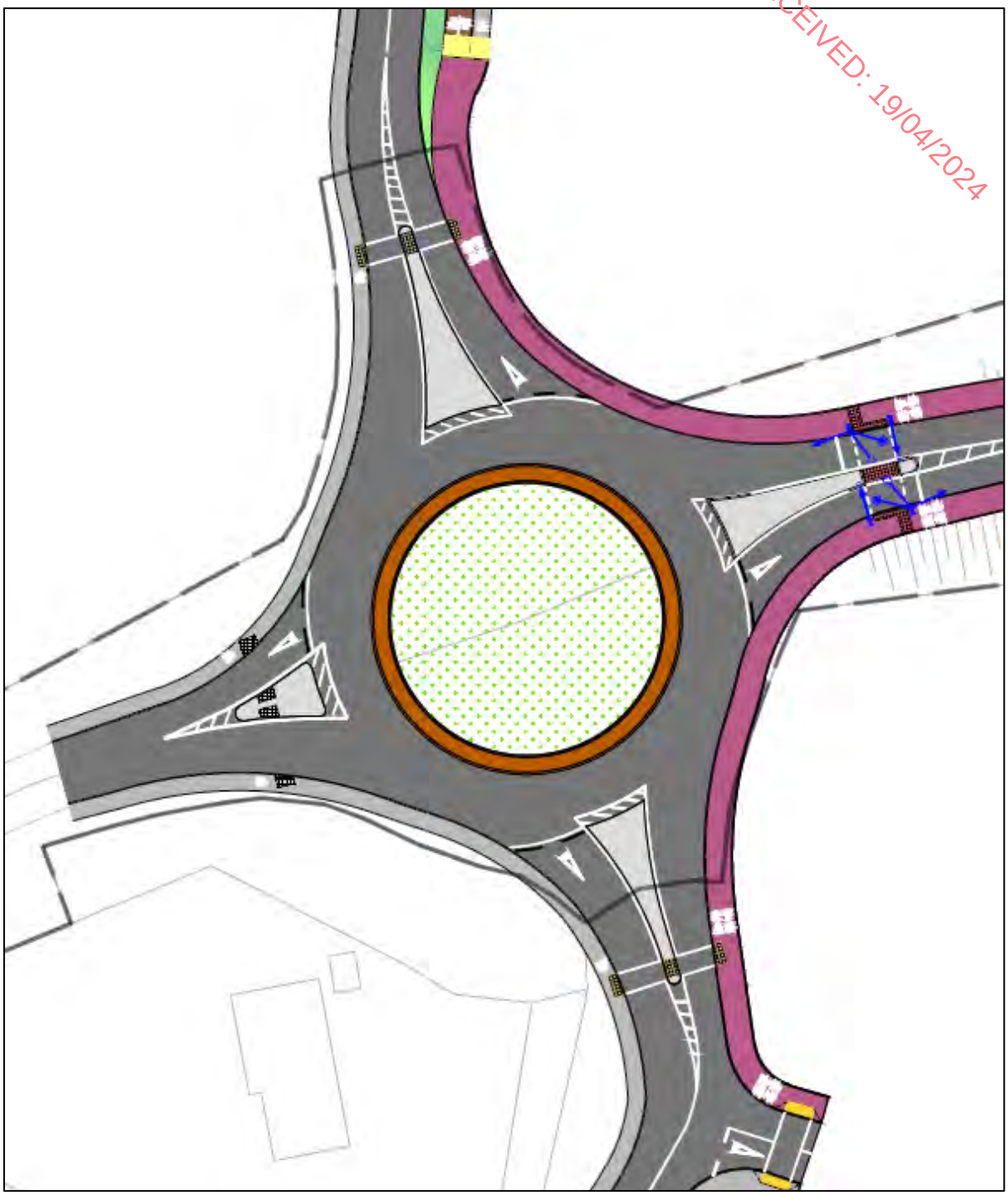


Figure 4.2 *Bhailsigh Road (L1140) Access Roundabout – Proposed Modified Layout.*

The proposed roundabout modifications include:

- Maintenance of the 50m Inscribed Circular Diameter (ICD).
- Enlargement of main central island by introducing a 2.0m-wide central overrun area capable of being mounted by trailers and HGVs.
- Reduction of circulating lanes width from 9.5m to 7.5m.
- Introduction of a signalised toucan crossing on the eastern approach.

- Introduction of uncontrolled crossings on the northern and southern approaches.
- Maintenance of existing pedestrian crossings on the western approach.

4.2.2 Access Roads

The various cross sections for the proposed Zone A and Zone F access roads are illustrated in Figure 4.3 and Figure 4.4, respectively.

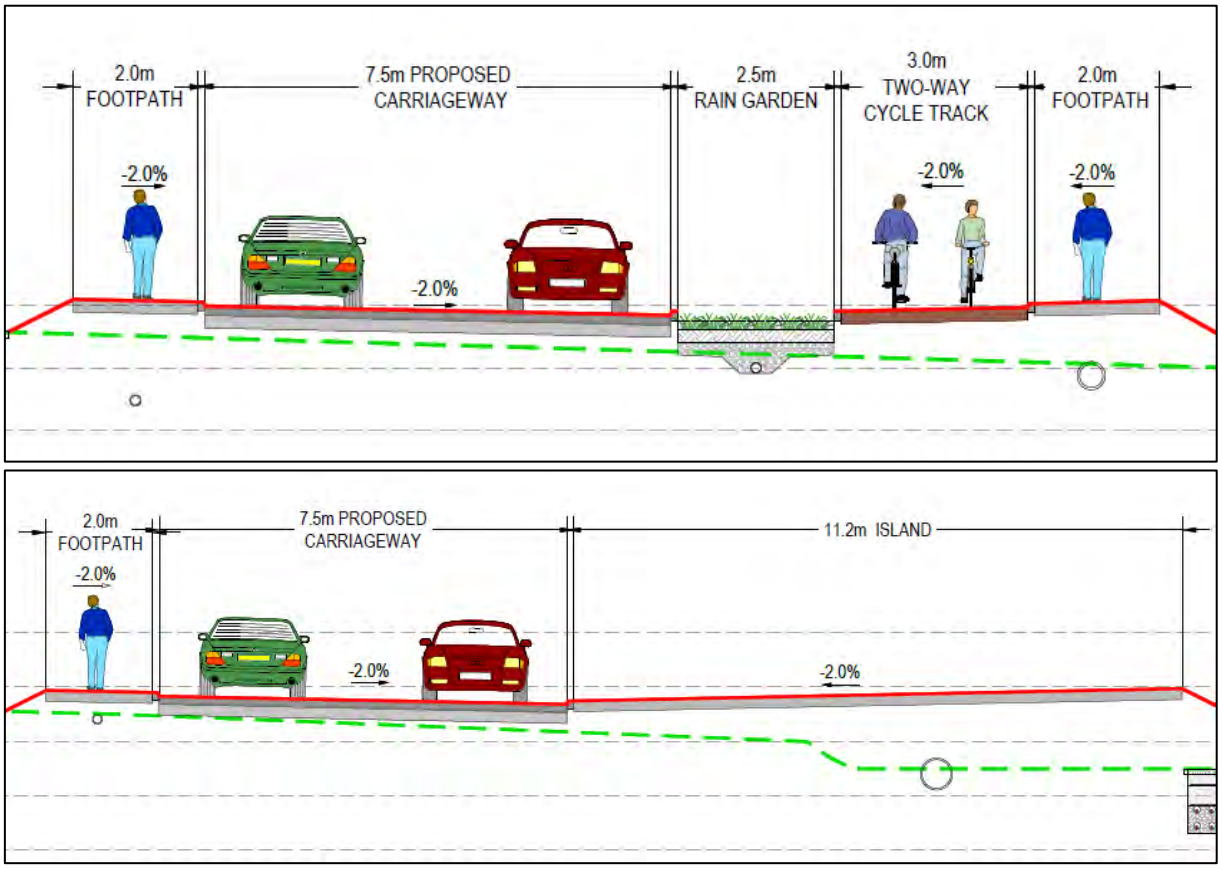
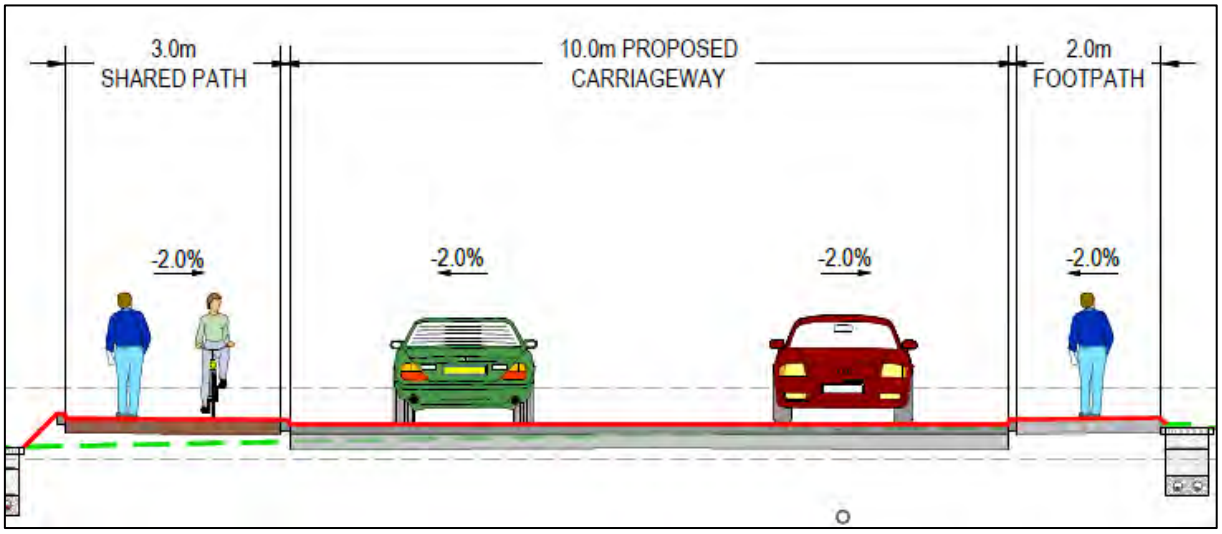


Figure 4.3 *Zone A – Cross Sections of Proposed Access Road.*



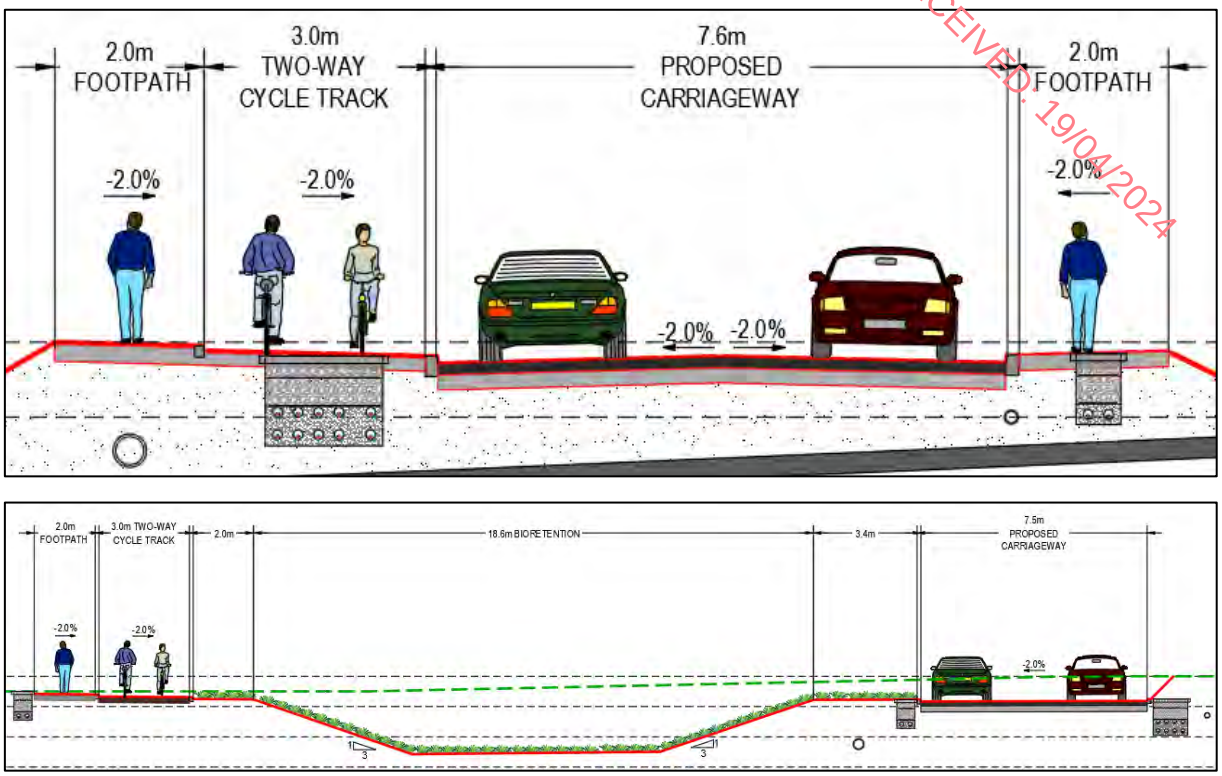


Figure 4.4 *Zone F – Cross Sections of Proposed Access Road.*

4.2.3 Proposed Active Travel Facility along L1140

Pedestrian and cyclist access to both Zone A and Zone F will also be facilitated by the modified Bhailsigh Road (L1140) roundabout.

To improve active travel connectivity between the site access and the public transport facilities along the R132 – such as the existing bus stops and the inter-urban cycle route, it is proposed to construct 3.0m-wide shared paths along both sides of the Bhailsigh Road (L1140). This facility is set to commence at the Bhailsigh Road (L1140) site access roundabout, extend along the M1 overbridge, and connect to the existing pedestrian infrastructure at the Applegreen Roundabout. Refer to Figure 4.5.

The introduction of this shared active travel facility aims to enhance the attractiveness of the available public bus service, while offering cyclist and vulnerable users a safer and more comfortable link between the site and the R132.

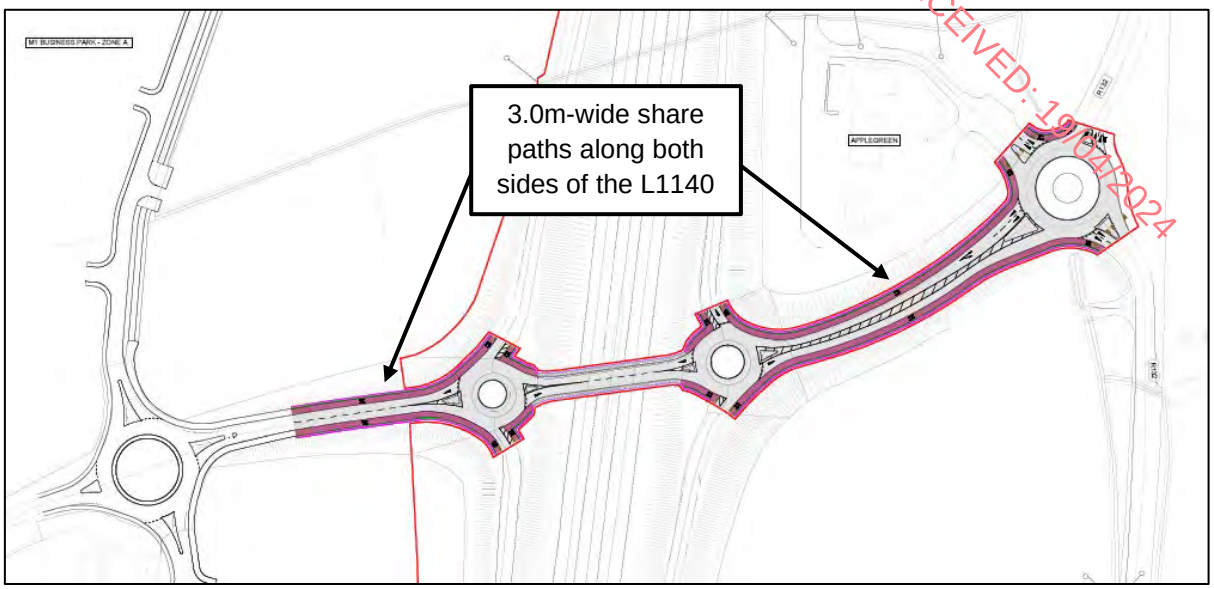


Figure 4.5 *Proposed Shared Active Travel Facility.*

4.3 Internal Active Travel Infrastructure

The proposed internal infrastructure includes the provision of two-way cycle tracks measuring 3.0m in width and footpaths measuring 2.0m in width within each Zone. These facilities will lead towards the proposed modified Bhailsigh Road (L1140) roundabout and will tie into the 3.0m wide shared active travel facility proposed along L1140 from the site access roundabout to the Applegreen Roundabout.

Various strategically located crossing facilities are planned within the site (and also outside) to ensure the safe and convenient movement of all users, enhancing permeability. These facilities consist of features such as dropped kerbs with tactile pavement and raised tables with tactile pavement, aiming to provide comfort and independence for all users. Additionally, the raised tables will also serve as a traffic calming measure to reduce vehicle speeds within the site.

5 Modal Split

5.1 Census 2016 – Workplace Zone

In order to obtain the modal split information for the Small Area where the subject site is situated, it was required to investigate 1 Workplace Zone (as defined by the Central Statistics Office (CSO)).

According to CSO "*Workplace Zones are based on 2016 Small Areas, which were merged or split to create areas with 100-400 workers and at least 3 workplace locations*". The reason for the creation of the Workplace Zones were based on the following:

- "*Small Areas are based on where people reside and not where they work.*
- *Some Small Areas contain no/few businesses; some contain many.*
- *Potential uses in emergency planning, transport optimum location for new businesses etc.*
- *Growing demands for data on workers and daytime statistics nationally and internationally*."

