Traffic and Transport Assessment and Mobility Management Plan for Proposed Residential Development at Gortnahomna More, Castlemartyr, Co. Cork

For Marshall Yards Development Company Limited



TRANSPORT INSIGHTS

Final Report

November 2024

Document Control

Contract Name	DOBA MYDC Castlemartyr LRD Transport Support
Contract Number	C1091 2024
Document Type	Report
Document Status	Final
Primary Author(s)	Narendra Jillelamudi
Other Author(s)	Jurek Gozdek
Reviewer(s)	Eoin Munn (EM)

Document Review

Item No.	Item Description	Reviewer Initials	Review Date
1	Working draft report v1.1	EM	26/07/2024
2	Working draft report v1.5	EM	06/08/2024
3	Final report v1.6	EM	11/11/2024
4			
5			
6			
7			
8			
9			
10			

Distribution

Item No.	Item Description	Approvers Initials	Date
1	Working draft report v1.2	EM	26/07/2024
2	Working draft report v1.3	EM	29/07/2024
3	Working draft report v1.5	EM	06/08/2024
4	Final report v1.6	EM	11/11/2024
5			
6			
6			

Table of Contents

1. Introduction 4
1.1. Overview 4
1.2. Site Location and Overview of Proposed Development 4
1.3. Recent Site Planning History 5
1.4. Section 247 Meeting 6
1.5. Section 32B LRD Opinion Meeting 6
1.6. TTA Approach 6
1.7. Report Structure 6

2. Key Policy Review 8
2.1. Introduction 8
2.2. National Guidance 8
2.3. Regional and Local Policy 10

3. Site Context 14
3.1. Introduction 14
3.2. Site Location and Access 14
3.3. Local Road Network 14
3.4. Traffic Survey Data Collection and Analysis 15
3.5. Public Transport 17
3.6. Walking and Cycling Accessibility 18
3.7. Current Resident Modal Split Patterns 20

4. Description of Proposed Development 23
4.1 Introduction 23
4.2 Proposed Development 23
4.3 Proposed Site Access/ Egress and Layout Arrangements 23
4.4 Parking Arrangements 28
4.5 Stage 1 Road Safety Audit 29

5. Traffic Growth Forecasting, Trip Generation and Assignment 30
5.1 Introduction 30
5.2 Background Traffic Growth Forecasting 30
5.3 Preliminary Traffic Impact Forecasting Approach 31
5.4 Proposed Development Traffic Forecasting 32
5.5 Do-Something Scenario 33
5.6 Proposed Development's Traffic Impact 34

6. Traffic Modelling Approach and Outputs 37
6.1. Introduction 37
6.2. Traffic Modelling Approach and Scope 37
6.3. Traffic Modelling Outputs for N25/R632/Mogeely Road junction 38
6.4. Traffic Modelling Outputs for N25/ Application Site Access Road Junction 40

7. Framework Residential Mobility Management Plan 41
7.1 Introduction 41
7.2 MMP Status 41

7.3 MMP Objectives 41
7.4 MMP Mode Share Targets 41
7.5 Residential Travel Action Plan 42
7.6 Monitoring and Update Strategy 44

8. Summary and Conclusion 46

8.1 Summary 46
8.2 Overall Conclusions 48

Appendices

Appendix A Transport Briefing Note

Appendix B Traffic Survey Data

Appendix C TRICS Unit Trip Generation Rates

Appendix D Traffic Modelling Outputs

1. Introduction

1.1. Overview

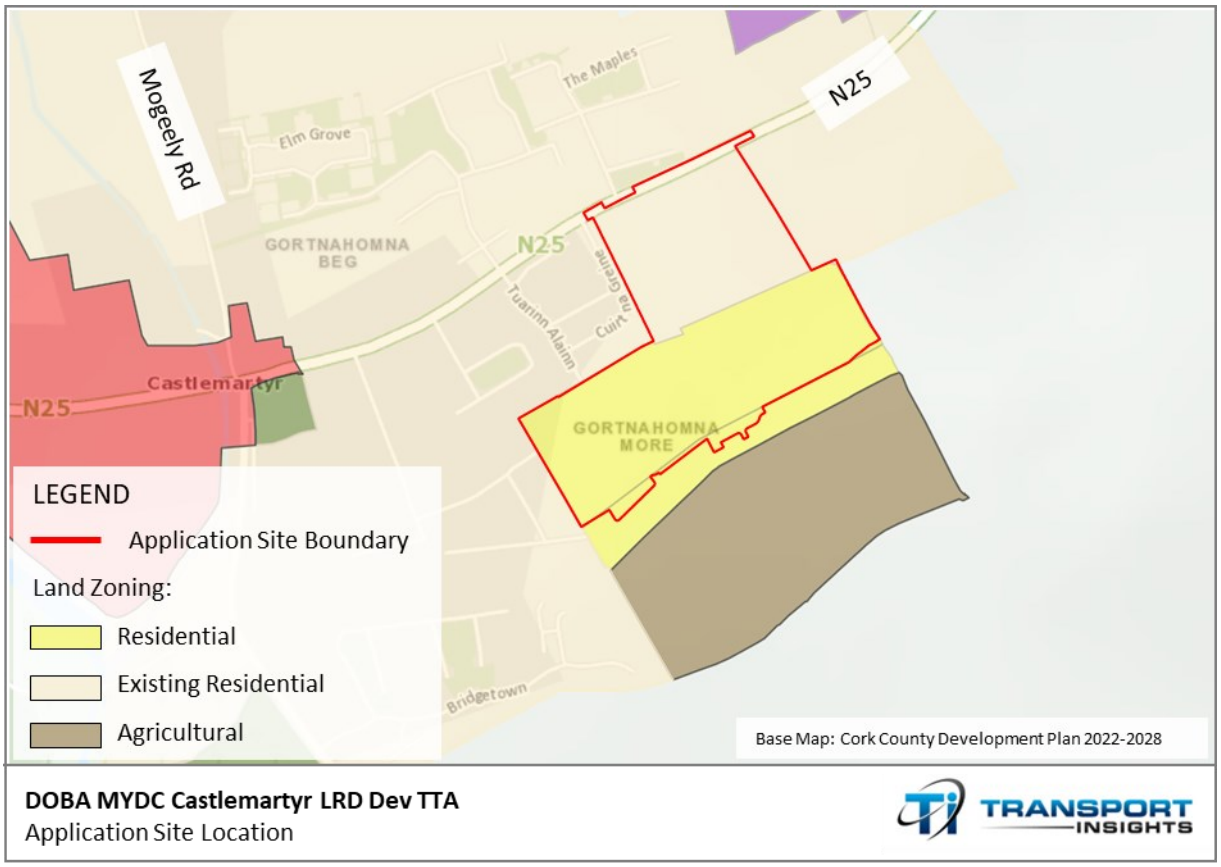
Transport Insights (TI) has been appointed by Marshall Yards Development Company Limited (MYDC) to provide traffic and transport consultancy support in relation to a proposed Large-scale Residential Development (LRD) on lands at Gortnahomna More, Castlemartyr, Co. Cork. The proposed development has also been referred to herein as the Gortnahomna LRD.

1.2. Site Location and Overview of Proposed Development

Site Location

The application site is located in the eastern part of Castlemartyr, Co. Cork and is part of the lands collectively known as Gortnahomna More. The extent of the subject lands and the applicable land use zonings are presented in Figure 1.1, which follows.

Figure 1.1 Development Site Location



The application site has a total area of ca. 6.88 ha and, as can be seen in the preceding figure, it includes lands zoned Residential and Existing Residential according to the *Cork County Development Plan* 2022-2028. The developable area of the site is ca. 4.0 ha. The subject lands are bounded by the N25 in the north, existing residential development in the west, and agricultural lands in the east and south. The

site's red line boundary is noted to include a section of the N25 along the site's northern boundary, which is to accommodate the necessary enabling works (are also a part of this application).

Overview of Proposed Development

The proposed Gortnahomna LRD is to comprise of 150 no. residential units consisting of:

- 60 no. 2-bed houses;
- 82 no. 3-bed houses; and
- 8 no. 4-bed houses.

The proposed residential units will be accompanied by associated pedestrian and cycle infrastructure, roads and parking facilities (provided in accordance with appropriate Development Plan standards), in addition to a crèche. A more detailed description of the proposed development, including the proposed site layout and access arrangements is provided within Section 4 of this Report.

The development shall also include the creation of an access junction off the N25, comprising the widening of the road carriageway to accommodate a right-turning lane for movements from the west (i.e. from the direction of Cork City) into the development.

1.3. Recent Site Planning History

2017 Planning Application (CCC Reg. Ref. 174624)

A planning application for development of the Gortnahomna More site was submitted to Cork County Council in April 2017 by Solas Partnership (Reg. Ref. 174624). The proposed development included 209 no. dwellings in the form of terraced, semi-detached and detached houses, in addition to ancillary crèche and 2 no. office units. The application was refused on the grounds related to deficiencies in the capacity of the wastewater treatment facilities and public water supply.

While the reasons for refusal of the above application were unrelated to transport, CCC Traffic and Transport Department and Transport Infrastructure Ireland (TII) correspondence, in addition to the Further Information Request issued in relation to that development have been reviewed. Based on the review, the following key items of consideration have emerged:

- Access junction off the N25 arrangement, with the junction required to be DMURS compliant, provided with a right-turn lane in agreement with TII, and subject to a Stage 1 Road Safety Audit (RSA).
- Continuous lighted footpaths to be provided connecting the development to the village core; and
- The development's impact on the 4-arm, signalised N25/ R632 Junction to be examined in detail.