The general rules for the creation of the Workplace Zones are:

- "Wh*ere possible all zones to have a range of between 100 to 400 workers.*
- *Each Workplace Zone contains a minimum of three workplaces.*
- *Workplace zones nest within county boundaries.*
- *No more than 90% of employees in any Workplace Zone can work in one organisation*."

Based on the above rules, the Small Area where the subject site is located (Ref. 267104003) was merged with an adjacent Small Area (Ref. 267094001/267094002/267094005) to create a Workplace Zone (Ref. FL0190) – see below.

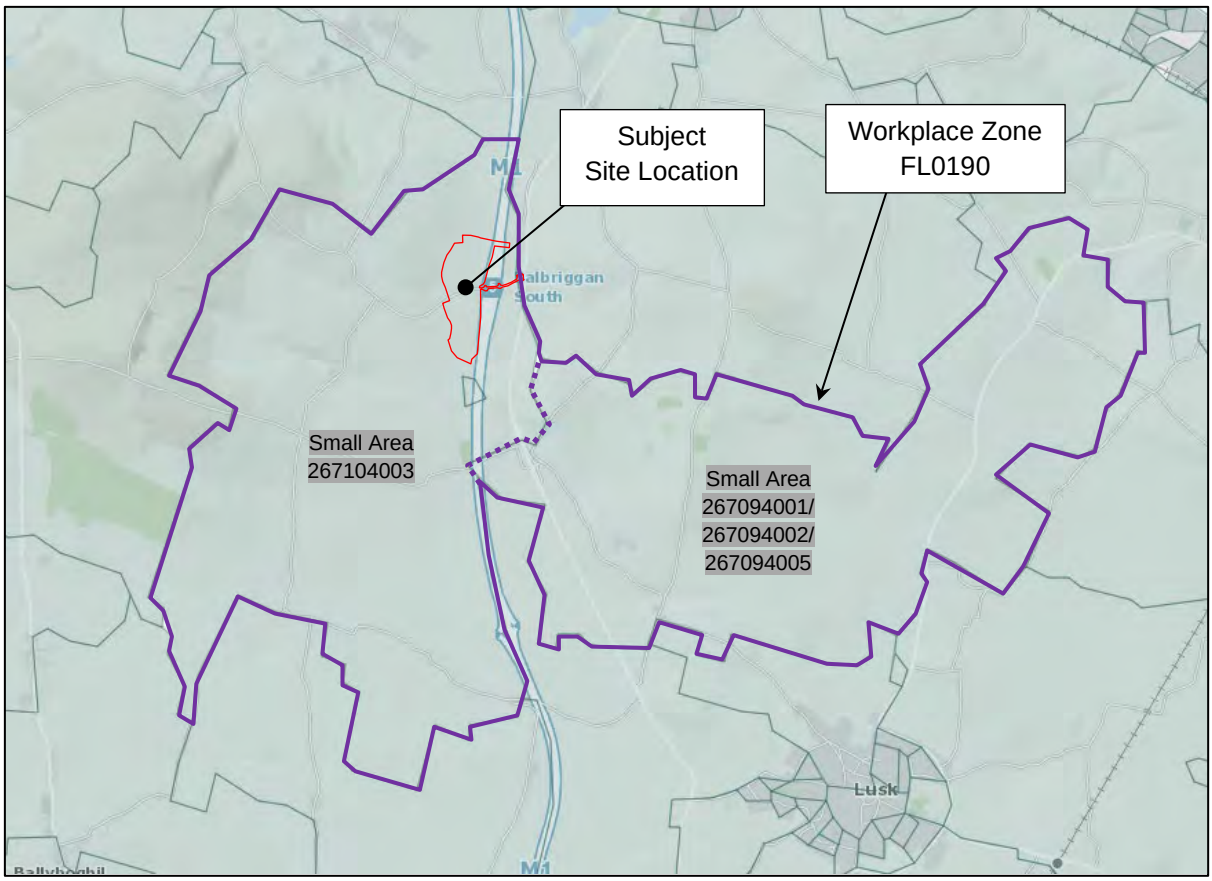


Figure 5.1 *Location Map of Proposed Development with Workplace Zone FL0190.*

The modal split results for the Workplace Zone – based on how employees commute to/from their places of work at this zone, are summarised below.

Mode	General Modal Split	Modal Split (excluding Others and Not Stated)
On foot	4%	5%
Bicycle	2%	2%
Bus, minibus or coach	1%	1%
Train, DART or LUAS	0%	0%
Motorcycle or scooter	0%	0%
Car driver	55%	59%
Car passenger	25%	27%
Van	5%	6%
Other or working from home	4%	-
Not stated or not at work	4%	-
Total	100%	100%

Table 5.1 *Modal Split Results – CSO Workplace Zone FL0190.*

From the results summarised above it can be noted that a large percentage of employees working at the subject Workplace Zone opted to drive to work every day, with only a small proportion choosing sustainable or collective ways of transportation to do so, such as walk, cycle, bus and van.

One of the relevant strategic objectives of the Fingal Development Plan 2023 – 2029 (FDP) is to "*reduce car dependency and promote and facilitate sustainable modes of transport. Prioritise walking, cycling and public transport, while supporting an efficient and effective transport system.*"

It is expected that the interventions proposed as part of the subject application, such as the construction of shared active travel facilities and the provision of strategic-located pedestrian crossing facilities and traffic calming measures, will increase safe and comfort for pedestrians and cyclists while enhancing the connection between the nearest bus stops and the site. These facilities will potentially increase the attractiveness of the use of public bus services, walking and cycling to commute to and from the site and will help reduce the number of workers choosing to commute in a private car.

5.2 Modal Split Targets

With the goal to reduce the number of staff driving alone to work and to encourage a more sustainable travel pattern for commuting to and from the site, ambitious and deliverable modal splits targets have been established for both the construction and the operational phases.

Mode	Target Modal Split (Construction)	Target Modal Split (Operation)
On foot	5%	6%
Bicycle	3%	4%
Bus, minibus or coach	2%	4%
Train, DART or LUAS	0%	0%
Motorcycle or scooter	0%	0%
Car driver	56%	52%
Car passenger	28%	28%
Van	6%	6%
Total	100%	100%

Table 5.2 *Target Modal Splits – Construction and Operational Phases.*

The initial goal for the construction phase is to decrease the car driving mode share from 59% - identified for the overall Workplace Zoned where the subject site is located, to 56%. For the operational phase, the target is a further reduction to 52%. These decreases in car driving mode share are set in contrast to the slight increased mode share for sustainable travel option like bike, bus and carpooling. Achieving higher mode shares for these alternatives will depend largely on factors such as staff's residential location in proximity to the workplace, increased public transport services and improvements to local transportation facilities. However, there will be efforts to raise awareness about the advantages of active travel options and carpooling for all staff.

The shared active travel facility proposed under the subject application will play a significant role in achieving the target mode shares for sustainable transport.

6 Action Plan

6.1 Measures to Encourage Sustainable Transport

6.1.1 Walking

It is well understood that there are many local, global and personal benefits to walking to/from work every day.

The proposed site is located along the M1 Motorway – near Junction 5, in the Townlands of Rowans Big and Rowans Little. Given the more rural location of the subject site, Balrothery is the only village or residential settlement that is reached within the preferable 50-minute walking catchment from the site.

During the construction phase, the proposed active travel facility as illustrated in Figure 3.2 will be under construction along Bhailsigh Road (L1140) and therefore not opened to users.

Construction workers living within the 50 minutes walking catchment (or even those living further away) will be welcomed to walk to and from the site every day and make use of the existing unconnected local pedestrian facilities to cross the M1 motorway and walk towards the site and will be advised of the existing conditions. However, due to connectivity and safety concerns, no specific effort will be put in place during the construction phase to target a high proportion of workers to choose walking as their commuting option.

For the operational phase, however, the proposed active travel facilities will be fully constructed and open to the public. With the enhanced connectivity and safety for pedestrian movements between the Bhailsigh Road (L1140) roundabout and the Applegreen roundabout, a target will be put in place to encourage staff to walk to and from work every day, especially those residing within the 50 minutes catchment.

Additionally, to develop a sense of connection and camaraderie among the staff during both the construction and operational phases, those living in close proximity and willing to walk to and from the site will be encouraged to meet and walk together. Moreover, when feasible, employees will be encouraged to adopt a shared commuting approach, consisting of walking to secure a carpool ride with a colleague for the remaining part of the journey to work.

6.1.2 Cycling

Cycling is an efficient way to travel short and medium distances. It contributes to improved health and wellbeing as well as promotes independence and reduces negative impacts to the environment.

This mode of transportation would be a viable option for staff living in towns that fall within the preferred 45-minute cycling catchment such as Swords, Donabate, Balbriggan, Rush, Lusk and Skerries – as outlined earlier in Section 3.2.2, however, its feasibility extends to those also living further away, all dependent upon their fitness, ability and confidence on a bike.

As the shared active travel facility proposed as part of the subject application will be under construction during the **construction phase** of the site, and therefore not opened for users, construction phase workers willing to cycle to and from work every day will be advised about the lack of existing local cycle facilities, however, will be welcomed to do so. A designated area for bike parking will be provided throughout the construction phase at a convenient location, so staff cycling to work will have a secure space to park their bikes. Additional spaces will be made available should demand increase.

During the operational phase, the provision of cycle facilities along the internal spine roads and the new shared path along the L1140 will provide cyclist with a safer and more comfortable linkage between the site and the R132 and will potentially encourage staff to cycle to work. The future on-site cycle parking

facilities that will be made available to cater for the future-planned commercial buildings and the government's Cycle to Work Scheme are likely to further assist in encouraging staff to cycle to work.

During both the construction and the operational phase, staff will be encouraged to incentivise each other and cycle together, especially when safer and more comfortable routes to and from the site are identified.

6.1.3 Public Transport

There are many benefits to taking public transport every day to commute to and from work. These benefits include reduction in carbon emissions, reduction in congestion, allowing users to relax, amongst others. In this regard, some initiatives will be used to encourage staff to take public transport to work, such as:

- Providing information about tax incentives for public transport users such as TaxSaver Commuter Ticket Scheme.
- Promoting real-time information services for public transport such as apps for smart phones and national Journey Planner website.
- Providing guidance for staff on local bus routes and nearest bus stops.
- Providing advice to staff regarding bus travel times to and from key destinations.

The proposed shared active travel facility will enhance the connectivity between the proposed development and the public bus stops on R132 and will provide bus users with a safer and more comfortable crossing link across the M1 motorway.

As the shared active travel facility will be under construction during the **construction phase** of the site and therefore not yet opened for users, construction phase workers willing to use the bus services to commute to and from the site every day will be advised about the unconnected conditions of the pedestrian facilities available to cross the M1 motorway.

For the **operational phase**, the proposed active travel facility will be fully constructed and opened to the public. Bus services will be a viable commuting option for staff, and they will be encouraged to avail on the bus services.

6.1.4 Carpooling

There are many benefits of carpooling to and from work every day, such as reducing carbon emissions, reducing fuel costs, reducing congestions and journey times due to fewer cars being on the road and increasing the pleasure of the journey due to less congestion and to having company. Some initiatives will be used throughout both the construction and the operational phases to encourage staff to carpool to work, such as:

- Providing information about the benefits of carpooling.
- Designating parking spaces to carpooling vehicles at more convenient locations within the site.
- Promoting carpooling on business visits e.g. visits to suppliers and visits to clients.

Additionally, when feasible, employees will be encouraged to adopt a shared commuting approach, consisting of walking, cycling or taking public transport for part of the route to secure a carpool ride with a colleague for the remaining part of the journey to work.

6.1.5 Car Driving

Even though staff during both construction and operational phases will not be encouraged to drive every day to and from work, especially alone, it is expected that a high proportion of staff will still avail

themselves on the use of private cars. For this reason, to avoid any negative impact that may be caused by drivers during both the construction and operational phases, staggered shift arrangements will be encouraged to minimise traffic in the network and deliveries or shipments will be discouraged during shift changeovers or during network peak hours, except in specific cases.

6.1.6 Construction Traffic Management Plan

A Construction Traffic Management Plan will be prepared by the main contractor prior to the construction phase. This document, which shall be prepared in coordination and agreement with the Local Authority, will outline, but not limited to, site logistics and indicate the following:

- Vehicle entry and exit routes to/from the site.
- Diversion of pedestrian and cycling routes.
- Location of loading and unloading areas.
- Location of material storage areas.
- Banksmen locations.

6.1.7 Mobility Management Plan for the Future-planned Commercial Buildings

It is important to note that the operational arrangements of the future-planned commercial buildings to take place within the subject site are currently unknown. All planning applications for the future-planned commercial developments within the subject site shall contain a Mobility Management Plan detailing the actions and strategies on how to achieve the mode share targets proposed and how to monitor and implement the measures to promote sustainable transport. The measures outlined in the subject report should be taken into consideration.

6.2 Transport Coordinator and Sustainable Transport Task Force

A sustainable transport task force shall be created for both the construction of the proposed civil infrastructure and the operational phases of each future-planned commercial development.

The role of the sustainable transport task forces will be to promote, engage, communicate, and implement solutions that enable the achievement of the pre-defined goals.

Initially, a senior staff member who supports the philosophy of the Plan will be appointed as the Transport Coordinator until the task force is fully established and, from there, it will be led by employees supported by the Transport Coordinator.

The Transport Coordinator and the task force role will be to ensure that the mobility management plan is executed. The development, implementation and management of the Plan during both the construction and the operational phases shall include, but not limited to:

- The promotion of the Plan to all staff, including new employees.
- The implementation and maintenance of the Plan.
- Monitoring the progress of the Plan.
- Ongoing assessment of the objectives and targets of the Plan.
- Ongoing updates on changes to local active and collective transport infrastructure.

After the occupation of the future-planned buildings a Park Management company will be appointed. This company will instigate the Mobility Management Plans among all firms and will liaise with the Transport Coordinators to assist in the achievement of the MMP goals and targets.

6.3 Monitoring of the Mobility Management Plan

Questionnaire

To develop a thorough understanding of the initial travel patterns of both the construction and operational phases, the best approach is generally to distribute a questionnaire to all staff, from which a database of travel patterns can be compiled.

The Transport Coordinator and the sustainable transport task force formed during both phases shall arrange for this questionnaire to be responded. It is recommended that the questionnaires are responded within the first month of the operation of the construction site (construction phase) and within six months of the operation of the commercial building (operational phase). The information requested in the questionnaire should include:

- Staff's personal details including place of residence.
- Staff's start and finish working times.
- Staff's modes of transport to commute to and from work including any primary and secondary modes used.
- Travel patterns including the time taken for the staff to commute to and from work.
- Staff's views on alternative modes to the car (i.e. what would encourage them to switch to other modes).
- Availability for carpooling.

The information obtained from the questionnaire should be entered onto a database and used to formulate and monitor the implementation of the Plan and to set and review targets. The monitoring and review of the Plan will be the responsibility of the Transport Coordinator and the Sustainable Transport Task Force. The questionnaire will establish the initial mode share of travel by staff from which targets will be agreed.

Construction Phase

For the construction phase of the proposed civil infrastructure (which is envisaged to take approximately 8 months) the team will meet within a period of 3 months after compiling the questionnaire information to set and review targets, and every 3 months thereafter to monitor the progress of the Plan and agree objectives for the next 3 months. Staff will also be resurveyed after 3 months.

Operational Phase

For the operational phases of the future-planned commercial buildings, the team shall meet within a period of 6 months after compiling the questionnaire information to set and review targets, and every 18 months thereafter to monitor the progress of the Plan and agree objectives for the next 18 months. Staff will also be resurveyed approximately every 18 months.

Each planning application for the future-planned commercial buildings shall contain a Mobility Management Plan detailing how to monitor and implement the measures and how often to meet and set and review targets. The above is a recommendation.

Indicators

As part of the monitoring process the Transport Coordinator and Sustainable Transport Task Force during both the construction and the operational phase will be responsible to monitor and measure a number of indicators, including (where applicable):

- Changes in modal split.
- Bikes parked on site and utilisation of the bike parking provided.
- Number of staff using the Cycle to Work Scheme.
- Cars parked on site and utilisation of the car parking provided.
- Number of staff using public transport and availing on TaxSaver Commuter Ticket Scheme.
- Number of staff carpooling.
- Number of staff working remotely not generating commuting trips.
- Facilities upgrades.
- Employee satisfaction with the Plan.

Monitoring the Plan is essential for a number of reasons, including:

- Review the success of particular initiatives and whether or not they are meeting the established objectives and targets.
- Increase or reduce resource allocations as required.
- Forecast future activity.
- Report on success.

This Mobility Management Plan is a live document to be reviewed and updated periodically depending on the needs and the travel patterns.

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Appendix 13: Waste Management

Clifton Scannell Emerson Associates

Outline Resource and Waste Management Plan

M1 Business Park – Zones A & F

Client: Vida M1 Limited

Date: March 2024

Job Number: 16_206A

CONSULTING ENGINEERS

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Document Control Sheet

Project Name:	M1 Business Park – Zones A & F
Project Number:	16_206A
Report Title:	Outline Resource and Waste Management Plan
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0	Planning Issue	28/03/2024	HB	LP

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1 Introduction

Vida M1 Limited ('the Client') has commissioned Clifton Scannell Emerson Associates (CSEA) to prepare an Outline Resource and Waste Management Plan (RWMP) for the proposed M1 Business Park Zone A and F development, located near Balbriggan in the townlands of Rowans Big and Rowans Little.

The purpose of this plan is to provide a framework for the management of Construction & Demolition (C&D) wastes to ensure maximum recycling, reuse and recovery of waste is maintained throughout the works whilst reducing the volumes of wastes ending up in landfills. It also seeks to provide guidance on the appropriate collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution (e.g. contamination of soil and/or water).

Successful waste management strategies and policies play an essential role in protecting public health, maintaining a high-quality environment and supporting sustainable development. In managing waste needs, we need to minimise waste going to landfill and maximise waste as a valuable resource, as we make the transition from a linear to a circular economy.

This plan provides the necessary information to ensure that the management of C&D wastes at the proposed development is carried out in accordance with current legal and industry standards:

- The Waste Management Act 1996 as amended and associated Regulations [1];
- Environmental Protection Agency Act 1996 as amended and associated Regulations [2];
- Litter Pollution Act 1997 as amended [3]; and
- The Waste Management Plan for the Eastern-Midlands Region 2015 – 2021 [4].

This RWMP includes information on the legal and policy framework for C&D waste management in Ireland, estimates of the type and quantity of waste to be generated by the proposed development and makes recommendations for management of different waste streams.

The RWMP shall be viewed as a "live" document and will be regularly revised throughout a project's lifecycle. The continuous revision of the RWMP will ensure waste reduction / efficiencies are exploited throughout the project cycle, data is collected on an ongoing basis so that it is as accurate as possible.

This RWMP has been compiled in accordance with the following guidance documents:

- Environmental Protection Agency (EPA) Best Practice Guidelines on the Preparation of Waste Management Plans for construction and Demolition Projects (2021);
- TII Guidelines for the Management of Waste from National Road Construction Projects. Transport Infrastructure (2017).

1.1 Commitment to adherence to the RWMP

This outline RWMP has been prepared to act as a waste management framework for the construction phase of the proposed development, taking into account the many guidance documents on the management and minimisation of construction and demolition waste, including:

- Environmental Protection Agency (EPA) (2021) Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects;
- Provisions of the Waste Management Acts, 1996-2011 and associated Regulations;

[1] Waste Management Act 1996 (No. 10 of 1996) as amended
[2] Environmental Protection Agency Act 1992 as amended
[3] Litter Pollution Act 1997 (S.I. No. 12 of 1997) as amended
[4] Waste Management Plan for the Eastern-Midlands Region 2015 - 2021

- Construction Industry Research and Information Association (CIRIA) document 133 Waste Minimisation in Construction;
- TII (2017) Guidelines for the Management of Waste from National Road Construction Projects.
- National Construction & Demolition Waste Council (NCDWC) 2006 Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects;
- Eastern-Midlands Region (EMR) Waste Management Plan 2015-2021;
- Fingal Development Plan 2023-2029, Chapters 11 Infrastructure and Utilities and Chapter 14 Development Management Standards;

The contractor shall refer to and adhere to the above documents in preparation of the final RWMP and carrying out all site activities in relation to waste management.

1.2 Relevant Documents

The following documents are available to the Contractor, which shall be reviewed as part of the process to compile the detailed RWMP:

- Outline Construction Environmental Management Plan (CEMP) Report No. RPT-16_206A-013;
- Preliminary Construction Health and Safety Plan (to be compiled during Tender/Procurement Stage);
- Temporary Traffic Management Plan (to be compiled during Tender/Procurement Stage);
- Chapter 13 of Environmental Impact Assessment Report: Material Assets Resources and Waste Management;

1.3 EU, National and Regional Waste Policies and Legislation

The Irish Government issued a policy statement in September 1998, Changing Our Ways[5], which identified objectives for the prevention, minimisation, reuse, recycling, recovery and disposal of waste in Ireland. The target for C&D waste in this report was to recycle at least 50% of C&D waste within a five-year period (by 2003), with a progressive increase to at least 85% over fifteen years (i.e. 2013).

In response to the Changing Our Ways report, a task force (Task Force B4) representing the waste sector of the already established Forum for the Construction Industry, released a report entitled 'Recycling of Construction and Demolition Waste' [6] concerning the development and implementation of a voluntary construction industry programme to meet the Government's objectives for the recovery of C&D waste.

In September 2020, the Irish Government published a policy document outlining a new action plan for Ireland to cover the period of 2020-2025. This plan, 'A Waste Action Plan for a Circular Economy' [7] (WAPCE), replaces the previous national waste management plan, "A Resource Opportunity" (2012), and was prepared in response to the 'European Green Deal' which sets a roadmap for a transition to an altered economical model, where climate and environmental challenges are turned into opportunities.

The WAPCE sets the direction for waste planning and management in Ireland up to 2025. This reorientates policy from a focus on managing waste to a much greater focus on creating circular patterns of production and consumption. Other policy statements of a number of public bodies already acknowledge the circular economy as a national policy priority.

[5] Department of Environment and Local Government (DoELG) Waste Management – Changing Our Ways, A Policy Statement (1998)
[6] Forum for the Construction Industry – *Recycling of Construction and Demolition Waste*
[7] Department of Communications, Climate Action and Environment (DCCAE), Waste Action Plan for the Circular Economy - Ireland's National Waste Policy 2020-2025 (Sept 2020).

The policy document contains over 200 measures across various waste areas including circular economy, municipal waste, consumer protection and citizen engagement, plastics and packaging, construction and demolition, textiles, green public procurement and waste enforcement.

One of the first actions to be taken was the development of the Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less' (2021) [8] to set a course for Ireland to transition across all sectors and at all levels of Government toward circularity and was issued in December 2021. It is anticipated that the Strategy will be updated in full every 18 months to 2 years.

The Circular Economy and Miscellaneous Provisions Act 2022 [9] was signed into law in July 2022. The Act underpins Ireland's shift from a "take-make-waste" linear model to a more sustainable pattern of production and consumption, which retains the value of resources in our economy for as long as possible and that will to significantly reduce our greenhouse gas emissions. The Act defines Circular Economy for the first time in Irish law, incentivises the use of recycled and reusable alternatives to wasteful, single-use disposable packaging, introduces a mandatory segregation and incentivised charging regime for commercial waste, streamlines the national processes for End-of-Waste and By-Products decisions, tackling the delays which can be encountered by industry, and supporting the availability of recycled secondary raw materials in the Irish market, and tackles illegal fly-tipping and littering.

The Environmental Protection Agency (EPA) of Ireland issued 'Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects' in November 2021[10]. The guidelines provide a practical approach which is informed by best practice in the prevention and management of C&D wastes and resources from design to construction of a project, including consideration of the deconstruction of a project. These guidelines have been followed in the preparation of this document and include the following elements:

- Predicted C&D wastes and procedures to prevent, minimise, recycle and reuse wastes;
- Design teams roles and approach;
- Relevant EU, national and local waste policy, legislation and guidelines;
- Waste disposal/recycling of C&D wastes at the site;
- Provision of training for Resource Waste Manager (RM) and site crew;
- Details of proposed record keeping system;
- Details of waste audit procedures and plan; and
- Details of consultation with relevant bodies i.e. waste recycling companies, Local Authority, etc.

Section 3 of the Guidelines identifies thresholds above which there is a requirement for the preparation of a bespoke RWMP for developments. The new guidance classifies developments on a two-tiered system. Developments which do not exceed any of the following thresholds may be classed as Tier 1 development, which require a simplified RWMP:

- New residential development of less than 10 dwellings;
- Retrofit of 20 dwellings or less;
- New commercial, industrial, infrastructural, institutional, educational, health and other developments with an aggregate floor area less than 1,250m^2;
- Retrofit of commercial, industrial, infrastructural, institutional, educational, health and other developments with an aggregate floor area less than 2,000m^2; and
- Demolition projects generating in total less than 100m^3 in volume of C&D waste.

[8] DCCAE, Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less' (2021)
[9] The Circular Economy and Miscellaneous Provisions Act 2022
[10] Environmental Protection Agency (EPA) 'Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021)

A development which exceeds one or more of these thresholds is classed as Tier-2 project. In accordance with the above criteria, the proposed M1 Business Park can be classified as Tier-2 development. The proposed development exceeds the threshold of generating more than a 100m^3 in volume of C&D waste.

The proposed development is located in the local authority area of Fingal County Council, which falls under the Eastern-Midlands Waste Region (EMWR). The Waste Management Plan for the Eastern-Midlands Region 2015 – 2021, consisting of 12 constituent local authorities, is the regional waste management plan to the administrative area.

The Eastern Midlands Region Waste Management plan is a statutory document prepared by the local authorities of the region. It covers the period from 2015 to 2021 and is currently being updated. It is underpinned by National and European waste legislation and the work carried out will ensure the continued management of waste in a safe and sustainable manner. The vision for the plan is to reconsider our approach and attitudes towards managing waste.

The primary focus will be to view waste as a valuable resource in conjunction with making better use of current resources along with the reduction of leakage of material, to include energy, as we make the transition from a linear to a circular economy. While there will be many areas to cover and many crossovers within the implementation of the plan the eight Strategic Objectives within the plan will see an overall achievement of the outlined goals.

The Plan sets forth the following targets to be achieved in the Eastern-Midlands Region:

- 1% reduction per annum in the quality of household waste generated per capita over the period of the Eastern Midlands Region Waste Management plan;
- Reduce to 0% the direct disposal of unprocessed municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and on-site recovery practices;
- Achieve a recycling rate of 50% of managed municipal waste by 2020.

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Leinster Region, charges are approximately €130 - €150 per tonne of waste, which includes a €75 per tonne landfill levy introduced under the Waste Management (Landfill Levy) (Amendment) Regulations 2015.

The Fingal County Development Plan 2023 - 2029[11] sets out a number of policies and objectives in line with the objectives of the regional waste management plan. Waste policies and objectives with a particular relevance to the proposed development are:

- Policy CAP25 – Circular Economy: Support the shift towards the circular economy approach as set out in the National Waste Policy for 2020–2025.
- Policy CAP26 – Waste Management Plans for Construction and Demolition Projects: Have regard to existing Best Practice Guidance on Waste Management Plans for Construction and Demolition Projects as well as any future updates to these Guidelines in order to ensure the consistent application of planning requirements.
- Policy IUP20 – Implementation Of Existing Waste Management Policy: Support the implementation of existing waste management policy and promote education and awareness on all issues associated with waste management, both at industry and community level, including the promotion of waste reduction by encouraging reuse, recycling and recovery of waste. Fingal County Council will continue to promote and support the objectives of the Eastern and Midlands Region Waste Management Plan 2015–2021, or such plans as may be updated.
- Policy IUP22 – Transition From A Waste Economy Towards A Green Circular Economy: Support the principles of transition from a waste economy towards a green circular economy

[11] Fingal County Council Development Plan 2023-2029

and implement good waste management and best practices to enable Fingal to become self-sufficient in terms of resource and waste management and to enhance employment and increase the value recovery and recirculation of resources, in accordance with the Whole of Government Circular Economy Strategy 2022.

- Objective IUO28 – Eastern Midlands Region Waste Management Plan: Implement the provisions of the Eastern Midlands Region Waste Management Plan 2015–2021 or any subsequent Waste Management Plan applicable within the lifetime of the Development Plan.
- Objective IUO29 – Sustainable Waste Recovery And Disposal: Provide for, promote and facilitate high quality sustainable waste recovery and disposal infrastructure/technology in keeping with the EU waste hierarchy, national legislation and regional waste management policy to adequately cater for Fingal's growing population.
- Objective IUO34 – Waste Management in New Developments: Require the provision of appropriate, well designed, accessible space to support the storage, separation and collection of as many waste and recycling streams as possible in all new commercial and residential developments within the County. See also Chapter 14, Development Management Standards.

1.4 Legislative Requirements

The primary legislative instruments that govern waste management in Ireland and applicable to the development are:

- Waste Management Act 1996 as amended;
- Environmental Protection Agency Act 1992 as amended;
- Litter Pollution Act 1997 as amended;
- The Circular Economy and Miscellaneous Provisions Act 2022; and
- Planning and Development Act 2000 (as amended).

One of the guiding principles of European waste legislation, which has in turn been incorporated into the Waste Management Act 1996 as amended and subsequent Irish legislation, is the principle of "Duty of Care". This implies that the waste producer is responsible for waste from the time it is generated through until its legal recycling, recovery or disposal (including its method of disposal). As it is not practical in most cases for the waste producer to physically transfer all waste from where it is produced to the final destination, waste contractors will be employed to physically transport waste to the final destination. Following on from this is the concept of "Polluter Pays" whereby the waste producer is liable to be prosecuted for pollution incidents, which may arise from the incorrect management of waste produced, including the actions of any contractors engaged (e.g. for transportation and disposal/recovery/recycling of waste).

It is therefore imperative that the Developer ensures that the waste contractors engaged by demolition and construction contractors are legally compliant with respect to waste transportation, recycling, recovery and disposal. This includes the requirement that a contractor handle, transport and recycle/recover/dispose of waste in a manner that ensures that no adverse environmental impacts occur as a result of any of these activities.

A collection permit to transport waste must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO). Waste receiving facilities must also be appropriately permitted or licensed. Operators of such facilities cannot receive any waste, unless in possession of a Certificate of Registration (COR) or waste permit granted by the relevant Local Authority under the Waste Management (Facility Permit & Registration) Regulations 2007 and Amendments or a Waste or Industrial Emissions Licence granted by the EPA. The COR / permit / licence held will specify the type and quantity of waste able to be received, stored, sorted, recycled, recovered and/or disposed of at the specified site.

2 Description of the Proposed Developments

2.1 Project Description

The proposed development indicated in Figure 2-1 comprises of the provision of key civil infrastructure to facilitate the future development of the lands for a commercial logistics/warehousing development. This development will become an extension of the existing M1 Business Park development and this planning application entails the following:

- Demolition of a single-storey 200-square-metre (m²) house, an abandoned water storage reservoir and associated pump stations, all located on the western boundary of Zone A;
- Demolition of 13 No. existing buildings consisting of agricultural sheds, stables, warehouses and residential dwellings located in Zone F;
- Provision of civil infrastructure to service future-planned commercial properties on the lands located on the western side of the M1 Business Park and M1 motorway, referred to as Zone A and F.
- Zone A and F lands are located north and south of Bhailsigh Road (L1140), respectively, which connect to Junction 5 of the M1 Motorway and are located in the townlands of Rowan's Big and Rowan's Little.
- Preparation of indicative Masterplan for Zone A and F which contains layouts of the future planned commercial properties, consisting of mixed-use, warehousing and distribution units including associated loading bays for HGVs, service compounds, ESBN substations and parking areas to service each commercial unit site, which would be subject to individual planning permission applications.
- Provision of civil infrastructure designed to service various mixed-use buildings consisting of 20k- to 105k-square-feet (ft²) units with the potential to combine plots should larger units be required.
- In Zone A and F, the civil infrastructure will consist of primary access roads including pedestrian/cycle paths. watermains, surface water and foul drainage networks. utility ducting for services consisting of power and telecommunications.
- The primary access roads into Zone A and F will consist of 7.5-metre-wide single-carriageways originating from Bhailsigh Road (L1140) roundabout including segregated cycle tracks and pedestrian footpaths with associated verges.
- Upgrading of the existing Balrickard stream crossing located in Zone F in accordance with the Office of Public Works Section 50 of the Arterial Drainage Act (1945), guidelines.
- Individual access spurs will be provided from the primary access road to each of the future-planned commercial land parcels.
- Provision of pipelines and associated infrastructure for watermains to service future-planned commercial properties. And
- Provision of surface water drainage infrastructure for the access road and associated infrastructure consisting of Sustainable Urban Drainage Systems features such as attenuation ponds, raingardens, bioretention ponds, Nature-based Solutions (NBS) and conveyance networks.

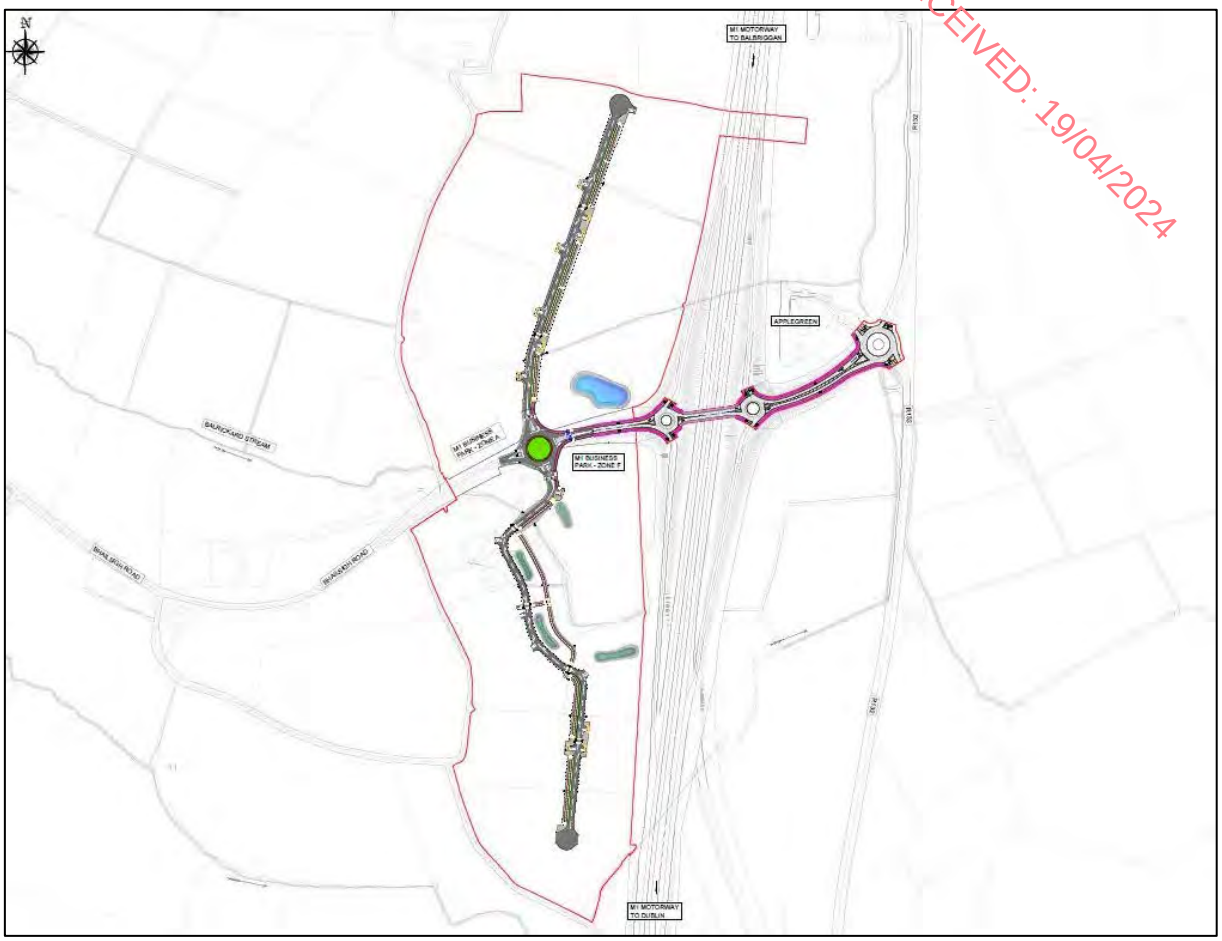

Figure 2-1: Proposed development layout

2.2 Indicative Project Programme and Construction Phasing

It is anticipated that the construction of the proposed development will be phased. The construction of the access roads will be progressed as the demand for the individual land parcels identified in the Scott Tallon Walker Masterplan increases over time. It is anticipated that Phase 1 will consist of a construction period of 8 months which will open the development, with Phase 2 involving a construction period of 6 months as indicated in the indicative Figure 2-2 below. Phase 1 would entail the construction of all the services, utilities and drainage infrastructure required to service both Zone A and F in its entirety.