The transport-related design and assessment activities in relation to the current proposed Gortnahomna LRD shall take cognisance of the above items.

1.4. Section 247 Meeting

A Section 247 meeting with Cork County Council (CCC) took place on 23 May 2024. This meeting included attendance by representatives of CCC's Roads Department as well as Transport Insights (TI). It was noted that TI were advised to scope the traffic and transport assessment approach with the Cork National Roads Office (NRO). TI subsequently approached Cork NRO office and submitted a Transport Briefing Note (included at Appendix A) to them, however Cork NRO recommended that a pre-planning request was submitted directly to Transport infrastructure Ireland (TII). Following submission of this request to TII, TII replied to indicate that pre-planning support is to be facilitated by CCC, with TII fulfilling their role as statutory consultee in relation to the application.

1.5. Section 32B LRD Opinion Meeting

A Section 32B meeting with Cork County Council (CCC) took place on 28 August 2024 and was succeeded by issue by CCC of a written Section 32D LRD Opinion on 24 September 2024. The LRD Opinion was informed, among others, by a working draft Traffic and Transport Assessment and Mobility Management Plan Report prepared by Transport Insights – the current report represents its revised and updated version.

No specific roads and transport issues were raised during the Section 32B meeting or in the LRD Opinion. The LRD Opinion notes that the documents submitted with the planning application should include a final version of the TTA & MMP Report, a DMURS

Statement of Compliance, and design rationale and Road Safety Assessment/ Audit of proposed site access junction off the N25. The requested documentation is duly included in the current application package.

1.6. TTA Approach

The TTA set out in this Report has been undertaken in accordance with national best practice Transport Infrastructure Ireland's *Traffic and Transport Assessment Guidelines* (May 2014). The study area has included the section of the N25 (Killeagh Road) extending from the proposed three-arm priority-controlled site access junction and the existing N25/R632/Mogeely Road Junction ca. 500 metres to the west. Thus, the defined study area includes the part of the road network directly receiving the traffic generated by the proposed development, which will subsequently distribute to other parts of the wider road network. Such definition of the study area is aligned with best practice.

1.7. Report Structure

The remainder of this Report is structured as follows:

- **Chapter 2** provides an overview of the relevant local, regional and national policy;

- **Chapter 3** describes the proposed development's receiving environment, including the adjacent road network and traffic volumes thereon;
- **Chapter 4** describes key transport related characteristics of the development proposal;
- **Chapter 5** details the traffic growth forecasting, trip generation and assignment approach and outputs;
- **Chapter 6** provides traffic modelling approach and outputs;
- **Chapter 7** sets out the Framework Mobility Management Plan; and
- **Chapter 8** provides an overall summary and conclusion to the TTA.

2. Key Policy Review

2.1. Introduction

This section of the Report provides an overview of national, regional, and local planning, policy and guidance deemed relevant to the proposed development and its assessment.

2.2. National Guidance

Traffic and Transport Assessment Guidelines (2014)

Transport Infrastructure Ireland's (TII's) *Traffic and Transport Assessment* (*TTA*) *Guidelines* May 2014 provides guidelines for best practice in relation to the preparation of a Transport Assessment.

In relation to scoping, the guidance 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 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."*

Design Manual for Urban Roads and Streets (DMURS)

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. It provides comprehensive guidance on the design of urban roads and streets. Following issue of Circular RW 6/ 2013 by the Department of Transport Tourism and Sport: *"The design Manual for Urban Roads and Streets (DMURS) is now mandatory for all Local Authorities with effect from the date of this Circular, 28th March 2013, for all urban roads and streets within the 60 km/ h urban speed limit zone…"*

DMURS provides clear guidance in relation to all aspects of road and street design, including carriageway and footpath widths, corner radii, stopping sight distances and sightlines, car parking dimensions and layouts etc. *DMURS* guidance has underpinned key aspects of the current proposed development's design activities, namely its site access junction and internal site layout. The sections of the N25 Cork Road immediately adjacent to the application site boundary have a speed limit of 50 km/ h in place and, as such, *DMURS* represents the applicable design guidance for the development proposal and related access and road improvement works.

A DMURS Compliance Statement is included in the current application package.

Sustainable Residential Developments and Compact Settlements

The *Sustainable Residential Developments and Compact Settlements, Guidelines for Planning Authorities* (hereafter referred to as Compact Settlements Guidelines) was published in January 2024 to "*set out policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements*". The Compact Settlements Guidelines is a statutory document augmenting other relevant guidance documents under Section 28 of the Planning and Development Act 2000, including the Housing Guidelines, as well as the DMURS.

The Compact Settlements Guidelines concerns a variety of development aspects, including density, placemaking, and technical standards. A variety of settlements, area types and associated density ranges have been identified. Among settlement categories, Castlemartyr falls under the Small and Medium Sized Towns (1,500-5,000 population) class. The application site falls under Peripheral locations class, as it does not meet the proximity and accessibility criteria for other location classes (i.e. is not located within a catchment of frequent public transport services, as defined in the Guidelines).

Cycle Parking

With regards to cycle parking, the Specific Planning Policy Requirement (SPPR) 4 included in the Guidelines sets out quantitative and qualitative requirements. In particular, for "residential units that do not have ground level open space or have smaller terraces, a general minimum standard of 1 cycle storage space per bedroom should be applied", in addition to visitor cycle parking. Cycle parking facilities should be accessible, safe and secure. In the case of the proposed development, 2 no. cycle spaces within a secure enclosure will be provided for each residential unit without a private open space with external access. Details of cycle parking provision are set out in Section 4.4.

Car Parking

According to the Specific Planning Policy Requirement (SPPR) 3 enshrined in the Guidelines, "in intermediate and peripheral locations, the maximum rate of car parking provision for residential

development, where such provision is justified to the satisfaction of the planning authority, shall be 2 no. spaces per dwelling". The prescribed maximum is noted to exclude "bays assigned for use by a car club, designated short stay on-street electric vehicle (EV) charging stations or accessible parking spaces", however it includes provision for visitor parking. Considering the above requirements, and given that no minimum provision standard has been defined, it is deemed that the proposed provision of 1.6 no. car parking spaces per unit (including 240 no. resident spaces and, and excluding 8 no. crèche parking/ drop-off spaces) is aligned with the Compact Settlements Guidelines. Details of car parking provision are set out in Section 4.4.

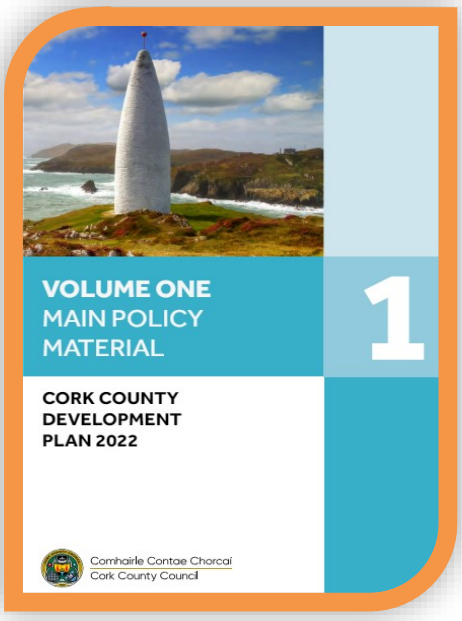
2.3. Regional and Local Policy

Cork Metropolitan Bus Network 2022

The National Transport Authority (NTA) launched new design for the Cork Metropolitan Bus Network in June 2022. The new network, part of BusConnects Cork, is intended to transform the public transport network across the Cork Metropolitan Area. The new network will involve the creation of new bus routes and improved bus frequencies to help transform the public transport network to meet anticipated growth and future demand in the region. Specific proposals of the programme which are of relevance to the application site's sustainable connectivity attributes are presented within Section 3.5 of this Report.

Cork County Development Plan 2022-2028

The *Cork County Development Plan 2022-2028* was adopted by the Elected Members of Cork County Council on Monday 25th April 2022 and came into effect on Monday 6th June 2022, replacing the *Cork County Development Plan 2014*, the 8 no. Municipal District Local Area Plans adopted in 2017 and the 9 no. Town Development Plans of former Town Councils.



Overarching Transport Planning Related Objectives

Chapter 12 of the *Development Plan* outlines the Council's policies and objectives as they relate to transport and mobility. Of relevance to the proposals are the following transport planning related policies, reproduced below:

TM 12-1: Integration of Land Use and Transport

"Support and facilitate the integration of land use with transportation infrastructure, through the development of diverse, sustainable, compact settlements, to achieve sustainable transport outcomes, with the pattern,

location and design of new development in the County to support existing and planned well-functioning, integrated public transport, walking and cycling transport modes.

e) *"Development in smaller rural towns will optimise public transport and sustainable travel integration within settlements.*

TM 12-2: Active Travel

TM12-2-1: *"Deliver a high level of priority and permeability for walking and cycling to promote accessible, attractive, liveable, vibrant and safe settlements to work, live, shop and engage in community life, within a ten minute walk of one's home. Prioritise development in our settlements that is well located and designed to facilitate walking, cycling and public transport trips. Promote equal access for all through the adherence to universal design in the external built environment to facilitate greater use of public transport, walking and cycling.*

e) *Walkability and accessibility by walking mode will be a central objective in the planning and design of all new transport infrastructure and public transport services.*

f) *Public realm upgrades will be promoted to enhance walking and cycling provision in settlements.*

TM12-2-2: *"Promote and facilitate an active travel culture in the County where active travel is a viable choice."*

d) *Support the development of a safe, coherent and continuous cycling infrastructure to cater for the needs of all groups of cyclists, especially new cyclists, school children and the elderly and support safe walking and cycle routes particularly in the approach to schools.*

h) *Seek to improve connectivity within the County and region for walking routes and commuter cycling routes and recreational amenity functions."*

TM 12-8: Traffic/ Mobility Management and Road Safety

b) *"Support demand management measures to reduce car travel and promote best practice mobility management and travel planning via sustainable transport modes."*

Car Parking Standards

Car parking standards are set out in Table 12.6 of the *Development Plan*. The proposed development involves 150 no. residential units under the Large-Scale Residential Development (LRD) process, and therefore the car parking standards for 'Residential' uses apply, as per Table 2.1 below.