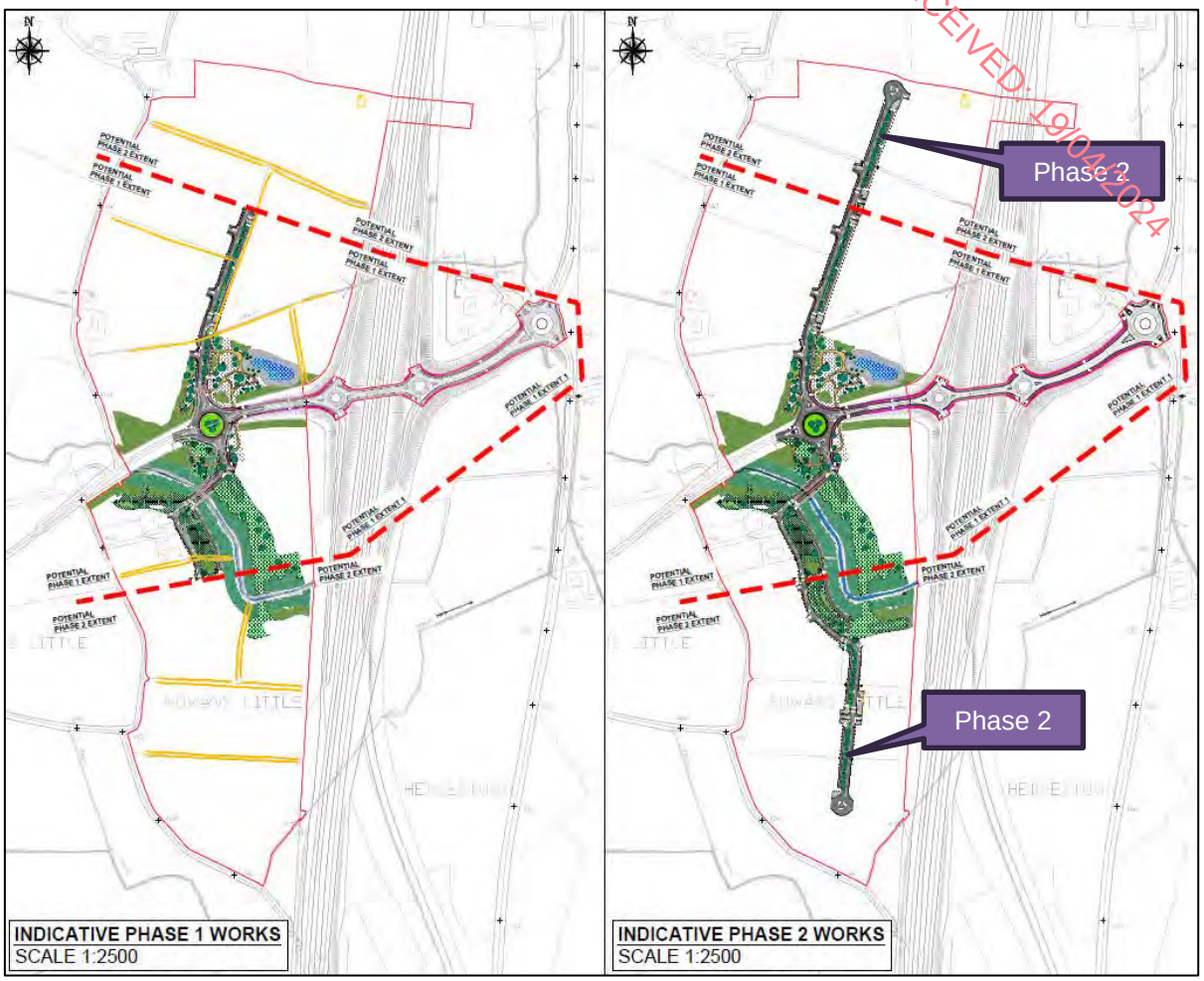

Figure 2-2: Indicative construction phasing

2.3 Site Clearance, Quantities and Demolition Works

As noted in **Section 2.1** above, the proposed development would entail the demolition of all existing structures located on Zone A and F due to their derelict and unsafe condition. Figure 2-3 indicated the location of the structures and Table 2-1 summarises the approximate footprints of the structures.

The areas demarcated below in Table 2-1 as "general site clearance" consists of greenfield areas, which will entail the removal and stockpiling of topsoil and organic material, which will be reused on site following the completion of the works. All other excavation works for the proposed access roads, utilities and other services would result in surplus materials. These materials, replaced by engineering materials such as subbase, pipes, clean sand and gravels, would be reused on site for the levelling of individual land parcels which will be developed in the future.

As far as practical, all non-hazardous materials arising from the demolition of the structures located in Zone A and F, will be segregated, sorted, and transported to appropriate recycling facilities. All hazardous materials or contaminated materials will be managed by appropriate professionals and transported to appropriate hazardous waste disposal facilities.

The resurfacing of the Bhailsigh Road (L1140) roundabout provides a big opportunity for the reuse of granular materials for instance subbase, concrete kerbs and asphalt materials. For subbase materials, a portion can be mixed in with subsoils to strengthen the bearing capacity of the insitu soils. Subbase can also be reclaimed, stockpiled and reused if carried out properly. Asphalt materials once milled can be reused in the production of new asphalt pavement layers. They can also be used on a temporary

basis for the use of temporary parking areas, stockpile areas, access roads and contractor's compounds, which decreases the volume of imported materials needed on a temporary basis. Following the completion of the works, these temporary surfaces can be cleared and materials transported to appropriate recycling, reuse or disposal facilities.

For the pedestrian and cycle linkages along Bhailsigh Road and the R132 to Applegreen, site clearance will entail removal and stockpiling of topsoil, which would be reused for site reinstatement. The existing Armco crash barriers will be relocated to provide sufficient width for the construction of the 3m wide shared paths. Depending on the condition of the barriers, and subject to the approval by Fingal County Council (FCC) and Transport Infrastructure Ireland (TII), the barriers and tanalised poles can be reused.

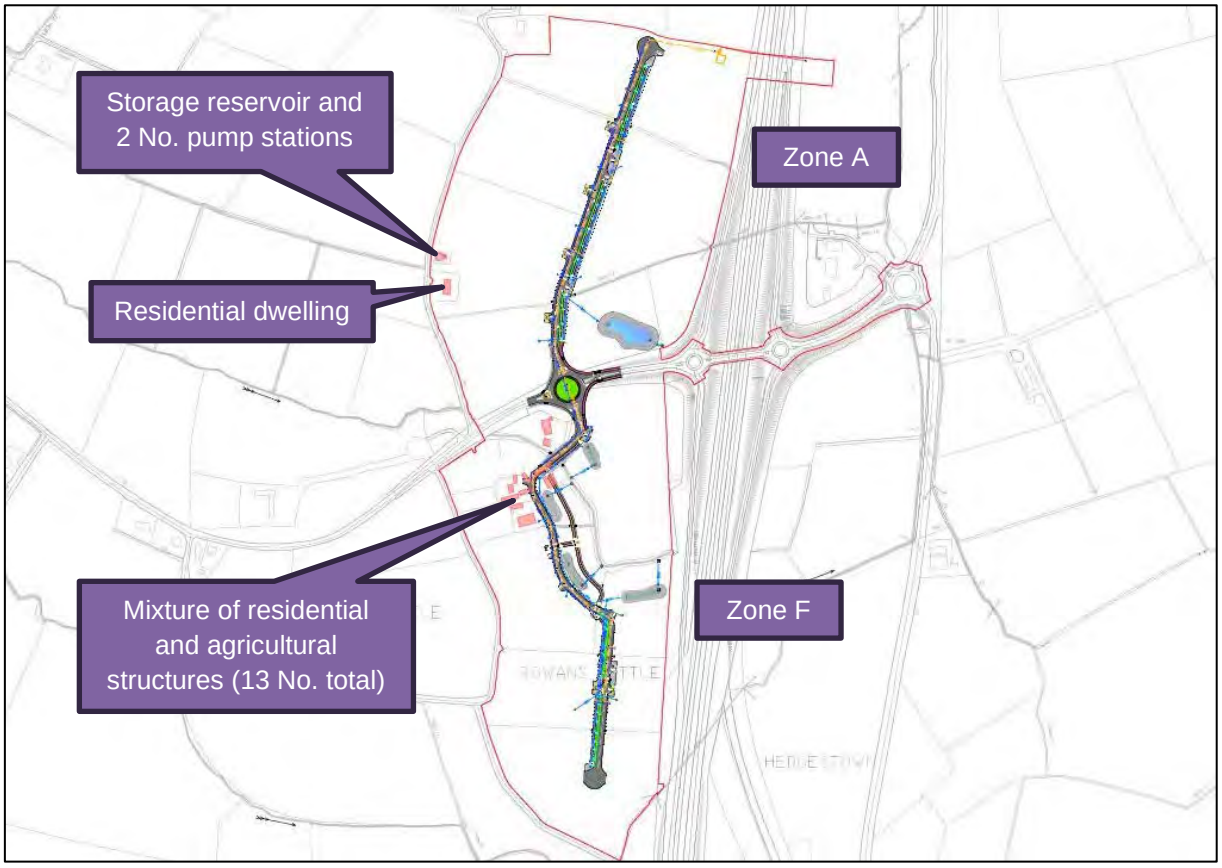

Figure 2-3: Site Layout and demolition works

Table 2-1: Summary of site clearance and demolition works

Item Description	Measurement
Zone A	
General site clearance for proposed civil works	17,500 m^2
Residential dwelling	192 m^2
Water storage reservoir	104 m^2
2 No. pump stations	20.5 m^2
Bhailsigh Road (L1140) and R132	
General site clearance for proposed civil works	2,900 m^2

Resurfacing of Bhailsigh Road roundabout	4,000 m^2
Relocation of existing Armco crash barriers	820 m
Zone F	
General site clearance for proposed civil works	21,500 m^2
Residential Structures including Garages (Structure No. 2, 4, 11, 12, 13)	528 m^2
Agricultural Structures including sheds (Structure No. 1, 3, 5-10)	1,110 m^2

3 Waste Management Strategy

3.1 Scope

The Contractor will develop a RWMP which will detail the following but not limited to:

- Site clearance quantities and areas;
- Excavations and disposal of materials;
- Importation, stockpiling and placing of fill;
- Reuse of construction materials sourced from the site;
- Recycling of materials not used, thus reducing waste volumes;
- Licensing of Waste Disposal Facilities;
- Construction vehicle management; and
- Dust and noise reduction measures.

In accordance with the Fingal Development Plan Objective DMSO242 – Guidance for Construction and Demolition Waste Management Plans, the RWMP will include:

- Hours of operation;
- Construction phasing programme;
- Traffic Management Plan including employee parking and movements;
- Noise, Vibration, Air Quality, Dust Monitoring and Mitigation Measures;
- Details of any construction lighting including appropriate mitigation measures for lighting specifically designed to minimise the impact on biodiversity, including bats;
- The management of construction and demolition waste included as part of the RWMP;
- Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained;
- A Water and Sediment Management Plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains;

3.2 Watse and Recycling Management

The management of construction and demolition waste will reflect the waste management hierarchy, with waste prevention and minimisation being the first priority, followed by reuse and recycling. During site clearance and construction works, there are numerous opportunities for the beneficial reuse and recycling of materials. The subsequent use of recycled materials in construction works also reduces the quantities of waste which ultimately needs to be consigned to landfill sites.

The Contractor will develop and implement a plan and manage all waste with a goal of achieving the waste hierarchy in accordance with the relevant statutory provisions as shown in Figure 3-1.

Figure 3-1: Waste Management Hierarchy as outlined in the EPA Best Practice Guidelines for the Preparation of Resource Management Plans for Construction & Demolition Projects (2021)

3.2.1 Source Segregation

Wastes generated on the construction site will be identified and segregated according to their respective categories, as described by the European Waste Catalogue (EWC). Where possible, metal, timber, glass and other recyclable material will be segregated and removed off-site to a permitted/licensed facility for recycling.

In order to achieve this, designated waste storage areas will be created at the construction compound or other suitable locations for the storage of segregated wastes prior to transport for recovery/disposal at suitably licensed/permitted facilities. Suitably sized containers for each waste stream will be provided within the waste storage area and will be supervised by the Resource and Waste Manager who will be appointed by the Main Contractor. This will be the person responsible for the management of waste during the construction of the project. The number and sizing of containers will be agreed with Waste Contractors in advance of construction works commencing. Source segregation of waste will result in cost savings to the project as well as providing an environmentally sound route for the management of all construction and demolition wastes.

3.2.2 Reuse

Possibilities for reuse of clean, non-hazardous excavation material as fill on the site or in landscaping works will be considered following appropriate testing to ensure material is suitable for its proposed end

use. Ground Investigations (GI) included Waste Acceptance Criteria (WAC) testing shall be carried out on samples on a continuous basis throughout construction.

GI and WAC testing was carried out in October 2023. The majority of samples in Zone A and F tested as Non-Hazardous, except for TP09 located in Zone F, which included a "potentially hazardous amount of chromium in chromium (VI) oxide. Further testing in this location will be carried out prior to the procurement phase to accurately determine the potential for contamination. TP09 is located near the western boundary of Zone F, just south of the agricultural buildings highlighted in Figure 2-3.

3.2.3 Material Management

In order to prevent and minimise the generation of waste, the Contractor will be required to ensure that raw materials are ordered so that the timing of delivery, the quantity delivered, and the storage is not conducive to the creation of unnecessary waste. The Contractor, in conjunction with the material suppliers, will be required to develop a programme showing the estimated delivery dates and quantities for each specific material associated with each element of construction and demolition works.

It is essential that the planning, construction and demolition works are undertaken in close collaboration with waste management contractors, in order to determine the best techniques for managing waste and to ensure an efficient recovery of materials for recycling. The Contractor will be required to continuously seek to improve the waste management process on-site during all stages of construction and maximise opportunities for reuse and recycling where they exist. The RWMP will be included as an agenda item at the weekly construction meetings. In addition, the plan will be communicated to the whole team (including the Client) at the monthly meetings. This will include any updates to earlier versions of the document.

3.2.4 Waste Auditing

The Contractor will record the quantity (in tonnes) and types of waste and materials leaving the site during the construction phase. The name, address and authorisation details of all facilities and locations to which waste and materials from the construction phase are delivered will be recorded along with the quantity of waste (in tonnes) delivered to each facility. Records will show all material recovered and disposed of.

The waste management strategy for the project will follow the accepted waste hierarchy and the Contractor will implement the following types of measures to reduce waste and maximise opportunities for recycling, as far as practicable:

- Materials for construction activities will be ordered as to require the minimum possible storage time;
- Materials will be ordered, where possible, in correct quantities to prevent wastage;
- Appointment of a Resource and Waste Manager, who will be responsible for handling, storage and delivery of materials to the proposed development;
- Ensure that stored material is protected from damage from plant and environmental factors such as rain and wind;
- Secure storage areas to prevent unauthorised access;
- Establish a waste management compound to handle incoming waste from construction activities – this should facilitate the segregation of key waste streams to maximise the opportunity to re-use, recycle and return wastes generated on-site;
- Provide a separate secured area for dealing with hazardous waste; and,
- Provide separate facilities for the storage of fuels and chemicals.

4 Design Approach

The '*Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects*' guidelines into the preliminary design, to help future review processes to identify and evaluate resource reduction measures and investigate the impact on cost, time, quality, buildability, second life and management post demolition and construction. Further details on these design principals can be found within the aforementioned guidance document.

The design team have undertaken the design process in line with the international best practice principles to firstly prevent wastes, reuse where possible and thereafter sustainably reduce and recover materials. The below sections have been the focal point of the design process and material selections and will continued to be analysed and investigated throughout the design process and when selecting material.

The following approaches presented are based on international principles optimises resources and reduces waste on construction projects through:

- Prevention of wastes as far as practicable;
- Reuse of suitable materials;
- Recycling materials at the source;
- Selecting suppliers based on Green Procurement Principles;
- Off-Site Construction provides a controlled space for fabrication, thus reducing wastes;
- Materials Optimisation; and
- Flexibility and Deconstruction.

4.1 Designing for Prevention, Reuse and Recycling

The following aspects were investigated during the preliminary design stage of the proposed development:

- Establishing the potential for any reusable site assets (structures, equipment, materials, soils, etc.);
- Assessing any existing structures/hardstanding areas on the site that can be refurbished either in part or wholly; and
- Enabling the optimum recovery of materials on site, and where materials cannot be reused, recycling is given precedence above transporting materials to waste storage facilities.

4.2 Designing for Green Procurement

Waste prevention measures such as the reuse of materials has been incorporated into the preliminary design of the proposed development. During the detailed design stage where material quantities will be finalised, further measures to reduce wastes will be implemented into the contract documents. Green procurement strategies in construction can help reduce waste and promote sustainability. The following Green Procurement methods will be further developed into the detailed design:

- Selecting construction materials that have a high percentage of recycled content or are made from renewable resources;
- Selecting materials that are locally sourced, reducing transportation costs and the associated carbon footprint;
- Prioritising products that are certified by third-party sustainability organisations;
- Encouraging suppliers to reduce packaging waste by using minimal packaging and recyclable or biodegradable materials;
- Specifying products that are designed for durability and longevity, reducing the need for replacement and associated waste;

4.3 Designing for Off-Site Construction

Use of off-site manufacturing has been shown to reduce residual wastes by up to 90% (volumetric building versus traditional). The decision to use offsite construction is typically cost led but there are significant benefits for resource management. Some further considerations for procurement which are being investigated as part of the planning stage design process are listed as follows:

- Modular buildings as these can displace the use of concrete and the resource losses associated with concrete blocks such as broken blocks, mortars, etc.;
    - Modular structures are typically pre-fitted with fixed plasterboard and installed insulation, eliminating these residual streams from site.
- Use of pre-cast structural concrete panels which can reduce the residual volumes of concrete blocks, mortars, plasters, etc.;
- The use of prefabricated composite panels for walls and roofing to reduce residual volumes of insulation and plasterboards;
- Using pre-cast hollow-core flooring instead of in-situ ready mix flooring or timber flooring to reduce the residual volumes of concrete/formwork and wood/packaging, respectively; and

Designing for the preferential use of offsite modular units.

4.4 Designing for Materials Optimisation During Construction

To ensure manufacturers and construction companies adopt lean production models, including maximising the reuse of materials onsite. This helps to reduce the environmental impacts associated with transportation of materials and from waste management activities. This includes investigating the use of standardised sizes for certain materials to help reduce the number of off-cuts produced on site, focusing on promotion and development of off-site manufacture.

4.5 Designing for Flexibility and Deconstruction

Design flexibility has and will be investigated throughout the design process to ensure that where possible products only contain materials that can be recycled and are designed to be easily disassembled. Material efficiency is being considered for the duration and end of life of a building project to produce; flexible, adaptable spaces that enable a resource-efficient, low-waste future change of use; durability of materials and how they can be recovered effectively when maintenance and refurbishment are undertaken and during disassembly/deconstruction.

5 Waste Stream Identification

5.1 Non-Hazardous Waste Streams

There will be soil, stones, clay and made ground excavated to facilitate construction of the development. During the construction phase there may be a surplus of building materials, such as timber off-cuts, broken concrete blocks, cladding, plastics, metals and tiles generated. There may also be excess concrete during construction which will need to be disposed of. Plastic and cardboard waste from packaging and supply of materials will also be generated. The contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

Waste will also be generated from construction workers e.g. organic / food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided on site during the construction phase. Waste printer / toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

A general list of non-hazardous wastes which will arise from the construction works are:

- Topsoil, sub-soil, stones, made ground fill from excavations;
- Excess new concrete and bricks;
- Excess asphalt and tar products;
- Scrap metal;
- Cardboard and other packaging;
- Plastic including wrapping and packaging;
- Waste wood;
- Paper;
- Glass;
- Waste from portable toilets;
- Canteen and food wastes; and
- Damaged materials.

5.2 Potentially Hazardous Waste Streams

5.2.1 Contaminated Soils

Environmental testing was carried out on 12 samples (6 per zone) from the investigation and the results are shown in the Investigation report submitted with this application. For material to be removed from site, Suite I (Rilta Suite) testing was carried out to determine if the material is hazardous or non-hazardous and then the leachate results were compared with the published waste acceptance limits of BS EN 12457-2 to determine whether the material on the site could be accepted as 'inert material' by an Irish landfill. Following this analysis of the solid test results, the leachate results generally remained within the Inert thresholds.

The Waste Classification report created using HazWasteOnline™ software shows that the material tested can be classified as non-hazardous material. The majority of samples in Zone A and F tested as Non-Hazardous, except for TP09 located in Zone F, which included a "potentially hazardous amount of chromium in chromium (VI) oxide. Further testing in this location will be carried out prior to the procurement phase to accurately determine the potential for contamination.

If any potentially contaminated material is encountered, it will need to be segregated from clean / inert material, tested and classified as either non-hazardous or hazardous in accordance with the EPA publication entitled 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous' 14 using the HazWasteOnline™ application (or similar approved classification method). The material will then need to be classified as clean, inert, non-hazardous or hazardous in accordance with the EC Council Decision 2003/33/EC 15, which establishes the criteria for the acceptance of waste at landfills.

In the event that Asbestos Containing Materials (ACMs) are found within the excavated material, the removal will only be carried out by a suitably permitted waste contractor, in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010. All asbestos will be taken to a suitably licensed or permitted facility.

In the event that hazardous soil, or historically deposited waste is encountered during the construction phase, the contractor will notify the Employer's Representative and FCC Waste Department and provide a Hazardous / Contaminated Soil Management Plan, to include estimated tonnages, description of location, any relevant mitigation, destination for disposal / treatment, in addition to information on the authorised waste collector(s).

Due to a mixture of historic landfills and land reclamation, there are a number of locations in Fingal where contaminated land arises. Any contaminated land will require appropriate remediation prior to re-

development, including, in some instances, removal of material from a site which may require a licence under the Waste Management Act 1996 (as amended), prior to the undertaking of such works. In all cases involving contaminated land, it is the policy of Fingal County Council to require the highest standards of remediation and where appropriate to consult with the Environmental Protection Agency and other relevant bodies to resolve the environmental pollution created by contaminated land. Decontamination activities should ensure there is no off-site migration of contaminants via runoff, soils or groundwater and the area is available for use.

5.2.2 Fuels/Oils and other Hydrocarbons

Fuels and oils are classed as hazardous materials; any on-site storage of fuel / oil, and all storage tanks and all draw-off points will be bunded and located in a dedicated, secure area of the site. Provided that these requirements are adhered to and the site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel / oil waste generated at the site.

5.2.3 Other Known Hazardous Substances

Paints, glues, adhesives and other known hazardous substances will be stored in designated areas. They will generally be present in small volumes only and associated waste volumes generated will be kept to a minimum. Wastes will be stored in appropriate receptacles pending collection by an authorised waste contractor.

In addition, WEEE (containing hazardous components), printer toner / cartridges, batteries (Lead, Ni-Cd or Mercury) and / or fluorescent tubes and other mercury containing waste may be generated from during construction and demolition activities or temporary site offices. These wastes, if generated, will be stored in appropriate receptacles in designated areas of the site pending collection by an authorised waste contractor.

6 Key Materials and Quantities

6.1 Project Resource Targets

Project specific resource and waste management targets for the proposed development is highlighted in this section of the RWMP based on the preliminary design. It is not expected that the detailed design stage will result in significant increase in waste volumes. It is expected for projects of this nature that a minimum of 70% of waste is fully re-used, recycled or recovered. Target setting will inform the setting of project-specific benchmarks to track target progress. Typical Key Performance Indicators (KPIs) that may be used to set targets include (as per guidelines):

- Weight (tonnes) or Volume (m^3) of waste generated per construction value;
- Weight (tonnes) or Volume (m^3) of waste generated per construction floor area (m^2);
- Fraction of resource reused on site;
- Fraction of resource notified as by-product;
- Fraction of waste segregated at source before being sent off-site for recycling/recovery; and
- Fraction of waste recovered, fraction of waste recycled, or fraction of waste disposed.

6.2 Main Construction and Demolition Waste Categories

The main non-hazardous and hazardous waste streams that could be generated by the construction activities at a typical site are shown in Table 6-1. The List of Waste (LoW) code (applicable as of 1 June 2015) (also referred to as the European Waste Code (EWC)) for each waste stream is also shown.

Table 6-1: Typical C&D waste expected from the construction phase of the Proposed Development

Waste Material	LoW / EWC Code
Concrete, bricks, tiles and ceramics	17 01
Bricks	17 01 01
Tiles	17 01 02
Ceramics	17 01 03
Mixture of concrete, bricks, tiles and ceramics	17 01 07
Wood, glass and plastic	17 02
Wood	17 02 01
Glass	17 02 02
Plastic	17 02 03
Bituminous mixtures, coal tar and products	17 03 01
Bituminous mixtures containing other than those mentioned in 17 03 01	17 03 02
Metals (including their alloys)	17 04
Copper, bronze, brass	17 04 01
Aluminium	17 04 02
Lead	17 04 03
Zinc	17 04 04
Iron and Steel	17 04 05
Tin	17 04 06
Mixed Metals	17 04 07
Soul and stones containing hazardous substances	17 05 04
Soils and stones, other than those mentioned in 17 05 03*	17 06 04
Insulation and Construction Materials	17 06 05
Construction materials containing asbestos	17 08 02
Gypsum based construction material	17 09 04
Mixed C&D waste not mentioned in 17 09 01 to 17 09 03	17 09 04
Paper and cardboard	20 01 01
Wood other than mentioned in 20 01 37	20 01 38
Soil and Stones	20 02 02
Mixed Municipal Waster	20 03 01
Hydraulic oils	13 01 01
Fuel oils and diesel	13 07 01

Aqueous liquid waste other than those mentioned in 16 10 01 (portable toilet wastes)	16 10 02

* Individual waste type may contain hazardous substances

6.3 Demolition Waste Generation

The demolition stage will involve the excavation of existing structures, minor hardstanding areas, roads, and kerbs. The demolition areas are identified in the planning drawings provided with this application. The anticipated demolition waste and rates of reuse, recycling / recovery and disposal are shown in Table 6-2.

Table 6-2: Estimated off-site reuse, recycle and disposal rates for demolition waste

Waste Type	Est. Tonnes	Reuse/Recycle		Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Concrete/Masonry	1,400	1190	10%	140	5%	70	1190
Wood	800	160	10%	80	70%	560	160
Metals	800	760	5%	40	0%	0	760
Glass	30	27	10%	3	0%	0	27
Asphalt	1,200	1020	10%	120	5%	60	1020
Soils/Gravels	3,500	2800	15%	525	5%	175	2800
Other	100	20	10%	10	70%	70	20
Total	**7,800**	**6000**		**900**		**900**	**6000**

6.4 Proposed Waste Management Options

Waste materials generated will be segregated on-site, where it is practical. Where the on-site segregation of certain waste types is not practical, off-site segregation will be carried out. There will be skips and receptacles provided to facilitate segregation at source, where feasible. All waste receptacles leaving the site will be covered or enclosed. The appointed waste contractor will collect and transfer the wastes as receptacles are filled. There are numerous waste contractors in the Fingal region that provide this service.

All waste arisings will be handled by an approved waste contractor holding a current waste collection permit. All waste arisings requiring disposal off-site will be reused, recycled, recovered or disposed of at a facility holding the appropriate registration, permit or licence, as required.

During construction, some of the sub-contractors on site will generate waste in relatively low quantities. The transportation of non-hazardous waste by persons who are not directly involved with the waste business, at weights less than or equal to 2 tonnes, and in vehicles not designed for the carriage of waste, are exempt from the requirement to have a waste collection permit (per Article 30 (1) (b) of the Waste Collection Permit Regulations 2007, as amended). Any sub-contractors engaged that do not generate more than 2 tonnes of waste at any one time can transport this waste off-site in their work vehicles (which are not designed for the carriage of waste). However, they are required to ensure that the receiving facility has the appropriate Certificate of Registration / permit / licence.

Written records will be maintained by the contractor(s), detailing the waste arising throughout the C&D phases, the classification of each waste type, waste collection permits for all waste contactors who collect waste from the site and Certificate of Registration / permit / licence for the receiving waste facility for all waste removed off-site for appropriate reuse, recycling, recovery and / or disposal.

Dedicated bunded storage containers will be provided for hazardous wastes which may arise, such as batteries, paints, oils, chemicals, if required.

The anticipated management of the main waste streams is outlined as follows:

6.4.1 Soils, Stone, Gravel, Clay and Made Ground

The waste hierarchy states that the preferred option for waste management is prevention and minimisation of waste, followed by preparing for reuse and recycling / recovery, energy recovery (i.e. incineration) and, least favoured of all, disposal. The excavations are required to facilitate construction works so the preferred option (prevention and minimisation) cannot be accommodated for the excavation phase.

When material is removed off-site it could be reused as a by-product (and not as a waste). If this is done, it will be done in accordance with Article 27 of the European Communities (Waste Directive) Regulations 2011, which requires that certain conditions be met and that by-product notifications are made to the EPA via their online notification form. Excavated material should not be removed from site until approval from the EPA has been received. The potential to reuse material as a by-product will be confirmed during the course of the excavation works, with the objective of eliminating any unnecessary disposal of material.

The next option (beneficial reuse) may be appropriate for the excavated material, pending environmental testing to classify the material as hazardous or non-hazardous in accordance with the EPA Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous publication. Clean inert material may be used as fill material in other construction projects or engineering fill for waste licensed sites. Beneficial reuse of surplus excavation material as engineering fill may be subject to further testing to determine if materials meet the specific engineering standards for their proposed end use.

Any nearby sites requiring clean fill/capping material will be contacted to investigate reuse opportunities for clean and inert material. If any of the material is to be reused on another site as a by-product (and not as a waste), this will be done in accordance with Article 27. Similarly, if any soils/stones are imported onto the site from another construction site as a by-product, this will also be done in accordance with Article 27. Article 27 will be investigated to see if the material can be imported onto this site for beneficial reuse instead of using virgin materials.

If the material is deemed to be a waste, then removal and reuse / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 as amended, the Waste Management (Collection Permit) Regulations 2007 as amended and the Waste Management (Facility Permit & Registration) Regulations 2007 as amended. Once all available beneficial reuse options have been exhausted, the options of recycling and recovery at waste permitted and licensed sites will be considered.

In the event that contaminated material is encountered and subsequently classified as hazardous, this material will be stored separately to any non-hazardous material. It will require off-site treatment at a suitable facility or disposal abroad via Transfrontier Shipment of Wastes (TFS).

6.4.2 Bedrock

While it is not envisaged that bedrock will be encountered, if bedrock is encountered, it is anticipated that it will not be crushed on site. Any excavated rock is expected to be removed off-site for appropriate reuse, recovery and / or disposal. If bedrock is to be crushed on-site, the appropriate mobile waste facility permit will be obtained from Fingal County Council.

6.4.3 Silt and Sludge

During the construction phase, silt and petrochemical interception will be carried out on run-off and pumped water from site works, where required. Sludge and silt will then be collected by a suitably licensed contractor and removed off-site.

6.4.4 Concrete, Bricks, Tiles and Ceramics

The majority of concrete blocks, bricks, tiles and ceramics generated as part of the construction works are expected to be clean, inert material and should be recycled, where possible. If concrete is to be crushed on-site, the appropriate mobile waste facility permit will be obtained from Fingal County Council.

6.4.5 Plastics

As hard plastic is a highly recyclable material, much of the plastic generated will be primarily from material off-cuts. All recyclable plastic will be segregated and recycled, where possible.

6.4.6 Timber

Timber that is uncontaminated, i.e. free from paints, preservatives, glues, etc., will be disposed of in a separate skip and recycled off-site.

6.4.7 Metal

Metals will be segregated, where practical, and stored in skips. Metal is highly recyclable and there are numerous companies that will accept these materials.

6.4.8 Glass

Glass materials will be segregated for recycling, where possible.

6.4.9 Waste Electrical & Electronic Equipment (WEEE)

Any WEEE will be stored in dedicated covered cages / receptacles / pallets pending collection for recycling.

6.4.10 Other Recyclable Waste

Where any other recyclable wastes, such as cardboard and soft plastic, are generated, these will be segregated at source into dedicated skips and removed off-site.

6.4.11 Non-Recyclable Waste

C&D waste which is not suitable for reuse or recovery, such as polystyrene, some plastics and some cardboards, will be placed in separate skips or other receptacles. Prior to removal from site, the non-recyclable waste skip / receptacle will be examined by a member of the waste team (see **Section 9**) to determine if recyclable materials have been placed in there by mistake. If this is the case, efforts will be made to determine the cause of the waste not being segregated correctly and recyclable waste will be removed and placed into the appropriate receptacle.

6.4.12 Asbestos Containing Materials

Any asbestos or ACM found on-site should be removed by a suitably competent contractor and disposed of as asbestos waste before the demolition works begin. All asbestos removal work or encapsulation work must be carried out in accordance with S.I. No. 589 of 2010 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010.

6.4.13 Other Hazardous Wastes

On-site storage of any hazardous wastes produced (i.e. contaminated soil if encountered and / or waste fuels) will be kept to a minimum, with removal off-site organised on a regular basis. Storage of all hazardous wastes on-site will be undertaken so as to minimise exposure to on-site personnel and the public and to also minimise potential for environmental impacts. Hazardous wastes will be recovered, wherever possible, and failing this, disposed of appropriately.

6.4.14 On-Site Crushing

It is currently not envisaged that the crushing of waste materials will occur on-site. However, if the crushing of material is to be undertaken, a mobile waste facility permit will first be obtained from Fingal County Council, and the destination of the accepting waste facility will be supplied to the Fingal County Council waste unit.

7 Estimated Cost of Waste Management

An outline of the costs associated with different aspects of waste management is outlined below. The total cost of C&D waste management will be measured and will take into account handling costs, storage costs, transportation costs, revenue from rebates and disposal costs.

7.1 Reuse

Reusing materials on site will reduce the transport and recycle / recovery / disposal costs associated with the requirement for a waste contractor to take the material off-site. Clean and inert soils, gravel, stones, etc., which cannot be reused on-site may be used as access roads or capping material for landfill sites, etc. This material is often taken free of charge or at a reduced fee for such purposes, reducing final waste disposal costs.