Table 2.1 Car Parking Standards

Land Use	Car Parking			
	Standard	Development Attributes	Allowable No. Spaces	Proposed No. Spaces
Residential	2 spaces per dwelling unit 1.25 spaces per apartment unit	150 units (dwelling houses only)	300	240
Crèche	1 space per 3 staff + 1 space per 10 children	10 staff 68 children	10	8 (incl. 2 no. drop-off spaces)

As shown in the preceding table, the proposed car parking provision is lower by 20% than the Development Plan's standard. However, the proposed provision is deemed appropriate in light of the relevant national guidance (the Compact Settlement guidelines described in Section 2.2) and sufficient to meet the development's car parking needs. Of the proposed 248 no. spaces, 240 no. will serve the development's residents, with 6 no. utilised by the crèche staff members and the remaining 2 no. being drop-off spaces at the crèche. Details of the proposed car parking provision are presented in Section 4.4.

Cycle Parking Standards

Cork's cycle parking standards are set out in Table 12.8 of the *Development Plan*. The proposed development involves 150 no. residential units under the Large-Scale Residential Development (LRD) process, and therefore the cycle parking standards for Residential uses apply, as per Table 2.2 below.

Table 2.2 Cycle Parking Standards

Land Use	Long-Stay Cycle Parking				Short-Stay Cycle Parking			
	Standard	Development Attributes	Required No. Spaces	Proposed No. Spaces	Standard	Development Attributes	Required No. Spaces	Proposed No. Spaces
Residential	1 per 1 unit	150 units	150	112*	1 per 5 Unit	150 units	30	28
Childcare	1 per 5 staff	10 staff	2	12	1 per 10 children	68 children	7	-**

* - for 56 no. mid-terrace townhouses only.

** - all crèche cycle parking spaces will be located in a secure store.

As shown in the preceding table, the proposed cycle parking provision includes a total of 132 no. spaces, with 112 no. resident/ long-stay spaces and 28 no. visitor/ short-stay spaces. The resident spaces are noted to only be provided to serve the 56 no. residential units with no direct street access to their private open space, with each such unit provided with 2 no. cycle parking spaces in a secure enclosure within their curtilage.

In the case of the remaining 96 no. units, cycle storage will be accommodated within their individual private open space as arranged by their respective owners. Given that the majority of the proposed units will enable bike storage within private open space, the reduced visitor cycle parking provision is also deemed appropriate. In addition, 12 no. secure cycle parking spaces will be provided at the on-site crèche for use by staff and visitors/ parents.

Details of proposed cycle parking provision are presented in Section 4.4.

3. Site Context

3.1. Introduction

To assess the proposed development's potential impact, an appreciation of the existing situation first needs to be established. This section of the Report describes the existing site layout, access arrangements, the local road network and background traffic conditions. The existing conditions presented herein represents an evidence-based review, and have been informed by:

- a high-level desktop review of the study area and its surrounding transport network, including general traffic road infrastructure, facilities for pedestrians and cyclists and public transport infrastructure and service provision;
- a site assessment to confirm facilities and operating conditions for all road users on the adjoining road network; and
- analysis of classified junction turning count and automatic traffic count survey data collected on Tuesday 28 May 2024 (between the hours of 00:00hrs and 23:59hrs) to determine existing background traffic conditions on the local road network.

3.2. Site Location and Access

Site Location

The subject site is located approximately 32 kilometres to the east of Cork City Centre. As described in Section 1.2 of this Report, it is bounded by the N25 in the north, existing residential development in the west and northeast, and agricultural lands in the east and south.

3.3. Local Road Network

N25

N25 is a two-way national road, which runs in an approximate east-west alignment and forming the route from Cork to Rosslare Europort via Waterford City.



N25 has a uniform horizontal and vertical alignment adjacent to the development site. Its carriageway adjacent to the site is ca. 8.0 metres wide, and its overall cross-section includes a single general traffic lane, with intermittent turning lanes. Footpaths are provided on both sides of the road, separated from the carriageway by a raised level.

No on-street car parking facilities are provided on N25 Road. A 50 km/ h speed limit is in operation on this road and public street lighting is present.

N25/R632/Mogeely Road junction

The N25/R632/Mogeely Road junction is a 4-arm signal controlled junction located to the west of the application site, where Mogeely Road (secondary Road) approaches the N25 (main Road) from the north and R132 approaches the N25 from south. The Northern arm (Mogeely Road) having a single approach and egress lane. The eastern (N25), western (N25) and southern (R632) arms having a single egress lane and two approach lanes.

Footpaths are provided along the four arms of the junction, with dropped kerbs provided to facilitate crossing at the junction. Street lighting and standard signage are provided at the junction.

3.4. Traffic Survey Data Collection and Analysis

Survey Date and Locations

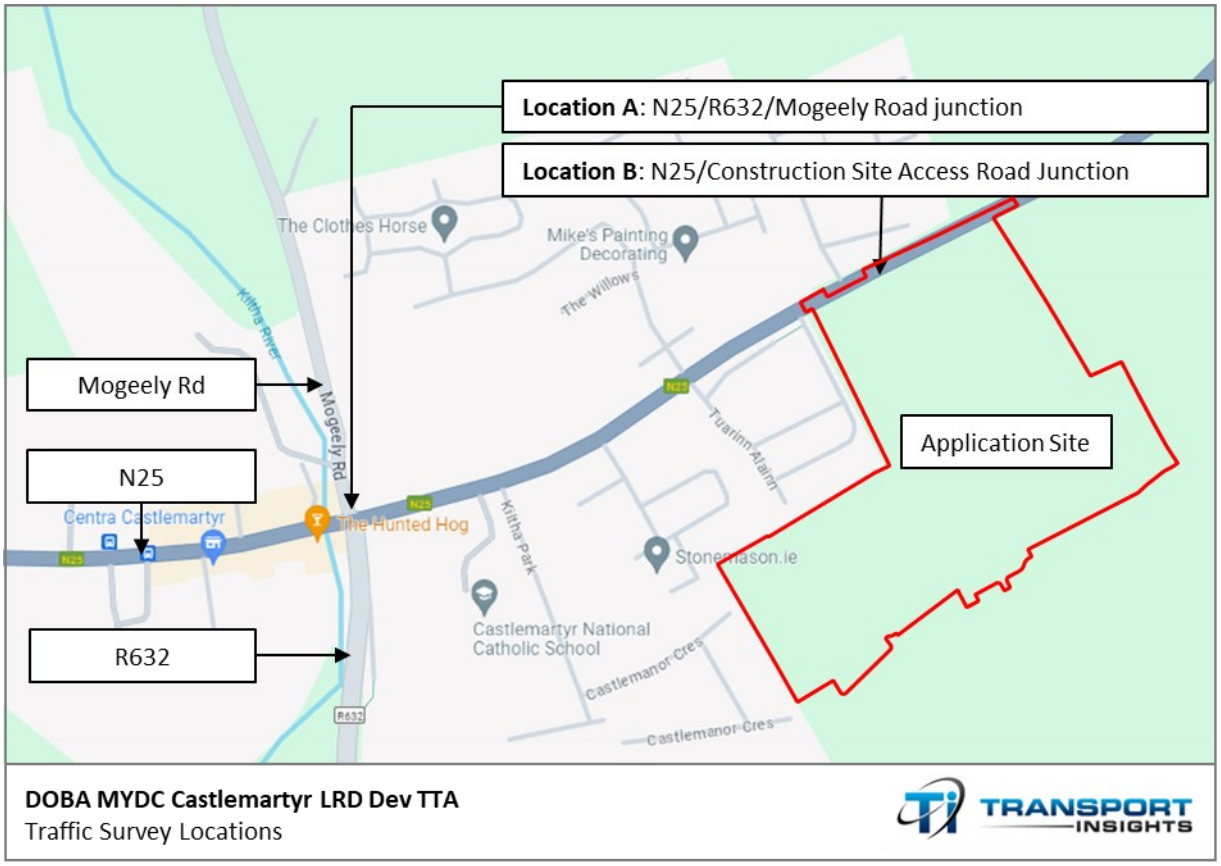
In order to determine baseline traffic conditions and provide a basis from which future development traffic impact can be measured, a classified junction turning count (JTC) and automatic traffic count (ATC) surveys were undertaken. The surveys were carried out on Tuesday, 28 May 2024 between 00:00hrs and 23:59hrs.

The traffic survey involved data collection at the following junctions:

- **Location A**: four-arm, signal controlled N25/R632/Mogeely Road junction (JTC survey); and
- **Location B**: N25 adjacent to the proposed site access (ATC survey).

The surveyed locations outlined above are presented in Figure 3.1, which follows.

Figure 3.1 Traffic Survey Locations



Summary Traffic Survey Results

Following analysis of the traffic survey results, the AM peak hour was determined to be between 08:00hrs and 09:00hrs, with the PM peak hour determined to be between 17:00hrs and 18:00hrs, based on total traffic flow. A summary of the survey results for the AM and PM peak hours is provided in Table 3.1 (below).

Table 3.1 Recorded Two-Way Link Traffic Volumes

Junction	Road Link	AM Peak Hour (08:00hrs-09:00hrs)		PM Peak Hour (17:00hrs-18:00hrs)	
		Total Vehicles	Heavy Vehicles	Total Vehicles	Heavy Vehicles
4-Arm, signal controlled N25/R632/Mogeely Road junction	N25 Road (W)	613	45	463	22
	R632 Road (S)	335	16	226	5
	N25 Road (E)	457	59	723	35
	Mogeely Road (N)	109	9	154	2
N25 (Near Construction Site Access)	N25 Road (W)	352	60	528	63
	N25 Road (E)	536	45	398	12

As can be seen from the preceding Table 3.1, the four-arm signal controlled N25/R632/Mogeely Road junction was found to cater for considerably higher traffic volumes during both the AM (08:00hrs-09:00hrs) and PM (17:00hrs to 18:00hrs) peak hours than at the N25 adjacent to the proposed site access junction. This was to be expected due to the co-location of N25 and R632.

Heavy vehicle (HV) traffic represented 9% and 4% of all recorded vehicles through the N25/R632/Mogeely Road junction during the AM and PM peak hour periods respectively. HV traffic represented 12% and 9% of all recorded vehicles through the N25 ATC (adjacent to proposed site access) during the AM and PM peak hour periods.

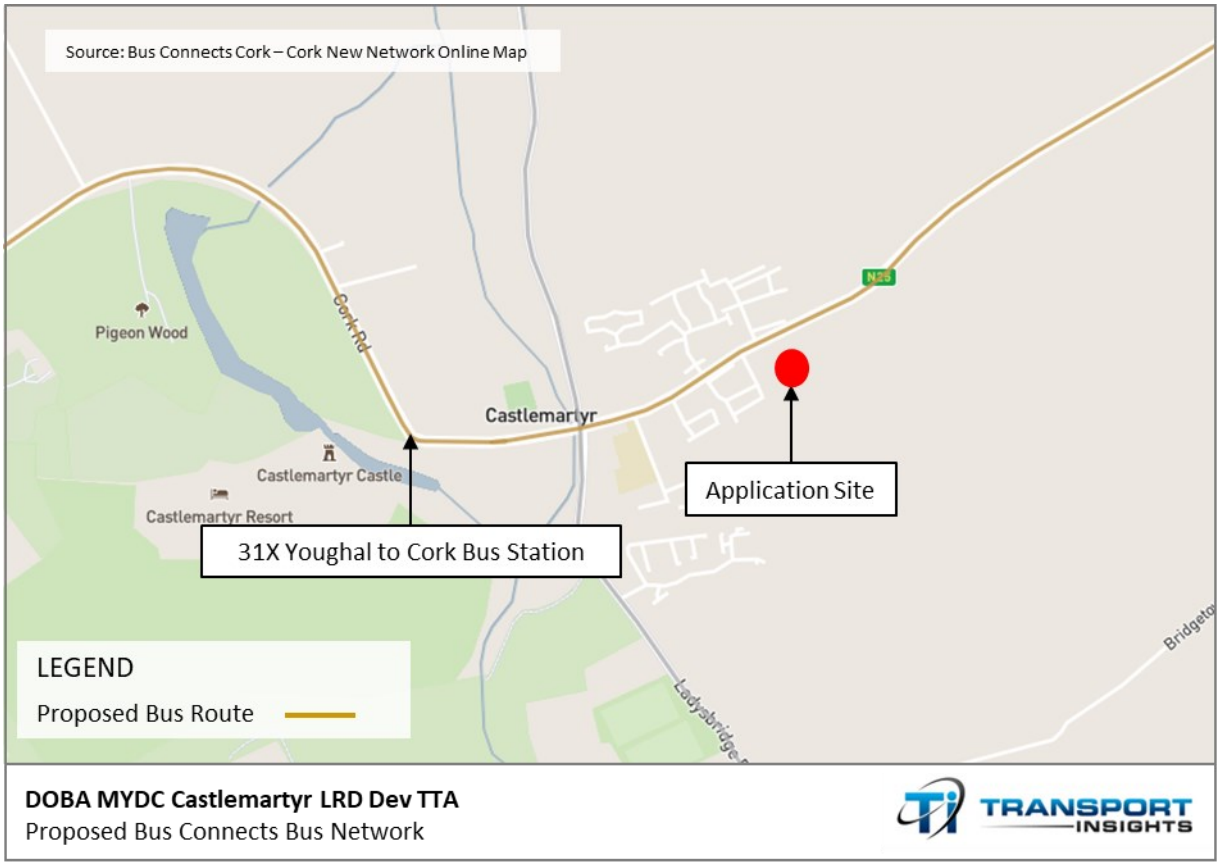
Full traffic survey results are included within Appendix B of this Report.

3.5. Public Transport

Bus Services

The bus services running in vicinity of the application site presented in Figure 3.2 (below). The nearest bus stops to the site are located on N25, ca. 500 meters (ca. 6-min walk) to the west. Currently, these stops are served by the 260 route, which runs between Ardmore, Youghal and Cork city at certain times in the weekday and no services during the weekend. The proposed route in the Vicinity of application site is 31X route, which runs between Youghal and Cork with a headway of 120 minutes throughout all days.

Figure 3.2 Bus Network in Application Site's Vicinity



Details of the routes, including frequencies, are presented within the following Table 3.2.

Table 3.2 Public Transport Services in Application Site's Vicinity

Route No.	Route	Frequency
31X	Youghal -Cork City Centre	120 mins

Proposed Public Transport Improvements

Glounthaune to Midleton Twin Track Project

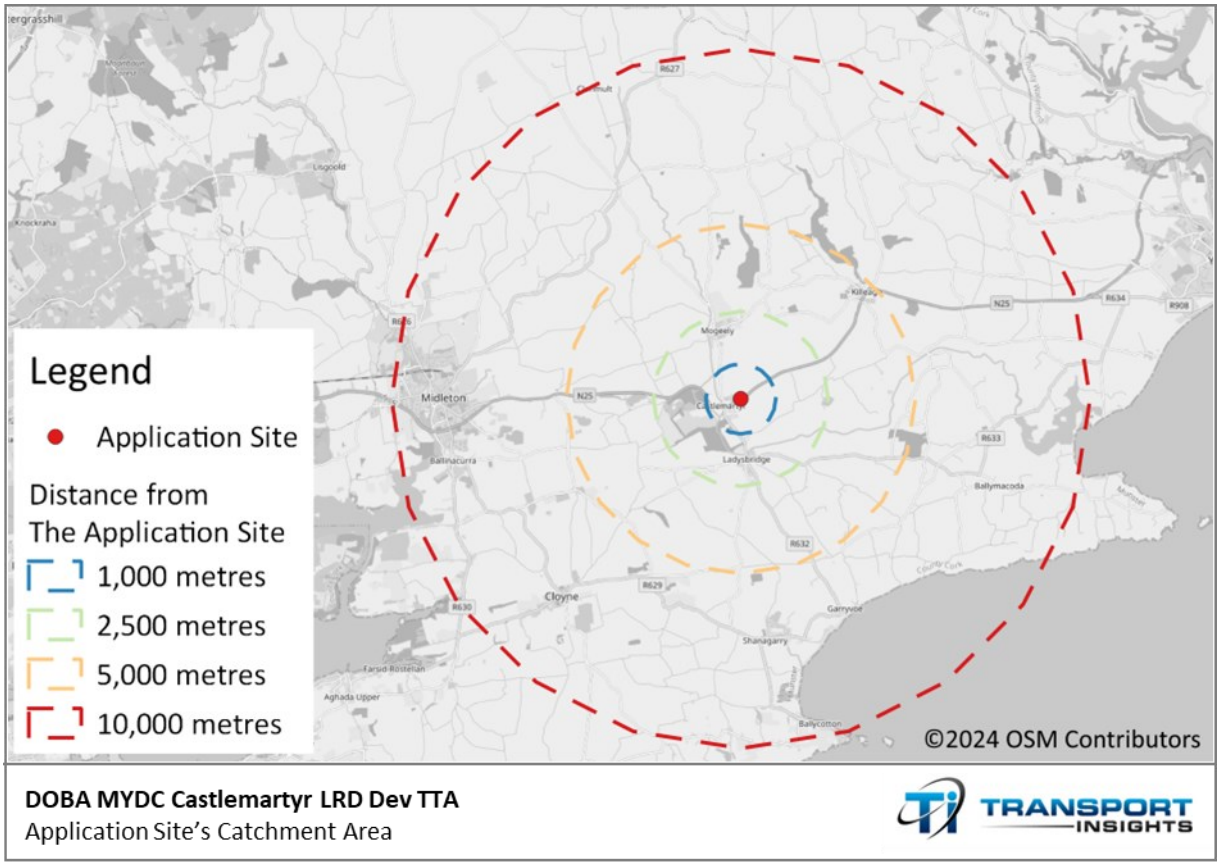
Iarnród Éireann plans to upgrade the existing rail line between Glounthaune and Midleton to enhance commuter services into and out of Cork city. The Glounthaune to Midleton Twin Track project covers the area of the network from Cobh Junction to Midleton Station, a total distance of approximately 10km, and will see the upgrading of the existing line to twin track over its entire length.

Following project implementation, Operation of a higher frequency service at Midleton railway station (ca. 10 kilometres from the application site) up to a 10-minute service from the existing 30-minute service, resulting in increased attractiveness of public transport by increased capacity and reduced waiting times.