7.2 Recycling

Salvageable metals will earn a rebate, which can be offset against the costs of collection and transportation of the skips.

Clean, uncontaminated cardboard and certain hard plastics can also be recycled. Waste contractors will charge considerably less to take segregated wastes, such as recyclable waste, from a site than mixed waste.

Timber can be recycled as chipboard. Again, waste contractors will charge considerably less to take segregated wastes, such as timber, from a site than mixed waste.

7.3 Disposal

Landfill charges are currently at around €130 - €150 per tonne which includes a €75 per tonne landfill levy specified in the Waste Management (Landfill Levy) Regulations 2015. In addition to disposal costs, waste contractors will also charge a collection fee for skips.

Collection of segregated C&D waste usually costs less than municipal waste. Specific C&D waste contractors take the waste off-site to a licensed or permitted facility and, where possible, remove salvageable items from the waste stream before disposing of the remainder to landfill. Clean soil, rubble, etc., is also used as fill / capping material, wherever possible.

8 Demolition Procedures

The demolition areas are identified in the planning drawings submitted as part of this application. A formal demolition plan including safety procedures will be prepared by the contractor. However, in general, the following sequence of works should be followed during the demolition/excavation stage:

- A top-down approach shall be followed;
- Materials shall be loosened/removed one section at a time, starting with the roof elements;
- Materials shall be segregated on site as they are removed and placed in the relevant skips and/or stockpiles;

9 Roles and Responsibilities

The Best Practice Guidelines on the Preparation of Resource Waste Management Plans for Construction and Demolition Projects promotes that a Resource and Waste Manager should be appointed. The Resource and Waste Manager may be performed by number of different individuals over the life cycle of the Project; however it is intended to be a reliable person chosen from within the Planning/Design/Contracting Team, who is technically competent and appropriately trained, who takes the responsibility to ensure that the objectives and measures within the Project RWMP are complied with. The Resource and Waste Manager is assigned the requisite authority to meet the objective and obligations of the RWMP. The role will include the important activities of conducting waste checks/audits and adopting construction and demolition methodology that is designed to facilitate maximum reuse and/or recycling of waste.

9.1 Role of the Client

The Client is the body establishing the aims and the performance targets for the project.

- The Client has commissioned the preparation and submission of this outline RWMP as part of the design and planning submission;
- The Client is to commission the preparation and submission of an updated RWMP as part of the construction tendering process;
- The Client will ensure that the RWMP is reviewed by competent persons and submitted to the local authority prior to commencement of works on site;
- The Client is to request the end-of-project RWMP from the Contractor.

9.2 Role of Client Advisory Team

The Client Advisory Team or Design Team is formed of architects, consultants, quantity surveyors and engineers and is responsible for:

- Drafting and maintaining the RWMP through the design, planning and procurement phases of the project;
- Appointing a Resource and Waste Manager to track and document the design process, inform the Design Team and prepare the RWMP;
- Including details and estimated quantities of all projected waste streams with the support of environmental consultants/scientists. This should also include data on waste types (e.g. waste characterisation data, contaminated land assessments, site investigation information) and prevention mechanisms (such as by-products) to illustrate the positive circular economy principles applied by the Design Team;
- Managing and valuing the demolition work with the support of quantity surveyors;
- Handing over of the RWMP to the selected Contractor upon commencement of construction of the development, in a similar fashion to how the safety file is handed over to the Contractor;

- Working with the Contractor as required to meet the performance targets for the project.

9.3 Future Role of the Contractor

The future demolition and construction Contractors have not yet been decided upon for this RWMP. However, once select they will have major roles to fulfil. They will be responsible for:

- Preparing, implementing and reviewing the (including the Pre-Demolition) RWMP throughout the demolition and construction phases (including the management of all suppliers and sub-contractors) as per the requirements of these guidelines;
- Identifying a designated and suitably qualified Resource and Waste Manager who will be responsible for implementing the RWMP;
- Identifying all hauliers to be engaged to transport each of the resources / wastes off-site;
- Implementing waste management policies whereby waste materials generated on site are to be segregated as far as practicable;
- Identifying and using suppliers with a track record of using sustainable procurement and manufacturing processes;
- Applying for the appropriate waste permits for construction materials recycling and wastes;
- Identifying all destinations for resources taken off-site. As above, any resource that is legally classified as a 'waste' must only be transported to an authorised waste facility;
- End-of-waste and by-product notifications addressed with the EPA where required;
- Clarification of any other statutory waste management obligations, which could include on-site processing;
- Full records of all resources (both wastes and other resources) should be maintained for the duration of the project; and
- Preparing a RWMP Implementation Review Report at project handover.

10 Training

A member of the construction team will be appointed as the Resource and Waste Manager to ensure commitment, operational efficiency and accountability in relation to waste management during the C&D phases of the development.

10.1 Resource Waste Manager

The nominated Resource and Waste Manager will be given responsibility and authority to select a waste team if required, i.e. members of the site crew that will aid them in the organisation, operation and recording of the waste management system implemented on site.

The Resource and Waste Manager will have overall responsibility to oversee, record and provide feedback to the client on everyday waste management at the site. Authority will be given to the Resource and Waste Manager to delegate responsibility to sub-contractors, where necessary, and to coordinate with suppliers, service providers and sub-contractors to prioritise waste prevention and material salvage.

The Resource and Waste Manager will be trained in how to set up and maintain a record keeping system, how to perform an audit and how to establish targets for waste management on site. The Resource and Waste Manager will also be trained in the best methods for segregation and storage of recyclable materials, have information on the materials that can be reused on site and be knowledgeable in how to implement this RWMP.

10.2 Site Personnel

Training of site crew in relation to waste is the responsibility of the Resource and Waste Manager and, as such, a waste training program should be organised. A basic awareness course will be held for all

site crew to outline the RWMP and to detail the segregation of waste materials at source. This may be incorporated with other site training needs such as general site induction, health and safety awareness and manual handling.

This basic course will describe the materials to be segregated, the storage methods and the location of the Waste Storage Areas (WSAs). A sub-section on hazardous wastes will be incorporated into the training program and the particular dangers of each hazardous waste will be explained.

10.3 Waste Records

The Contractor shall capture the full details of all wastes generated, stored, segregated and transported during all stages of the proposed construction works. Each consignment of construction and demolition wastes removed from the site will be documented in the form of a Waste Movement Record form, which will ensure full traceability of the material to its final destination. Separate record forms will be completed in respect to each waste transfer that takes place. The Contractor shall receive printed documents/records from waste disposal companies utilised, which quantifies the exact volume/weight of waste material removed from site. The sheet from the retrieval/transport company shall identify volumes of wastes transported to disposal and/or recycling facilities. All such records will be retained in a designated location and made available for auditing of the RWMP.

Consultations with waste contractors and Fingal County Council throughout the construction phase shall be pursued by the Contractor to ensure best practices for waste management are being followed.

A waste tracking log should be used to track each waste movement from the site. On exit from the site, the waste collection vehicle driver should stop at the site office, sign out as a visitor, and provide the security personnel or Resource and Waste Manager with a waste docket (or Waste Transfer Form (WTF) for hazardous waste) for the waste load collected. At this time, the security personnel should complete and sign the Waste Tracking Register with the following information:

- Date
- Time
- Waste Contractor
- Company waste contractor appointed by, e.g. Contractor or subcontractor name
- Collection Permit No.
- Vehicle Reg.
- Driver Name
- Docket No.
- Waste Type
- EWC / LoW

The waste vehicle will be checked by security personal or the Resource and Waste Manager to ensure it has the waste collection permit no. displayed and a copy of the waste collection permit in the vehicle before they are allowed to remove the waste from the site.

The waste transfer dockets will be transferred to the Resource and Waste Manager on a weekly basis and can be placed in the Waste Tracking Log file. This information will be forwarded onto the Fingal County Council Waste Regulation Unit when requested.

Each subcontractor that has engaged their own waste contractor will be required to maintain a similar waste tracking log with the waste dockets / WTF maintained on file and available for inspection on site by the main contractor as required. These subcontractor logs will be merged with the main waste log.

Waste receipts from the receiving waste facility will also be obtained by the site contractor(s) and retained. A copy of the Waste Collection Permits, Certificate of Registrations, Waste Facility Permits and Waste Licences will be maintained on site at all times and will be periodically reviewed by the

Resource and Waste Manager. Subcontractors who have engaged their own waste contractors, should provide the main contractor with a copy of the waste collection permits and Certificate of Registration / permit / licence for the receiving waste facilities and maintain a copy on file, available for inspection on site as required.

11 Outline Waste Audit Procedures

11.1 Responsibility of Waste Audits

The appointed Resource and Waste Manager will be responsible for conducting a waste audit at the site during the C&D phase of the proposed Project. Contact details for the nominated Resource and Waste Manager will be provided to the Fingal County Council Waste Regulation Unit after the main contractor is appointed and prior to any material being removed from site.

11.2 Review of Records and Identification of Corrective Actions

A review of all waste management costs and the records for the waste generated and transported off-site should be undertaken mid-way through the demolition and construction phase of the proposed Project.

If waste movements are not accounted for, the reasons for this should be established in order to see if and why the record keeping system has not been maintained. The waste records will be compared with the established recovery / reuse / recycling targets for the site. Each material type will be examined, in order to see where the largest percentage waste generation is occurring. The waste management methods for each material type will be reviewed in order to highlight how the targets can be achieved.

Upon completion of the C&D phase, a final report will be prepared, summarising the outcomes of waste management processes adopted and the total recycling / reuse / recovery figures for the development.

12 Consultations with Relevant Bodies

12.1 Local Authority

Once construction contractors have been appointed and have appointed waste contractors, and prior to removal of any C&D waste materials off-site, details of the proposed destination of each waste stream will be provided to the Fingal County Council Waste Regulation Unit.

Fingal County Council will also be consulted, as required, throughout the demolition, excavation and construction phases in order to ensure that all available waste reduction, reuse and recycling opportunities are identified and utilised and that compliant waste management practices are carried out.

12.2 Recycling/Salvage Companies

The appointed waste contractor for the main waste streams managed by the demolition and construction contractors will be audited in order to ensure that relevant and up-to-date waste collection permits and facility registrations / permits / licences are held. In addition, information will be obtained regarding the feasibility of recycling each material, the costs of recycling / reclamation, the means by which the wastes will be collected and transported off-site, and the recycling / reclamation process each material will undergo off-site.

13 References

- Council Decision 2003/33/EC, establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC.
- DCCAE, Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less' (2021).
- Department of Communications, Climate Action and Environment (DCCAE), Waste Action Plan for the Circular Economy - Ireland's National Waste Policy 2020-2025 (Sept 2020).
- Department of Environment and Local Government (DoELG) Waste Management – Changing Our Ways, A Policy Statement (1998).
- Department of Environment, Heritage and Local Government, Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects (2006).
- Environmental Protection Agency (EPA) 'Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021).
- Environmental Protection Agency (EPA), National Waste Database Reports 1998 – 2012.
- Environmental Protection Agency Act 1992 as amended.
- EPA and Galway-Mayo Institute of Technology (GMIT), EPA Research Report 146 – A Review of Design and Construction Waste Management Practices in Selected Case Studies – Lessons Learned (2015).
- EPA, Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous (2018).
- FÁS and the Construction Industry Federation (CIF), Construction and Demolition Waste Management – a handbook for Contractors and site Managers (2002).
- Forum for the Construction Industry – Recycling of Construction and Demolition Waste.
- Litter Pollution Act 1997 (S.I. No. 12 of 1997) as amended.
- Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended.
- Eastern-Midlands Region Waste Management Plan 2015 – 2021 (2015).
- Fingal County Council, Development Plan 2023 – 2029.
- Waste Management Act 1996 (No. 10 of 1996) as amended.

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Clifton Scannell Emerson & Associates

M1 Business Park Zone A & F Development Road

Stage 1 Road Safety Audit

P·M·C·E

March 2024

Clifton Scannell Emerson & Associates

M1 Business Park Zone A & F Development Road

Stage 1 Road Safety Audit

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2.0	RIF	TAG	TAG	12th March 2024	Final
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Table of Contents

1 Introduction

1.1 General

This report results from a Stage 1 Road Safety Audit on the proposed M1 Business Park Zone A & F Development Road carried out at the request of Ms. Laura Peare of Clifton Scannell Emerson & Associates.

The members of the Road Safety Audit Team are independent of the design team, and include:

Mr. Aly Gleeson
(BSc, MEng, MBA, RSACert, CEng, FIEI)
Road Safety Audit Team Leader

Ms. Rebecca Farnan
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Road Safety Audit Team Member

Ms. Xue Yan
(BEng, MSc, MIEI)
Road Safety Audit Trainee Observer

The Road Safety Audit took place during February and March 2024 and comprised an examination of the documents provided by the designers (see Appendix A). In addition to examining the documents supplied the Road Safety Audit Team visited the site of the proposed measures on the 28th February 2024. Weather conditions during the site visit were wet and the road surface was wet. Traffic volumes during the site visit were low, pedestrian and cyclist volumes were low and traffic speeds were considered to be generally within the posted speed limit.

Where problems are relevant to specific locations these are shown on drawing extracts within the main body of the report and their locations are shown in Appendix B. Where problems are general to the proposals sample drawing extracts are within the main body of the report, where considered necessary.

This Stage 1 Road Safety Audit has been carried out in accordance with the requirements of GE-STY-01024 - Road Safety Audit (December 2017), contained on the Transport Infrastructure Ireland (TII) Publications website.

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety and considers the perspective of all road users. It has not been examined or verified for compliance with any other standards or criteria. The problems identified in this report are considered to require action in order to improve the safety of the scheme and minimise collision occurrence.

If any of the recommendations within this road safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observations are intended to be for information only. Written responses to Observations are not required.

1.2 Items Not Submitted for Auditing

Details of the following items were not submitted for audit; therefore, no specific problems have been identified at this stage relating to these design elements, however where the absence of this information has given rise to a safety concern it has been commented upon in Section 3:

- Landscaping
- Personal Injury Collision Data
- Public Lighting

2 Project Description

The proposed Business Park is located near Junction 5 of the M1, approximately 5.5km northeast of Lusk and 5.5km southwest of Balbriggan. The new development road linking Zones A and F of the proposed Business Park is the subject of this Stage 1 Road Safety Audit, with Zone A located on the northern side of the L1140 and Zone F located on the southern side of the road (see Figure 2.1). The lands surrounding the business park are largely greenfield in nature and the site boundary extends eastwards along the L1140 to its junction with the R132.

Zone A and F would be accessed at the L1140 roundabout via the L1140 local road. On its approach to the roundabout, this is a two-way single carriageway road approximately 7.5m wide and there are no existing pedestrian or cyclist facilities on either side of the road. The L1140 has a posted speed limit of 60kph in the vicinity the roundabout which would connect to the proposed development.

The proposed development includes:

- Provision of civil infrastructure to service future-planned commercial properties, comprising main access roads including pedestrian/cycle paths; watermains, surface water and foul drainage networks; utility services including power and telecommunications.
- Provision of surface water drainage infrastructure for the access road and associated infrastructure consisting of Sustainable Urban Drainage Systems features including an attenuation pond and raingardens.
- Upgrading and modification of the existing L1140 roundabout.
- Provision of 3.0m wide shared paths from the proposed Zone A and F site entrances, over the M1 Motorway via the L1140 to the existing roundabout intersection between the L1140 and R132.
- All associated road works including surfacing, line marking, landscaping, controlled and uncontrolled pedestrian crossings.

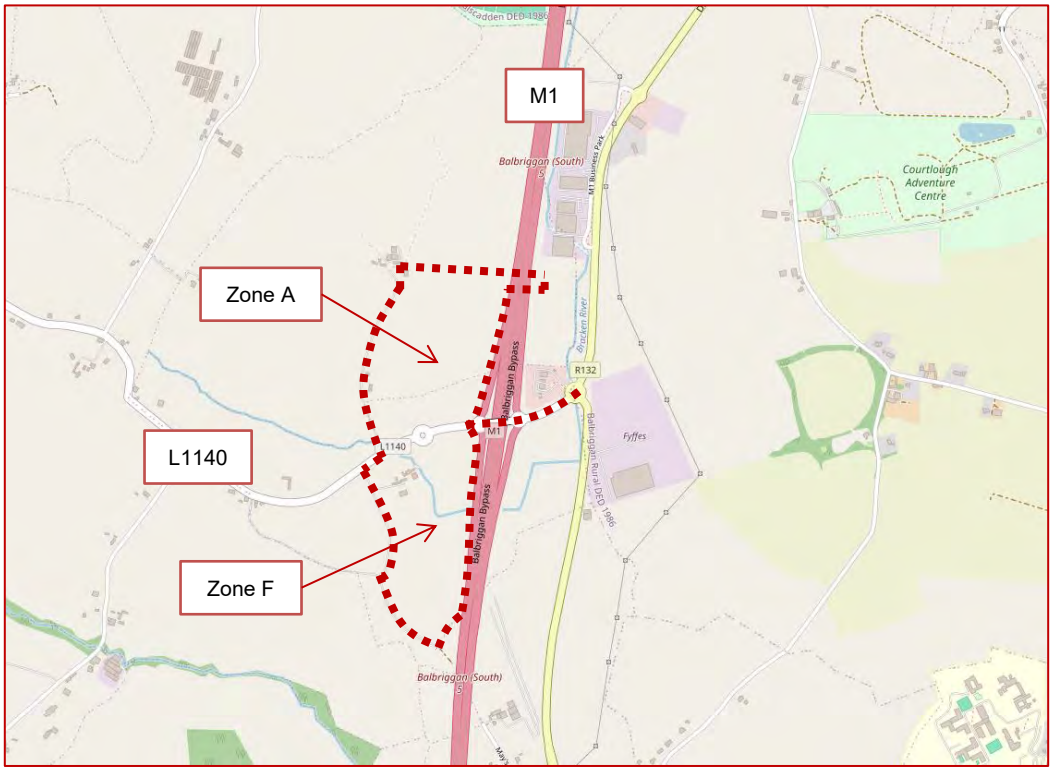


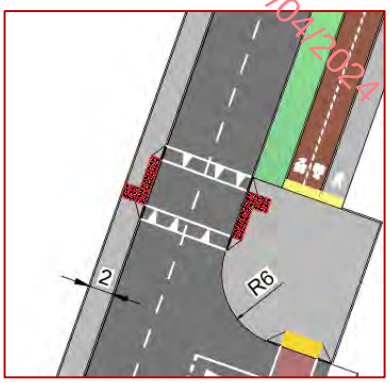
FIGURE 2.1: LOCATION PLAN (SOURCE: WWW.OPENSTREETMAP.ORG)

3 Items Arising from the Audit

3.1 Type of Controlled Crossings

Location: *General Problem*

Summary: *It is unclear what type of controlled crossings are proposed throughout the scheme.*



A number of controlled crossings have been indicated at various locations along the central north-south road within the proposed development. Red 'L-shaped' tactile paving has been provided at each of the crossings, however, it is unclear whether it is intended to provide signalised or Zebra crossings as no associated infrastructure, such as signal heads or Belisha beacons, or road markings, such as stop lines or Zebra crossing road markings, have been indicated at the crossings.