3.6. Walking and Cycling Accessibility

The application site's accessibility by walking and cycling is determined by the mainly rural characteristics of the surrounding area, with Castlemartyr Village being the only settlement connected to the application site by continuous walking infrastructure. As such, the degree, to which local population's travel needs can be accommodated by active travel modes, is largely dependent on future expansion of appropriate segregated infrastructure. Nevertheless, Figure 3.3 (overleaf) demonstrates that the entirety of Castlemartyr is located within no more than 2.5 kilometres from the application site, corresponding to a 30-minute walk or a 10 to 15-minute cycle. It should be noted that the nearest railway station, located in Midleton, is less than 10 kilometres from the application site, which demonstrates a potential for it to be accessed by cycling from Castlemartyr – subject to a safe cycling route being provided. Such infrastructure is currently planned, which is described in the latter part of this report section.

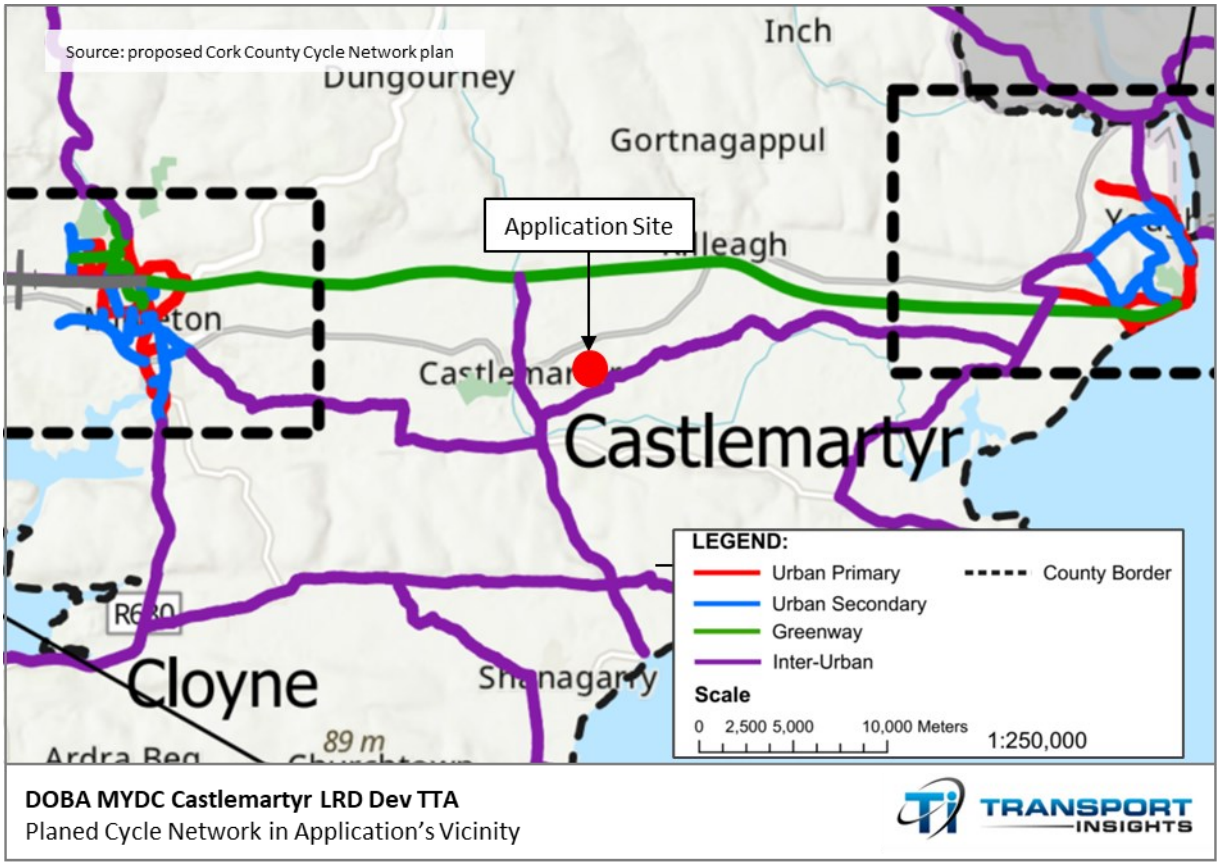
Figure 3.3 Application Site's Catchment



Proposed Cycle Infrastructure Improvements

The planned layout of cycle infrastructure network within the application site has been set out within the *Cork County Cycle Network Plan*, published by the National Transport Authority in 2022. The proposed network in the application site's vicinity is illustrated in Figure 3.4, which follows.

Figure 3.4 Proposed Cycle Network in Application Site's Vicinity



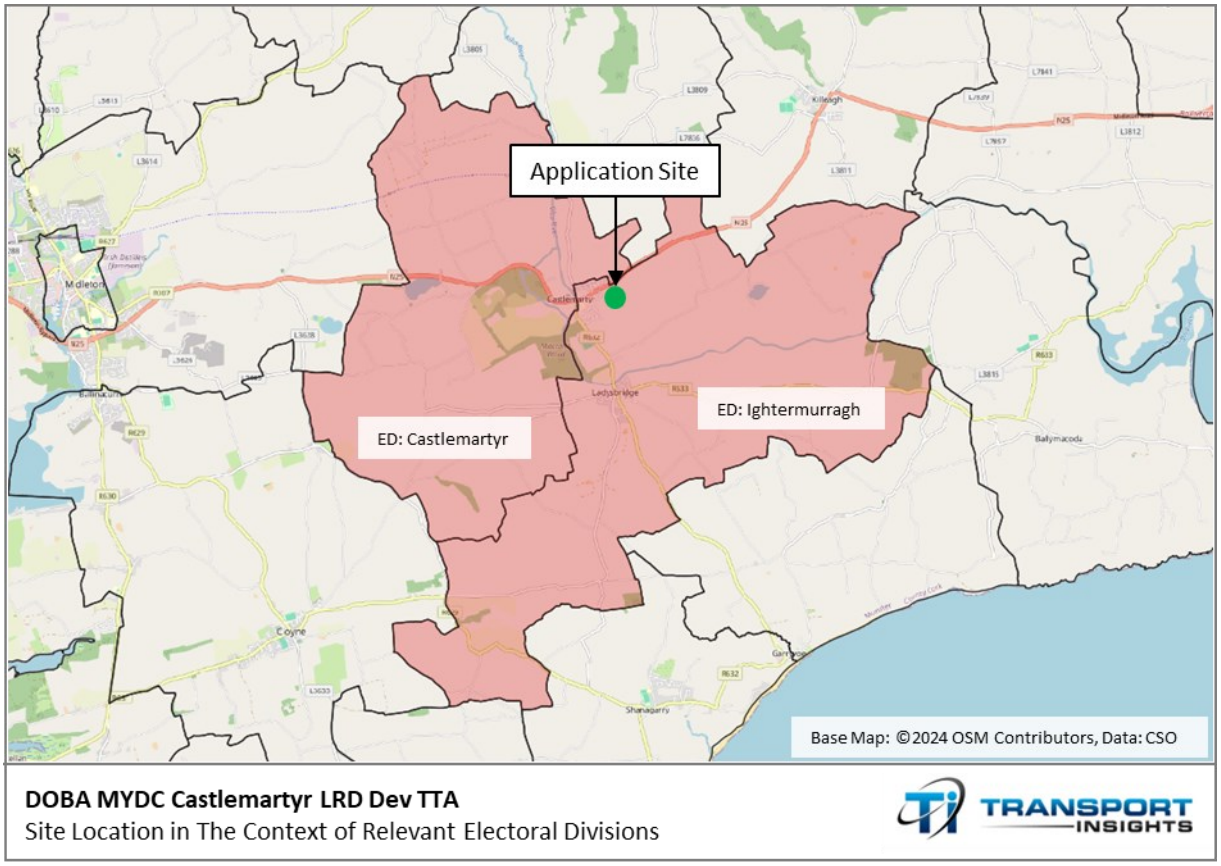
As shown within the preceding figure, Inter Urban Cycle route is planned near the application site and it connects with the Greenway, which connects the Midleton and Youghal.

Overall, the planned cycle network in the area features significant improvements, particularly the addition of dedicated cycling infrastructure and greenways, facilitating longer-distance travel (e.g. to Midleton railway station).

3.7. Current Resident Modal Split Patterns

Central Statistics Office (CSO) Census 2022 SAPS data has been interrogated to ascertain current mode split and car ownership patterns in the application site's environs. For this purpose, the area covering two Electoral Divisions (ED), within which Castlemartyr is located, have been considered. The extent of these EDs and the location of the application site in their context are presented in Figure 3.5 (overleaf).

Figure 3.5 Census 2022 Electoral Divisions in Proximity of The Application Site



Census 2022 data on means of travel to work for the area indicated in Figure 3.7 above has been used to determine local mode shares in commuting trips to work, the results of which are presented in Table 3.3 (below).

Table 3.3 Electoral Division Population by Means of Travel to Work (%)

	On Foot	Bicycle	Public Transport	Car Driver	Car Passenger	Other	Mainly Remote work
% Residents	4%	0%	3%	69%	3%	8%	13%

Table 3.4 Electoral Division Car Ownership per Household

	No car	One car	Two cars	Three Cars	Four or More Cars
% Households	6%	37%	45%	9%	4%

As can be seen from Table 3.3 above, the car is the dominating means of accessing workplaces for the residents of Castlemartyr and its hinterland, utilised by ca. 7 in 10 individuals. This is reflected by the local car ownership patterns, with almost 60% of households having two or more cars. Sustainable travel

modes do not play a major role in accommodating the local population's commuting needs, serving ca. 7% of the commuters. While ca. 13% individuals have declared working primarily from home, the Census data also indicates that overall ca. 34% of the respondents worked from home to some extent. This suggest that there may be scope for further increasing the take-up of remote working, which would reduce the resident's daily travel needs.

4. Description of Proposed Development

4.1 Introduction

This section of the TTA describes key physical attributes of the proposed development including internal site layout characteristics, proposed car and cycle parking provision and provision for other modes.

4.2 Proposed Development

The proposed development comprises the following:

- 150 no. residential units comprised of:
  - 60 no. 2-bed houses;
  - 82 no. 3-bed houses; and
  - 8 no. 4-bed houses.
- 248 no. car parking spaces including:
  - 240 no. resident spaces
  - 6 no. crèche parking spaces (incl. 1 no. wheelchair accessible space); and
  - 2 no. crèche drop-off spaces;
- 112 no. resident cycle parking spaces in the form of secure lockers to serve the 56 no. units without direct street access to their private open space;
- 28 no. visitor parking spaces to serve the residential component of the development; and
- 12 no. secure cycle parking spaces at the crèche.

Vehicular access to the proposed development shall be accommodated via a newly constructed site access junction from the N25 Killeagh Road, which adjoins the site's northern boundary.

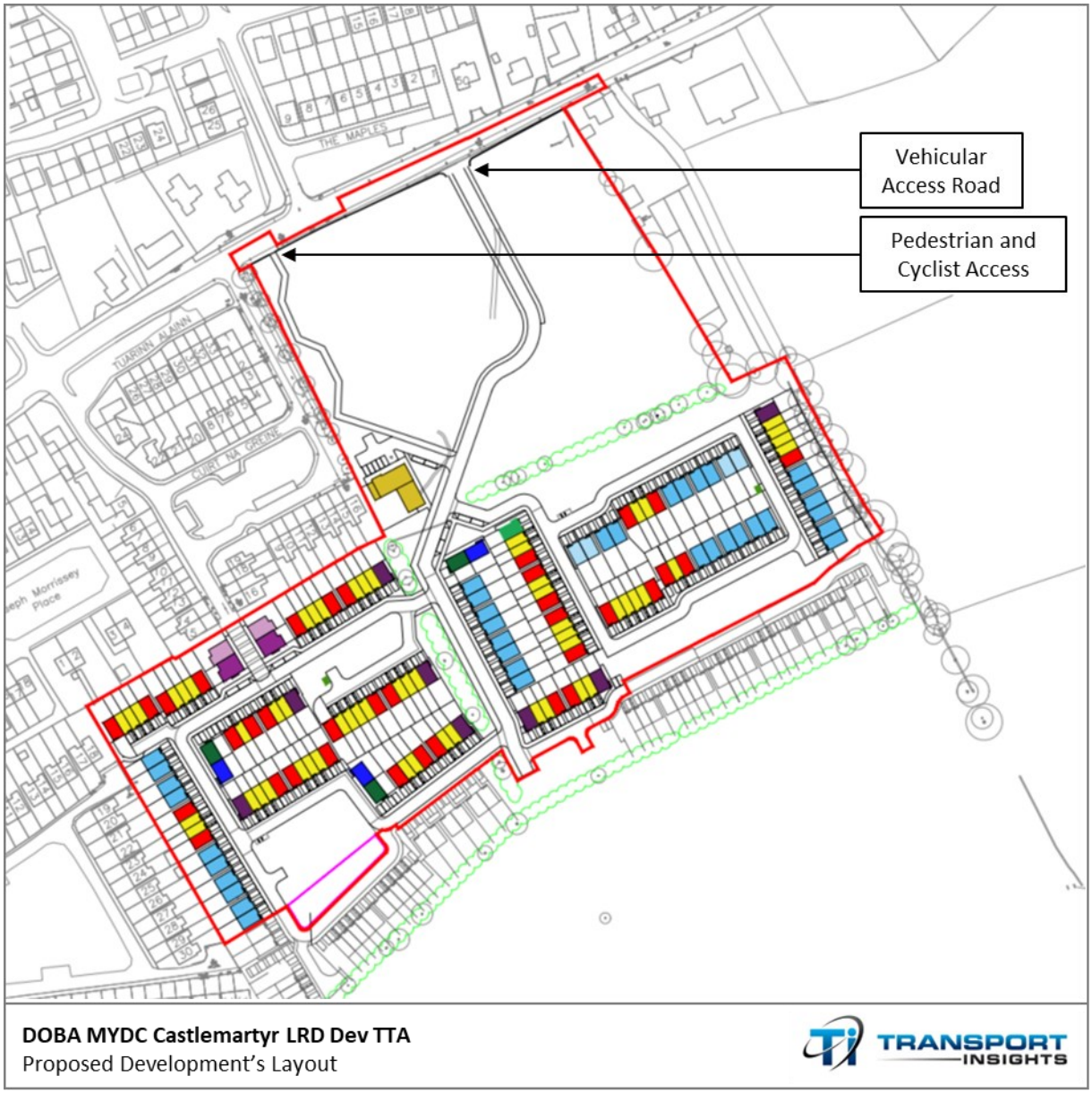
4.3 Proposed Site Access/ Egress and Layout Arrangements

Overview

The proposed development will require the creation of a new site access junction, internal buildings and roads, and associated car and cycle parking facilities. The proposed site layout is shown in Figure 4.1 (overleaf). As can be seen in the figure, the red line boundary also includes a section of N25, where drainage-related enabling works will be undertaken as part of the development's delivery.

A to-scale layout drawing prepared by Deady Gahan Architects is included in the application package as drawing 23069/P/003.

Figure 4.1 Proposed Site Layout Plan



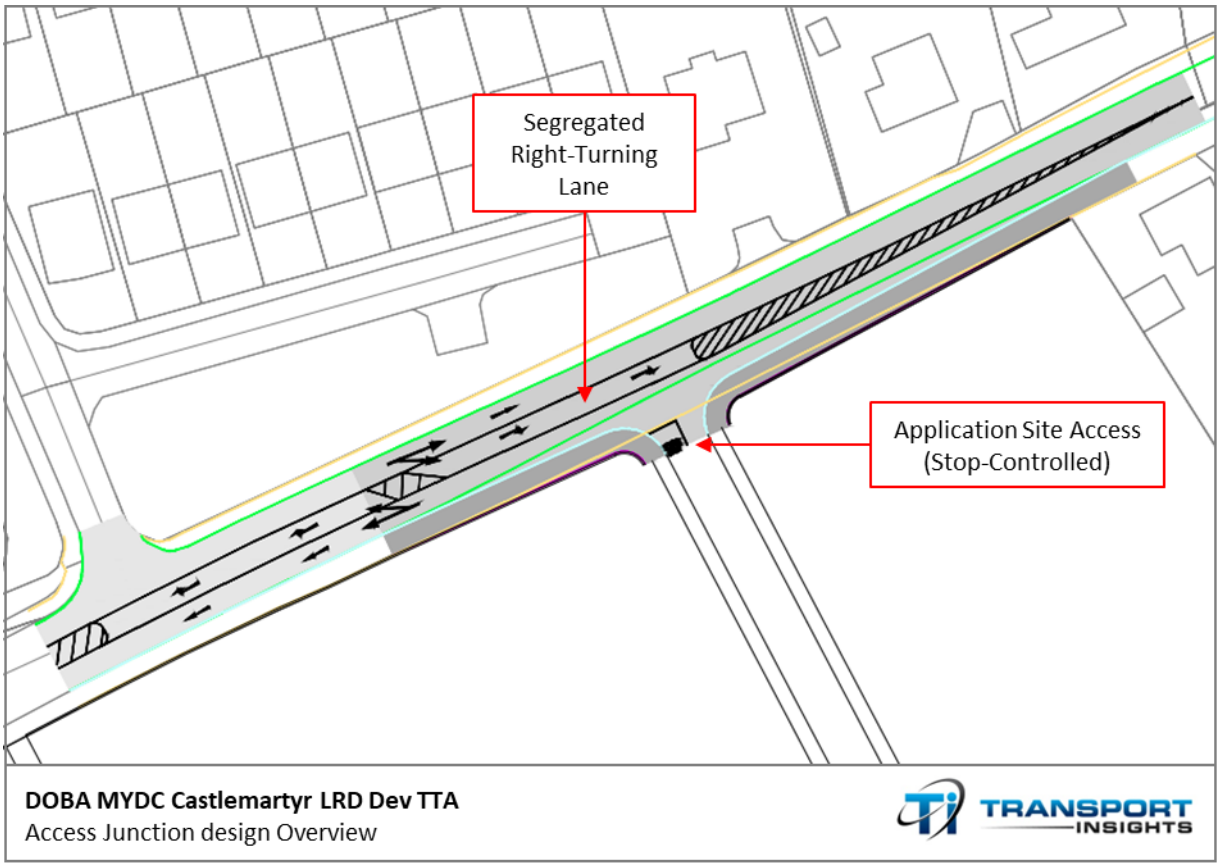
Site Access/ Egress

To enable vehicular access to the site, a new access/egress from the N25 Killeagh Road in the site's northwestern corner. The access will be located ca. 500 metres to the east of the N25/R632/Mogeely Road junction.

The new site access junction will operate as a priority-controlled (STOP) junction, with a 6 metres wide site access arm. The junction has been designed in accordance with advice contained within *DMURS*. To facilitate uninterrupted flow of traffic along the N25 and prevent blocking of other vehicles, a segregated right-turning lane will be provided for vehicles approaching from the west (i.e. from the Cork City direction).