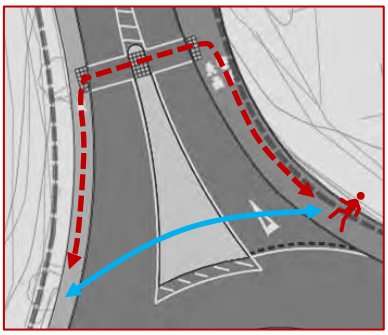
Recommendation

The type of controlled crossings to be provided should be clarified within the drawings with the necessary associated infrastructure and road markings indicated. Where signalised crossings are proposed, they should be Toucan crossings to facilitate the movement of cyclists.

3.2 Location of Pedestrian Crossings

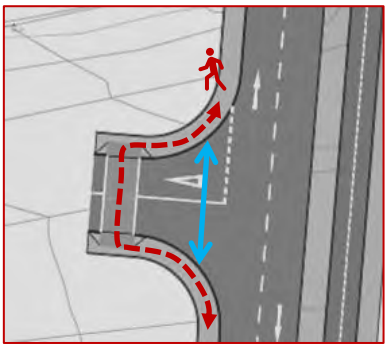
Location: *General Problem*

Summary: *A number of pedestrian crossings are set back from the likely pedestrian desire line.*



The proposed location of a number of pedestrian crossings are set back from, and would therefore not accommodate, the likely desire line for pedestrians.

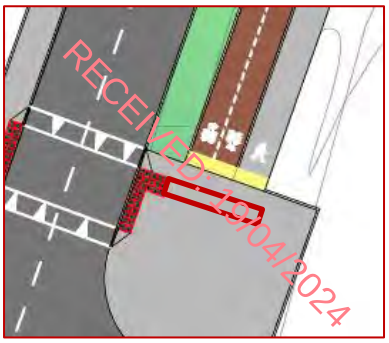
This could increase the risk of trips and falls as pedestrians attempt to dismount and mount full height kerbs on the shorter pedestrian desire line, leading to personal injury.

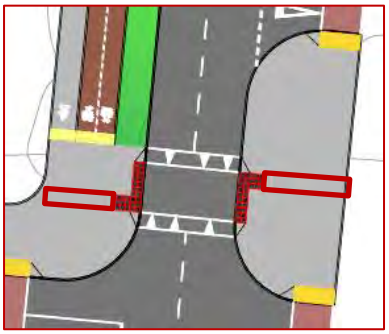


Recommendation

All crossing points should be located on the pedestrian desire line.

3.3 Tactile Paving Stem





Location: *General Problem*

Summary: *The length of the tactile paving stems at various locations within the scheme may result in visually-impaired pedestrians experiencing difficulties locating the pedestrian crossings.*

The tactile paving stems at various controlled pedestrian crossings within the scheme do not extend to the rear of the adjacent footpath.

This may result in difficulties for visually-impaired or partially-sighted pedestrians in detecting the crossing points, and increasing the difficulty experienced by these road users in independently navigating the proposed development.

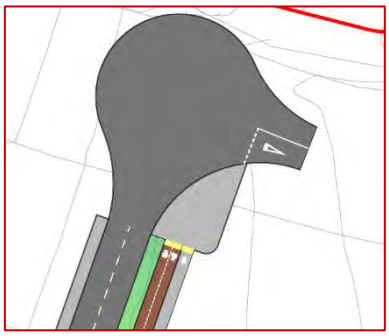
Recommendation

The tactile paving stem at controlled pedestrian crossings should extend to the rear of the adjacent footpath.

3.4 Junction Layout of Turning Heads

Location: *Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16001 (Rev. P01)*
Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16006 (Rev. P01)

Summary: *A lack of guidance at the proposed turning heads at the northern and southern extents of the central road may lead to inappropriate driver behaviour.*



Turning heads have been indicated at the northern and southern extents of the development's access road. The turning heads are shaped as a roundabout, however, no road markings or physical measures have been provided within them to guide vehicular movements through the junction. The layout of the junctions may therefore result in driver confusion and may encourage higher vehicle speeds when turning into/out of the junctions.

In addition, the layout of the junctions may result in informal parking taking place within the junction resulting in a risk of material damage collisions.

Recommendation

A roundabout junction should be provided at the northern and southern extents to formally control turning movements.

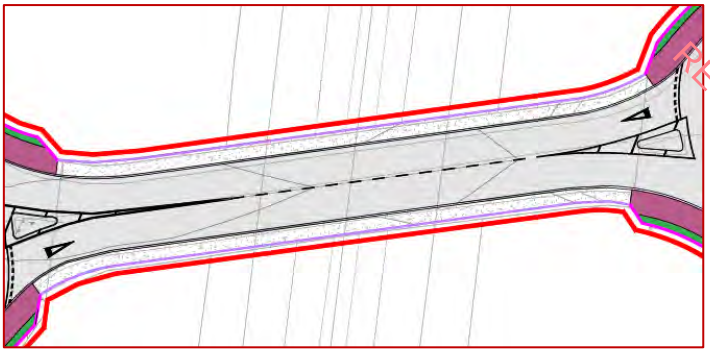
3.5 Connection between Shared Paths

Location: *Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16003 (Rev. P01)*

Summary: *The existing pedestrian footpath may not be wide enough to sufficiently accommodate pedestrians and cyclists, leading to a risk of NMU collisions adjacent a busy carriageway.*

A section of the existing footpath on both sides of the L1140 between the dumbbell roundabouts would be retained. It is proposed to provide a shared path on either side of the footpaths and, therefore, the footpaths would likely be used as a shared path in practice.

However, it appears that the existing footpaths would not be of a sufficient width to accommodate both pedestrians and cyclists safely. This may result in conflicts between NMUs as they attempt to share the footpath simultaneously, which is of particular concern as the footpaths are adjacent a high-speed carriageway.



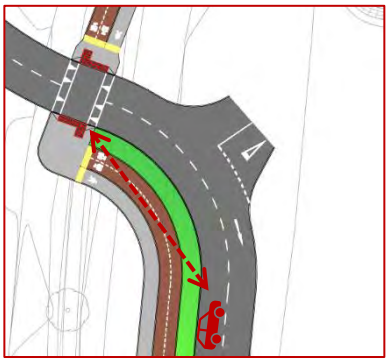
Recommendation

The existing footpath should be widened to provide a shared path at this location in accordance with the Cycle Design Manual.

3.6 Drivers Visibility Towards Signalised Crossings

Location: *Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16004 (Rev. P01)*
Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16005 (Rev. P01)

Summary: *The location of, assumed, signalised crossings may be such that approaching drivers have insufficient visibility towards the signal heads.*



Controlled crossings have indicated at various locations within the proposed development. A number of these crossings would be located adjacent a bend in the central road within Zone F of the development.

Should signalised crossings be provided at these locations, this may result in approaching drivers having insufficient forward visibility towards the signal heads and increase the risk of overshoot and rear end shunt collisions.

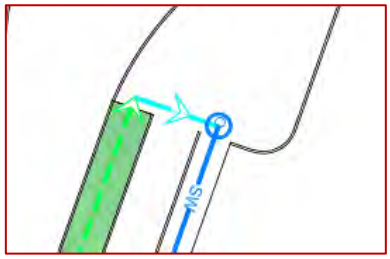
Recommendation

Where signalised crossings would be provided, sufficient forward visibility should be provided for approaching drivers.

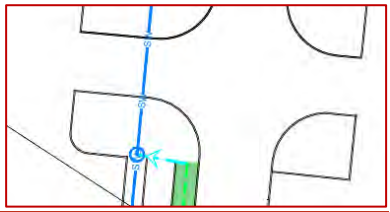
3.7 Manhole Covers Within Tactile Paving

Location: *Drawing No. 16_206A - CSE - GEN - XX - DR - C – 1701 (Rev. P01)*
Drawing No. 16_206A - CSE - GEN - XX - DR - C – 1704 (Rev. P01)

Summary: *Manhole covers have been indicated within 'Ladder' hazard tactile paving.*



Manholes have been indicated where they would lie within the 'Ladder' hazard tactile paving where the segregated footpath meets the shared path at the northern extents of the scheme and on at the southernmost side road junction on the western side of the central road.



This may compromise the tactile paving layout and could lead to visually-impaired pedestrians stepping over the tactile paving and, therefore, being insufficiently aware that they have entered a space shared with cyclists.

Recommendation

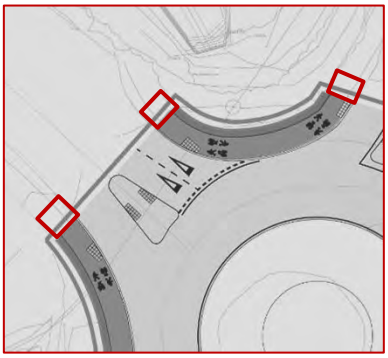
If possible, the utility chamber cover should be located outside of the tactile paving layout.

Where this is not possible, an inset chamber cover should be provided to permit continuation of the tactile paving layout at this location.

3.8 Tactile Paving at Shared Path Tie-in

Location: *Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16003 (Rev. P01)*

Summary: *The absence of hazard tactile paving where the proposed shared path ties into the existing footpath may result in visually-impaired pedestrians experiencing difficulties.*



The proposed shared path would tie-into the existing pedestrian footpath at the roundabout where the L1140 meets the R132. However, hazard tactile paving has not been indicated at these tie-in locations.

This may lead to visually-impaired pedestrians, particularly those entering the scheme, being insufficiently aware that they have entered a space shared with cyclists and increasing the risk of collisions between NMUs.

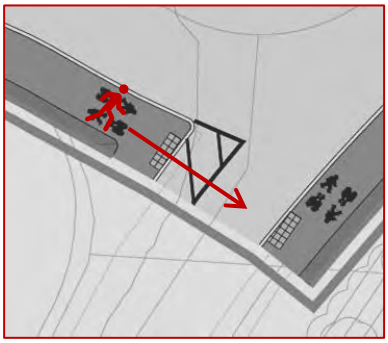
Recommendation

Hazard tactile paving should be provided where the proposed shared path would tie-into an existing pedestrian footpath.

3.9 Depth of Tactile Paving

Location: *Drawing No. 16_206A - CSE - GEN - XX - DR - C – 16003 (Rev. P01)*

Summary: *Tactile paving at all in-line uncontrolled pedestrian crossings within the development is not of the required depth.*



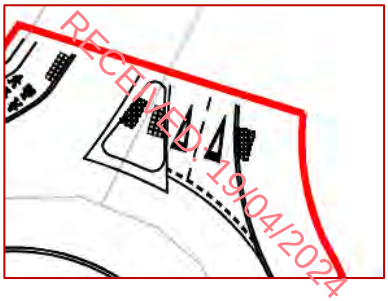
An in-line uncontrolled pedestrian is indicated across the on-slip lane at the eastern dumbbell roundabout. The tactile paving layout at this crossing would not meet the required depth of 1.2m across the full width of the crossing.

If tactile paving at the in-line crossings is not of a sufficient depth there is a risk that a visually-impaired pedestrian may step over the tactile paving and inadvertently enter the carriageway where they are at an increased risk of being struck by a vehicle.

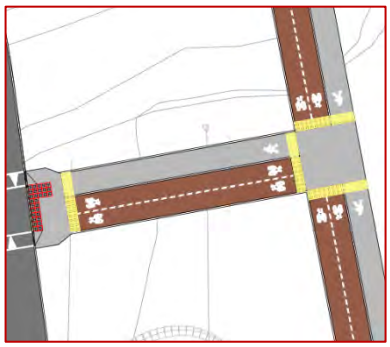
Recommendation

Tactile paving at in-line crossings (i.e. crossings that are in the direction of travel) should be a minimum of 1.2m (or three paving slabs) deep, while tactile paving at inset crossings (crossings that are at 90 degrees to the direction of travel) should be a minimum of 0.8m (or two paving slabs) deep.

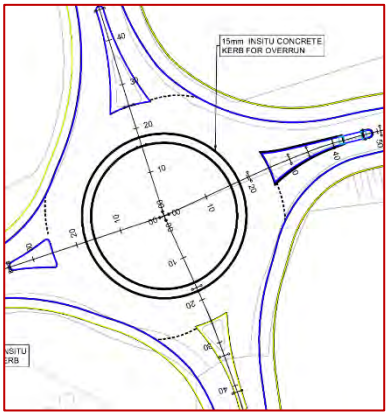
4 Observations



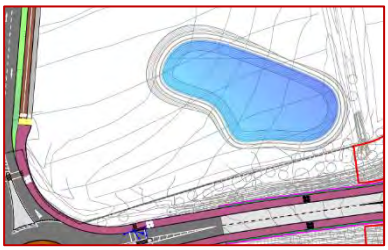
4.1 At the northeastern roundabout, where the R132 meets the roundabout on its northeastern arm, the carriageway flares to provide two entry lanes. However, the outside lane does not appear to be sufficiently wide enough to accommodate a vehicle. The layout of this entry arm should be revised to ensure that it can safely accommodate two vehicles side by side (e.g. the existing layout).



4.2 A short, segregated, footpath and cycle track is proposed on the eastern side of the central road, through Zone F of the development, which would connect the north-south segregated footpath and cycle track to a crossing at the central road. The provision of a short, segregated, link at this location may increase the risk of collisions between pedestrians and cyclists. The route for NMUs travelling between the crossing and the eastern segregated footpath and cycle track should be simplified (e.g. provide a shared path) to reduce the risk of conflicts.



4.3 Kerbs with an upstand of 150mm have been indicated across the pedestrian crossings on each arm of the roundabout which connects the L1140 to the development. The absence of dropped kerbs at pedestrian crossings may lead to NMUs, particularly the mobility-impaired, experiencing difficulties as they attempt to cross the road. Dropped kerbs with a maximum upstand of 6mm should be provided at all crossing locations.



4.4 No access route has been indicated to service the proposed attenuation pond. The absence of an appropriate route to/from the attenuation pond may result in difficulties when the pond is serviced. A route should be provided to allow service vehicles to travel to/from the attenuation pond.

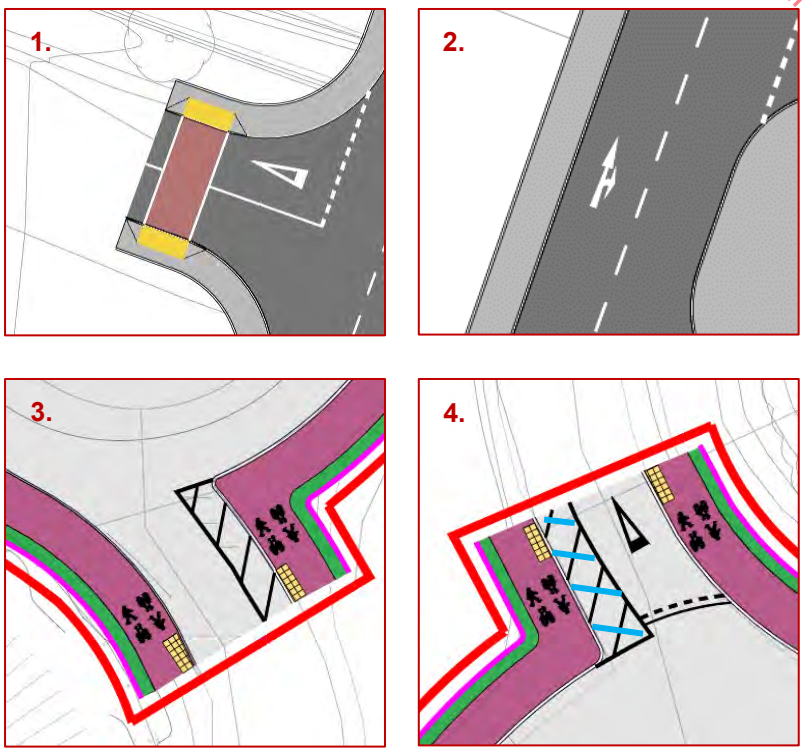
4.5 Insufficient, or incorrect, road markings have been indicated at a number of locations including:

1. At the uncontrolled pedestrian crossings across side roads, where it is unclear if it is proposed to provide continuous white lines on either side of the crossing or surfacing within the crossing. No road markings or surfacing should be provided at the uncontrolled crossings.

2. Within the northern central road, where a straight ahead and right turn arrow has been indicated upstream of a side road junction. This is unnecessary and should be replaced with a straight-ahead arrow road marking.

3. At the western dumbbell roundabout, where the off-slip lane meets the roundabout 'Yield' road markings have not been indicated. A Yield symbol and road markings should be provided at this location.

4. At the western and eastern dumbbell roundabouts, where the hatching road markings indicated at the off-slip lanes are incorrectly orientated. The hatching road markings should be provided at the correct orientation in accordance with the Traffic Signs Manual.