The proposed main site access junction layout is shown in the following Figure 4.2. A to-scale drawing prepared by Deady Gahan Architects is included in the application package as drawing 23069/P/003.

Figure 4.2 Proposed Site Access Junction Layout Overview

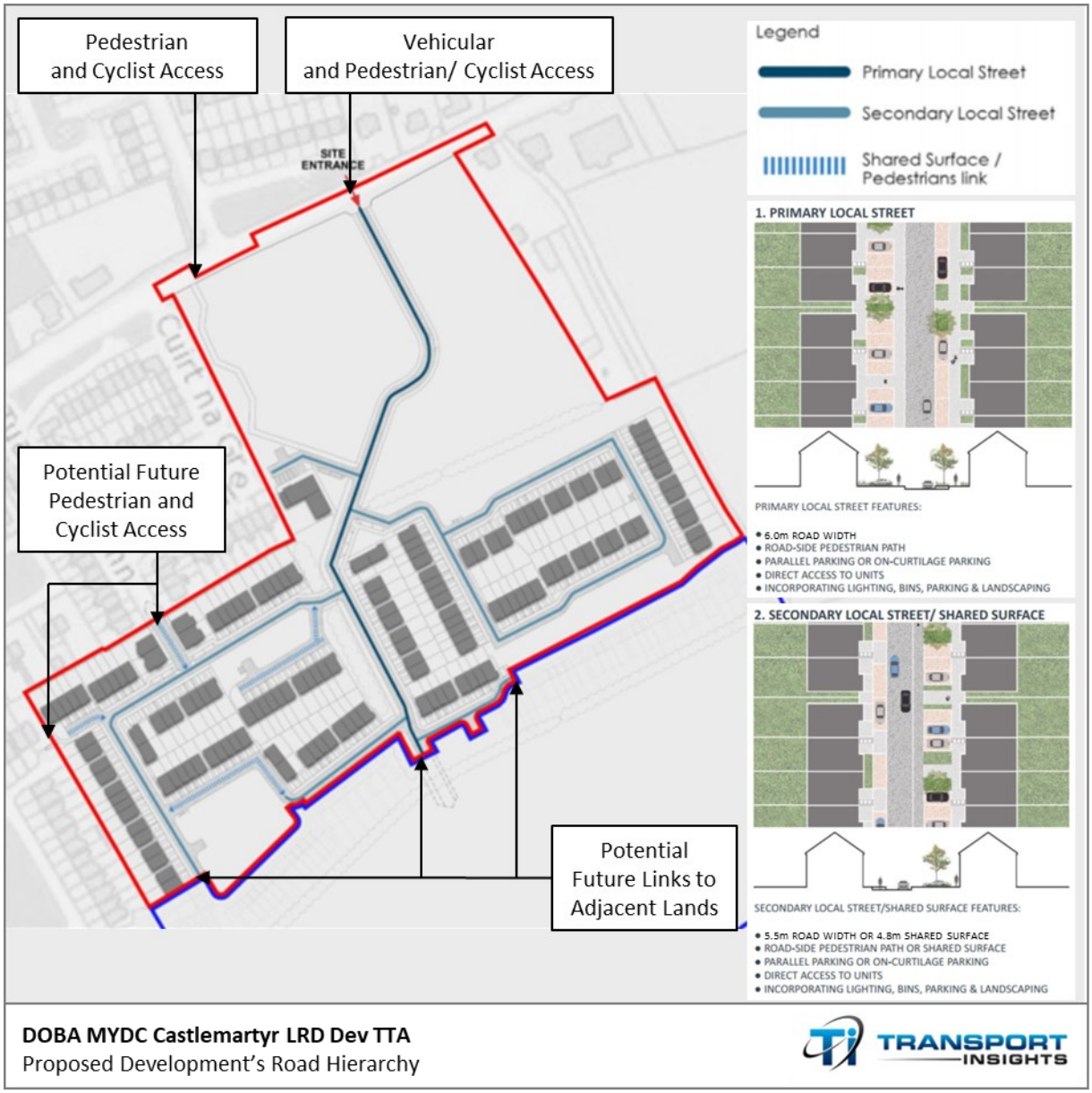


It should be noted that pedestrians will be able to enter the site both at the vehicular access point and, alternatively at a pedestrian-only entrance located in the northwestern corner of the site. The pedestrian entrance will be provided as a more direct way between the proposed development and the town centre.

Internal Site Layout: Key Characteristics

The following Figure 4.3 illustrates the proposed internal road hierarchy within the site and the locations of proposed and potential future external linkages. As noted in the figure, the primary local street connecting to the N25 will have a 6.0 metres wide carriageway with pedestrian footpaths on both sides, whereas the secondary internal roads will either include a narrower, 5.5 metres wide carriageway with adjacent formal footpaths or a 4.8 metres wide shared surface area. The proposed internal road network provides several potential access points to adjacent lands in the interest of improving permeability, with the accesses to existing adjacent residential areas to the west envisaged as accommodating active travel only to minimise impact and promote sustainable mobility. The accesses to the southern portion of the Gortnahomna lands, whose development is not a subject of the current application, are envisaged to accommodate cars as well as pedestrians and cyclists.

Figure 4.3 Internal Road Hierarchy



As can be seen in the preceding figure, the internal road network will be design centred around the new access road connecting to the N25 at the proposed 'STOP' controlled junction (shown in Figure 4.2). All other internal roads will be connected to that main access road, creating a clear road hierarchy. All internal junctions will be designed as T-junctions (priority-controlled), with details in accordance with DMURS. Traffic calming features will include raised junctions, raised pedestrian crossings, shared surface road sections, and road deflections, as shown in Figure 4.4 (overleaf).

Figure 4.4 Key Mobility Features



Servicing

Refuse collection vehicles are proposed to access/egress the site from N25 Killeagh Road via the new site access junction. Waste bins will normally be kept in individual stores at each house and will be taken out to collection locations prior to the waste contractor arriving. Waste will be collected from said locations, with the swept path drawings included in the application package demonstrating sufficient manoeuvrability.

Swept Path Analysis

A swept path analysis has been carried out in order to ensure that both refuse vehicles (large refuse vehicle) and emergency vehicles (large fire tender) will be capable of accessing, circulating within and egressing the site. A full set of swept path drawings has been included in the application package.

Pedestrian Facilities

Pedestrian footpaths with widths ranging from 1.8 metres to 3.0 metres will be provided across the proposed development, linking all access points to the facilities within the site. Pedestrian-oriented socializing space will be provided in the central part of the proposed development.

Street Lighting

Street lighting will be provided within the site along the internal vehicular carriageways and within pedestrian areas. Street lighting is currently provided along the N25 Killeagh Road.

4.4 Parking Arrangements

Cycle Parking

To meet the residents' cycle parking demand, 56 no. secure bicycle storage receptacles (with a capacity for 2 no. bikes each) will be provided on site in the front gardens of the 2-bedroom mid-terrace townhouse dwellings, which have no direct street access to their private open space (i.e. back garden). As every other unit has direct access to a private area of open space, they are not provided with secure bicycle parking receptacles.

In addition, 28 no. visitor cycle parking spaces will be provided across the site, grouped into 2 no. blocks of 7 Sheffield stands each. Furthermore, 12 no. cycle parking spaces will be provided in a store at the on-site crèche, to be used by staff and parents/ visitors.

Car Parking

The proposed car parking provision has been designed to ensure balance the resident's mobility needs with the focus on alternative modes of transport, while being cognisant of the site's locational and accessibility characteristics. The current *Cork County Development Plan* and the *Sustainable Residential Development and Compact Settlements Guidelines* (January 2024) have been consulted in order to determine a suitable amount of car parking.

Accordingly, it is proposed that 1 no. resident parking space will be assigned to each 2-bedroom unit (60 no. units in total), with 2 no. resident parking spaces assigned to each 3- or 4-bedroom unit (90 no. units in total). Overall, 240 no. resident parking spaces will be provided, all of which will be ground level, perpendicular spaces. Such spaces will be located either in the individual unit's curtilage or, where the same is not practical (in the case of 10 no. units), in groups of on-street spaces in proximity of the relevant units.

To serve the needs of the on-site crèche, 6 no. parking spaces (incl. 1 no. wheelchair-accessible space) and 2 no. drop-off spaces will be provided. The spaces will be ground-level spaces located adjacent to the crèche, including 6 no. perpendicular parking spaces and 2 no. parallel drop-off spaces.

The total car parking provision includes 248 no. spaces (incl. 2 no. drop-off spaces), which translates into 1.65 no. spaces per unit. Considering resident spaces only, a rate of 1.60 no. spaces per unit is proposed.

To enable future EV charging, all in-curtilage spaces will be equipped with ducting to enable installation of charging points.

4.5 Stage 1 Road Safety Audit

A Stage 1 Road Safety Audit (RSA) covering the design of the proposed development's access junction and internal road infrastructure was undertaken by Traffico Road Safety Engineering. An RSA Report, including the provided feedback items and designer's response, is included in the current application package.

5. Traffic Growth Forecasting, Trip Generation and Assignment

5.1 Introduction

This section of the Report sets out the approach pursued and assumptions underpinning the estimation of traffic in the without development and with-development scenarios for all junctions under assessment. The assumed first full year of opening for the overall proposed development is 2026. Two time periods are considered, the AM peak hour (08:00-09:00hrs) and the PM peak hour (17:00-18:00hrs), as identified from traffic surveys detailed in Section 3.4 of this Report. The outputs of this analysis represent key inputs to junction modelling activities which are reported on in the subsequent Section 6 of this report.