5 Audit Team Statement

We certify that we have examined the drawings referred to in this report. The examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme.

The problems identified have been noted in this report together with associated safety improvement suggestions, which we would recommend should be studied for implementation.

No one on the Road Safety Audit Team has been involved with the design of the scheme.

ROAD SAFETY AUDIT TEAM LEADER

Aly Gleeson Signed: 

Dated: 12th March 2024

ROAD SAFETY AUDIT TEAM MEMBER

Rebecca Farnan Signed: Rebecca Farnan

Dated: 12th March 2024

OTHERS INVOLVED

Xue Yan (Trainee Observer)

6 Road Safety Audit Feedback Form

Road Safety Audit Feedback Form

Scheme: M1 Business Park Zone A & F Development Road

Route No.: M1 Overbridge, the L1140 and the R132

Audit Stage: 1 **Date Audit Completed:** 1st March 2024

	To be Completed by Designer			To be Completed by Audit Team Leader
Paragraph No. in Safety Audit Report	**Problem Accepted (Yes/No)**	**Recommended Measure(s) Accepted (Yes/No)**	**Describe Alternative Measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted**	**Alternative Measures or Reasons Accepted by Auditors (Yes/No)**
3.1	Yes	No	All internal pedestrian crossings to be uncontrolled. L-shape tactile in business park removed. Only one Toucan crossing located on L1140. Tactile paving at the uncontrolled crossings shall be buff in colour.	Yes
3.2	Yes	Yes		
3.3	Yes	No	Tactile stems of L-shape removed as highlighted in 3.1 above.	Yes
3.4	Yes	Yes		
3.5	No	No	Sufficient width is not available in roadway to increase width of concrete path. Bridge is a complicated and expensive structure to widen and is deemed not feasible for the expected number of users. Tactile paving and Cyclist dismount signage to be installed before bridge crossing.	Yes
3.6	No	No	Vertical alignment is flat, landscaping would be reviewed not to impact on visibility and internal speed limit set to 30km/h.	Yes
3.7	Yes	Yes		
3.8	Yes	Yes		
3.9	Yes	Yes		

Signed: Laura Pearce Designer **Date** 07/03/2024

Signed: Audit Team Leader **Date** 12/03/2024

Signed: Employer **Date** 08/03/2024

Appendix A - Documents Submitted to the Road Safety Audit Team

DOCUMENT/DRAWING TITLE	DOCUMENT/DRAWING NO.	REVISION
Proposed Layout Overall	16_206A - CSE - GEN - XX - DR - C - 1600	P01
Proposed Layout Sheet 01 of 06	16_206A - CSE - GEN - XX - DR - C – 1601	P01
Proposed Layout Sheet 02 of 06	16_206A - CSE - GEN - XX - DR - C – 1602	P01
Proposed Layout Sheet 03 of 06	16_206A - CSE - GEN - XX - DR - C – 1603	P01
Proposed Layout Sheet 04 of 06	16_206A - CSE - GEN - XX - DR - C – 1604	P01
Proposed Layout Sheet 05 of 06	16_206A - CSE - GEN - XX - DR - C - 1605	P01
Proposed Layout Sheet 06 of 06	16_206A - CSE - GEN - XX - DR - C - 1606	P01
Proposed Internal Road Layout Overall	16_206A - CSE - GEN - XX - DR - C - 1610	P01
Proposed Internal Road Layout Sheet 01 of 05	16_206A - CSE - GEN - XX - DR - C – 1611	P01
Proposed Internal Road Layout Sheet 02 of 05	16_206A - CSE - GEN - XX - DR - C – 1612	P01
Proposed Internal Road Layout Sheet 03 of 05	16_206A - CSE - GEN - XX - DR - C – 1613	P01
Proposed Internal Road Layout Sheet 04 of 05	16_206A - CSE - GEN - XX - DR - C – 1614	P01
Proposed Internal Road Layout Sheet 05 of 05	16_206A - CSE - GEN - XX - DR - C - 1615	P01
Proposed Overall Pedestrian & Cycle Links	16_206A - CSE - GEN - XX - DR - C - 1625	P01
Proposed Pedestrian & Cycle Links Sheet 01 of 03	16_206A - CSE - GEN - XX - DR - C – 1626	P01
Proposed Pedestrian & Cycle Links Sheet 02 of 03	16_206A - CSE - GEN - XX - DR - C – 1627	P01
Proposed Pedestrian & Cycle Links Sheet 03 of 03	16_206A - CSE - GEN - XX - DR - C – 1628	P01
Sightline Proposed Roundabout	16_206A - CSE - GEN - XX - DR - C - 1665	P01
Sightline Proposed Roundabout Sheet 02 of 02	16_206A - CSE - GEN - XX - DR - C - 1666	P01
Swept Path Analysis Sheet 01 of 03	16_206A - CSE - GEN - XX - DR - C - 1675	P01
Swept Path Analysis Sheet 02 of 03	16_206A - CSE - GEN - XX - DR - C – 1676	P01
Swept Path Analysis Sheet 03 of 03	16_206A - CSE - GEN - XX - DR - C - 1677	P01
Proposed Surface Water Layout Overall	16_206A - CSE - GEN - XX - DR - C - 1700	P01
Proposed Surface Water Layout Sheet 1 of 5	16_206A - CSE - GEN - XX - DR - C - 1701	P01
Proposed Surface Water Layout Sheet 2 of 5	16_206A - CSE - GEN - XX - DR - C – 1702	P01
Proposed Surface Water Layout Sheet 3 of 5	16_206A - CSE - GEN - XX - DR - C – 1703	P01
Proposed Surface Water Layout Sheet 4 of 5	16_206A - CSE - GEN - XX - DR - C – 1704	P01
Proposed Surface Water Layout Sheet 5 of 5	16_206A - CSE - GEN - XX - DR - C - 1705	P01
Kerbs and Edging Layout Overall	16_206A - CSE - GEN - XX - DR - C - 1850	P01
Kerbs and Edging Layout Sheet 1 of 6	16_206A - CSE - GEN - XX - DR - C - 1851	P01
Kerbs and Edging Layout Sheet 2 of 6	16_206A - CSE - GEN - XX - DR - C – 1852	P01
Kerbs and Edging Layout Sheet 3 of 6	16_206A - CSE - GEN - XX - DR - C – 1853	P01
Kerbs and Edging Layout Sheet 4 of 6	16_206A - CSE - GEN - XX - DR - C – 1854	P01
Kerbs and Edging Layout Sheet 5 of 6	16_206A - CSE - GEN - XX - DR - C – 1855	P01
Kerbs and Edging Layout Sheet 6 of 6	16_206A - CSE - GEN - XX - DR - C - 1856	P01
Road Markings Overall	16_206A - CSE - GEN - XX - DR - C - 1870	P01
Road Markings Sheet 1 of 6	16_206A - CSE - GEN - XX - DR - C - 1871	P01
Road Markings Sheet 2 of 6	16_206A - CSE - GEN - XX - DR - C – 1872	P01
Road Markings Sheet 3 of 6	16_206A - CSE - GEN - XX - DR - C – 1873	P01
Road Markings Sheet 4 of 6	16_206A - CSE - GEN - XX - DR - C – 1874	P01
Road Markings Sheet 5 of 6	16_206A - CSE - GEN - XX - DR - C – 1875	P01
Road Markings Sheet 6 of 6	16_206A - CSE - GEN - XX - DR - C - 1876	P01

Appendix B – Problem Locations

General Problems
3.1, 3.2, & 3.3

Problem 3.4

Problem 3.7

Problem 3.8

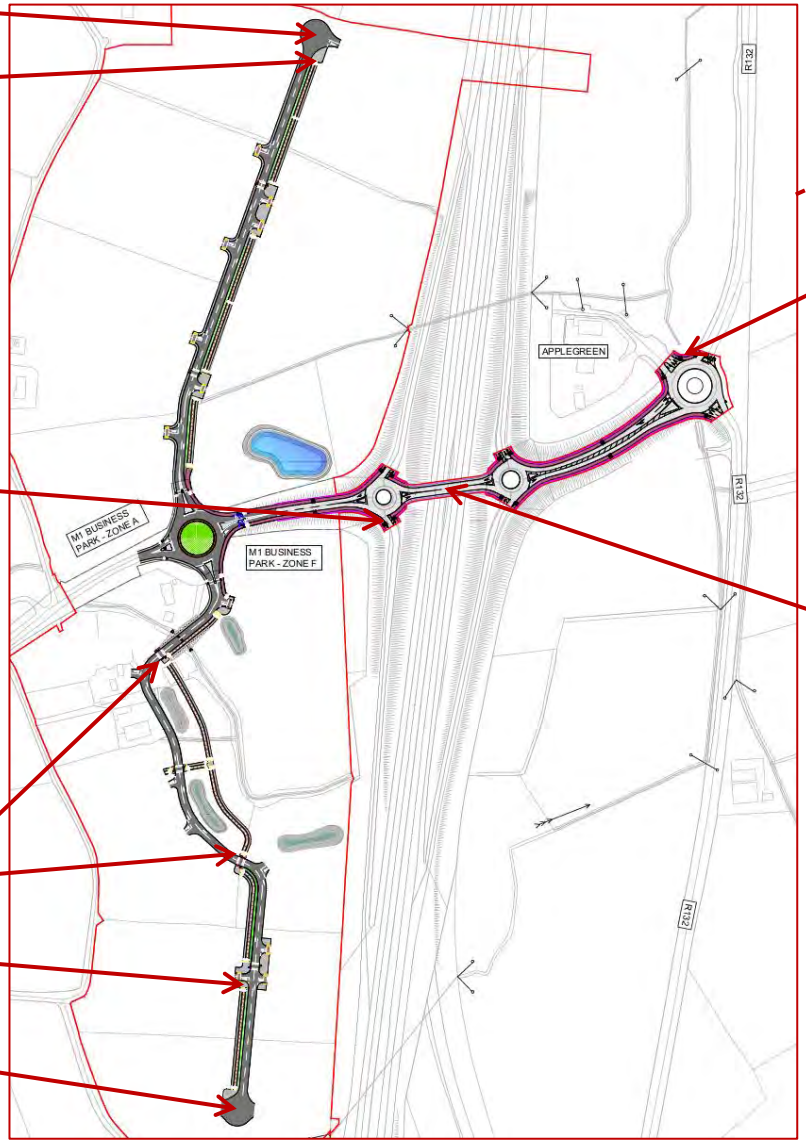
Problem 3.9

Problem 3.5

Problem 3.6

Problem 3.7

Problem 3.4



Appendix 14. Archaeology, Cultural Heritage and Architectural Heritage

Appendix: 14-1

Monuments Listed in the Record of Monuments and Places

DU004-016--- Balrickard Ringfort - unclassified

Located on a slight rise under pasture beside townland boundary. Historic 6 inch map show quarry in the same field. An aerial photograph taken in 1972 (FSI 4.510/509) shows a circular cropmark (diam. c. 22m) of a levelled enclosure. Not visible at ground level.

DU004-017--- Rowans Big Ringfort - unclassified

Situated on a gentle E-facing slope under tillage west of the M1. An aerial photograph taken in 1972 (FSI 4.507/8) shows a roughly circular cropmark (diam. c. 20m) of an enclosure with an opening in the SW quadrant. Not visible at ground level.

DU004-026--- Rowans Little Enclosure

An aerial photograph taken in 1972 (FSI 50819) shows a roughly circular cropmark of an enclosure (diam. c. 40m). Located in a sloping field of pasture S of a stream. Not visible at ground level.

DU005-034--- Jordanstown Earthwork

Named 'Moat' on Duncan's map (1821). Situated on the crest of a low hill under tillage. Not visible at ground level.

DU005-041--- Courtlough Cist

A cist (Grave 1) was discovered in 1939 on a broad hilltop at Courtlough. It contained a simple bowl Food vessel. The capstone of the cist (dims. 1m E-W; 0.7m N-S; H 1.1m) was of megalithic proportions and lay only a few centimetres below ground level. The hill is known locally as the 'Moat hill' but there was no earthwork present at the time of discovery (Morris 1939, 117). The cist was rectangular in plan, with its long axis aligned NNE-SSW (Int dims L 0.89m. Wth 0.55m). It was formed of four main slabs set on edge. The N end slab bore decoration in the form of 'a picked -out basin' on its upright end and incised parallel lines on its side. Further stones were laid on top of the main slabs in the SW corner so the capstone would rest level on them. The floor of the cist was formed of clay . A simple bowl had been placed in the NE corner. Follow-up excavations by Mr Kilbride Jones revealed a pit-burial (Grave 2) just E of the cist(Du005-079---). Further deposits of cremated bone were found to the E and W of the cist.

The site is located on a high ridge with extensive views north. In the southern field boundary is what appears as a standing stone c.1.5m h and 1m at base. It is an upended cist stone. According to notes dated 06/05/1939 the capstone was removed by Mr Monk 'The side stones of the cist now rest on a top pf the hill at the trees' NMI Topographical Files).

Appendix: 14-2

Monuments Listed in the Sites and Monument Record

DU004-048--- Courtlough Burnt pit

Topsoil monitoring in 2003 revealed a series of pits and post-holes on the N side of a relatively low glacial ridge near low-lying wetland. Follow up excavations in 2003 exposed a shallow depression filled with heat shattered stones which was cut into by an oblong pit. The only find from the site was a small piece of flint debitage and a small fragment of burnt bone.

DU004-062--- Nevitt Enclosure

A sub-circular enclosure visible as a crop mark on an aerial photograph. A circular enclosure occurs in the same field to the west (DU004-063----) (SMR file; pers. comm. T. Condit). This site was subject to geophysical survey (05R062) and test excavation (05E1063) which revealed a series of pits and ditches within an enclosing ditch, truncated by intensive agriculture (Lohan , 2005). No visible remains.

DU004-063--- Nevitt Enclosure

A circular enclosure visible as a crop mark on an aerial photograph. A sub-circular enclosure occurs in the same field to the east (DU004-062----) (SMR file; pers. comm. T. Condit). Located on west facing slope in a gently undulating landscape. This site was subject to investigation but was not picked up by geophysical survey (Lohan 2005) that confirmed DU004-062.

DU004-069--- Walshestown Enclosure

A series of irregular shaped enclosures attached to one another visible as a crop mark on an aerial photograph (SMR file; pers. comm. T. Condit). This site was subject to geophysical survey (05R062) which identified extensive remains 60m EW x 130m NS. Site is located on a natural rise in a sheltered position adjacent to a river to the south. No visible remains.

DU004-070--- Walshestown Enclosure

A double-ring circular enclosure visible as a crop mark on an aerial photograph (SMR file; pers. comm. T. Condit). This site is within a south-west sloping field with extensive views over the plains of Fingal to the Dublin mountains.

DU004-072--- Nevitt Habitation site

Geophysical survey (Licence no. 05R062) in advance of a proposed landfill identified rectilinear anomalies. Test excavation (Licence no. 05E1063) confirmed the presence of a rectilinear enclosure bisected by a drainage ditch. Domestic waste recovered from the trenches, such as disarticulated animal bone suggest a settlement site, but no datable evidence was retrieved (Lohan 2006, 25).

DU004-073--- Nevitt Enclosure

Geophysical survey (Licence no. 05R062) in advance of a proposed landfill identified a circular enclosure. Test excavation (Licence no. 05E1063) confirmed the presence of a sub-circular enclosure (33m diam.) There are a number of internal features suggestive of dwellings. Animal bone and burnt material was recovered from the ditch (1.1m depth) but no datable material (Lohan 2006, 24). Situated on the northern slope of an east-west ridge.

DU004-090--- Walshestown Enclosure

Circular-shaped cropmark (diam. c. 25m) visible on Google Earth orthoimage taken 21/07/2021.

DU005-079---- Courtlough Pit-burial

Excavations by Mr Kilbride Jones revealed a pit-burial (Grave 2) just E of a cist (DU005-041----). The pit was roughly oval in plan (L 0.67m, Wth 0.43m). There was no evidence for structural stones. It contained a cremation of one adult and one adolescent and a fragmentary Ribbed bowl (Cahill & Sikora 2011,170).

DU005-182---- Courtlough Ring-ditch

Located in the NE corner of a large arable field, c. 210m SE of cist and pit burials (DU005-079----), cropmarks indicate the presence of a subsurface bivallate ring-ditch. The ring-ditch, clearly visible on Google Earth imagery (7 May 2017), comprises an outer concentric ditch (ext. diam. c. 30.8m); Wth c. 2m) and inner ditch (ext. diam. c. 16.7m; Wth c. 2m). There are no obvious gaps across the ditches.

DU005-212---- Courtlough earthwork

In tillage field. Circular-shaped cropmark visible on Apple Maps orthoimage.

DU005-213---- Jordanstown Earthwork

In tillage field. Circular-shaped cropmark (diam. c. 28m) visible on Apple Maps orthoimage and on Digital Globe orthoimage taken between 2011-13.

DU005-214---- Jordanstown Earthwork

In tillage field. Partial rectangular-shaped cropmark (dims. c. 26m N-S) visible on Apple Maps orthoimage and faint outline visible on Digital Globe orthoimage taken between 2011-13.

DU008-062--- Jordanstown Fulacht fia

During topsoil removal for a Gas Pipeline in 2002 an irregular shaped spread of firing material was identified. This was sub-circular in shape (L1.4m, Wth 1.2m). It is located in rolling landscape which slopes to the E alongside a stream. S of the spread a sub-circular trough (L1.26m, Wth 1.12m, D 0.39m)was revealed. It has steep sides and a shallow, almost flat base.

DU008-092--- Jordanstown Fulacht fia

During topsoil removal for a Gas Pipeline in 2002 an irregular shaped spread of firing material was identified. This was sub-circular in shape (L1.4m, Wth 1.2m). It is located in rolling landscape which slopes to the E alongside a stream. S of the spread a sub-circular trough (L1.26m, Wth 1.12m, D 0.39m)was revealed. It has steep sides and a shallow, almost flat base.