5.2 Background Traffic Growth Forecasting

In order to identify the impact of the development proposals on the local road network, it is first necessary to establish background traffic conditions in the without development or do-nothing scenario for the base year (2024), the full development's assumed year of opening (YoO, 2026), year of opening + 5 years (YoO+5, 2031) and the year of opening + 15 years (YoO+15, 2041). Traffic levels in the do-nothing scenario comprise forecast background traffic flows, which is assumed to grow organically over the assessment period.

Forecast Background Traffic Flows

Existing traffic flows on the surrounding road network, as determined via traffic surveys undertaken in 2024 (and summarised in Section 3.4 of this Report), have been adjusted through application of appropriate growth factors to obtain YoO, YoO+5 and YoO+15 traffic flows. For this assessment, growth factors were determined from the Transport Infrastructure Ireland (TII) *Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections*, October 2021. Information within these guidelines is provided for the Dublin Metropolitan Region, for time periods 2016-2030 and 2030-2040 for low sensitivity, central and high sensitivity growth scenarios.

In this assessment, the forecast future background traffic flows have been calculated by applying the growth factors relating to the central growth scenario. These factors, for light vehicles (LVs) and heavy vehicles (HVs), are set out in the following Table 5.1.

Table 5.1 TII Traffic Growth Factors (Central) – Cork Region

Year	Annual Growth Factor – LV	Annual Growth Factor – HV
2016-2030	1.0189	1.0377
2030-2050	1.0087	1.0160

Based on the growth factors in the preceding Table 5.1, 2024 traffic volumes have been factored to 2026, 2031 and 2041 levels, to determine the assumed year of opening, year of opening + 5 years and year of opening + 15 years traffic volumes, without the proposed development in place.

The following Table 5.2 provide an overview of do-nothing base year, YoO, YoO+5 and YoO+15 AM and PM peak hour traffic volumes.

Table 5.2 Background Traffic Volumes

Time Period	Item	N25/R632/Mogeely Road junction	N25/Application Site Access Road Junction
AM Peak Hour	2024 Traffic Flows	1,514	888
	2026 (YoO) Traffic Flows	1,577	926
	2031 (YoO+5) Traffic Flows	1,727	1,017
	2041 (YoO+15) Traffic Flows	1,896	1,120
PM Peak Hour	2024 Traffic Flows	1,566	926
	2026 (YoO) Traffic Flows	1,628	964
	2031 (YoO+5) Traffic Flows	1,776	1,056
	2041 (YoO+15) Traffic Flows	1,942	1,158

5.3 Preliminary Traffic Impact Forecasting Approach

The Traffic impact of proposed development has initially been considered with respect to two key junctions in the application site's vicinity, namely:

- N25/R632/Mogeely Road junction; and
- N25/ Application Site Access Road Junction.

Forecasting has been undertaken with respect to the following assessment years, with baseline traffic volumes scaled up from the 2024 records as described in Section 5.2:

- Year of Opening (YoO): 2026;
- Year of Opening + 5 Years (YoO+5): 2031; and

- Year of Opening + 15 Years (YoO+15): 2041.

A review of committed developments (developments that have been granted permission, but are not yet developed/ operational) within the vicinity of the application site has been undertaken via the Cork County Council planning website (http://planning.corkcoco.ie/ePlan/SearchTypes). The search did not result in the identification of any developments external to the application site of relevant scale or proximity that were deemed to be necessary to include as part of the impact assessment. The following scenarios have been considered in the analysis:

- Do-Nothing: baseline traffic only; and
- Do-Something: baseline traffic in addition to proposed development.

The analysis has been undertaken for the AM and PM network peak hours (08:00-09:00hrs and 17:00-18:00hrs respectively), as identified from the May 2024 traffic surveys (see: Section 3.4).

The preliminary traffic impact assessment has involved comparing the percentage increase in traffic volumes between the Do-Something and Do-Nothing scenarios. The difference between the two scenarios has been found to be low (<3.5% at the N25/R632/Mogeely Road junction in the AM and PM peak hour, <7% at the N25/ Application Site Access Road. However, a detailed development traffic impact assessment by junction traffic modelling has been undertaken with respect to the N25/R632/Mogeely Road junction and N25/ Application Site Access Road.

The outputs of that detailed assessment are presented in Section 6 of this Report.

5.4 Proposed Development Traffic Forecasting

Trip Generation Forecast

Data from the Trip Rate Information Computer System (TRICS) has been utilised to calculate the quantum of vehicle trips likely to be generated by a development of the scale and type proposed (as per Section 4). Trip generation data was determined for on-site land use namely 'Residential – houses privately owned'. Given the site's location, developments in 'suburban/edge of town' locations were selected with data analysed for the morning (08:00-09:00hrs) and evening (17:00-18:00hrs) peak hours in order to determine the maximum impact of the proposed development on the local road network. Determined trip rates for the AM and PM peak hour hours are shown in Table 5.3 (below).

Table 5.3 TRICS Unit Trip Rates

TRICS Land Use Category	Rate	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
		Arrivals	Departures	Arrivals	Departures
Residential – houses privately owned	per dwelling	0.134	0.292	0.273	0.142

Applying the trips rates shown in Table 5.3 above to the schedule of accommodation (including 150 no. dwellings), the following Table 5.4 indicates the daily expected development traffic generation from the TRICS data outputs.

Table 5.4 Proposed Development's Traffic Generation – Network Traffic Peaks and All-Day

Time Period	Inbound	Outbound	Total
AM Peak 08:00-09:00hrs	20	44	64
PM Peak 16:00-17:00hrs	41	21	62
Daytime 07:00-19:00hrs	314	313	627

As can be seen from the preceding Table 5.4, it is estimated that the development proposal would generate 314 no. additional inbound vehicle trips and 313 no. additional outbound vehicle trips i.e. 627 no. total additional trips over the daytime period from 07:00-19:00hrs. Most of the development traffic is forecast to occur in the periods 08:00-09:00hrs (64 no. trips) and 17:00-18:00hrs (62 no. trips). Full TRICS trip generation data is included at Appendix C. The vast majority of the development-related trips would be envisaged to be light vehicle trips, with only occasional HGV movements (such as refuse trucks).

Traffic Distribution

Due to the location of the site, all traffic generated by both the proposed development and the permitted development will access/ egress though the N25 Road. While it is unknown what the future residents trip distribution at the proposed (or permitted) development might be, the following conservative traffic distribution has been assumed:

- 80% to/ from the west Via N25 Road (towards/ from Cork City); and
- 20% to/ from the east Via N25 Road (towards/ from Killeagh Village).

5.5 Do-Something Scenario

The Do-Something traffic volumes represent the forecast Do-Nothing traffic volumes (i.e. 2024 survey data scaled up to YoO, YoO+5, and YoO+15) expanded by adding the proposed development traffic (as set out in Section 5.3). The outputs are presented in Table 5.5, which follows.

Table 5.5 Do-Something Traffic Volumes Calculation

Time Period	Item	N25/ R632/ Mogeely Road Junction	N25/ Application Site Access Road Junction
AM Peak Hour	Base Year (2024)	1,514	888
	Do-Nothing Traffic 2026 (YoO)	1,577	926
	Proposed Development Traffic	51	64
	Do-Something Traffic 2026 (YoO)	1,628	990
	Do-Nothing Traffic 2031 (YoO+5)	1,727	1,017
	Proposed Development Traffic	51	64
	Do-Something Traffic 2031 (YoO+5)	1,778	1,081
	Do-Nothing Traffic 2041 (YoO+15)	1,896	1,120
	Proposed Development Traffic	51	64
	Do-Something Traffic 2041 (YoO+15)	1,947	1,183
PM Peak Hour	Base Year (2024)	1,566	926
	Do-Nothing Traffic 2026 (YoO)	1,628	964
	Proposed Development Traffic	50	62
	Do-Something Traffic 2026 (YoO)	1,678	1,026
	Do-Nothing Traffic 2031 (YoO+5)	1,776	1,056
	Proposed Development Traffic	50	62
	Do-Something Traffic 2031 (YoO+5)	1,826	1,118
	Do-Nothing Traffic 2041 (YoO+15)	1,942	1,158
	Proposed Development Traffic	50	62
	Do-Something Traffic 2041 (YoO+15)	1,992	1,221

5.6 Proposed Development's Traffic Impact

The future traffic impact of the proposed development has been estimated by comparing the forecast Do-Something and Do-Nothing traffic flows in the development's YoO, YoO+5, and YoO+15 (as detailed in Sections 5.5 and 5.2, respectively). The obtained outputs are presented in Table 5.6, which follows.

Table 5.6 Proposed Development's Traffic Impact

Time Period	Item	N25/R632/ Mogeely Road junction	N25/Application Site Access Road Junction
AM Peak Hour	Base Year (2024)	1,514	888
	Do-Nothing Traffic 2026 (YoO)	1,577	926
	Do-Something Traffic 2026 (YoO)	1,628	990
	2026 (YoO) Traffic Increase (Do-Sth vs Do-Nth)	3.24%	6.90%
	Do-Nothing Traffic 2031 (YoO+5)	1,727	1,017
	Do-Something Traffic 2031 (YoO+5)	1,778	1,081
	2031 (YoO+5) Traffic Increase (Do-Sth vs Do-Nth)	2.96%	6.28%
	Do- Nothing Traffic 2041 (YoO+15)	1,896	1,120
	Do-Something Traffic 2041 (YoO)	1,947	1,183
	2041 (YoO+15) Traffic Increase (Do-Sth vs Do-Nth)	2.63%	5.40%
PM Peak Hour	Base Year (2024)	1,566	926
	Do-Nothing Traffic 2026 (YoO)	1,628	964
	Do-Something Traffic 2026 (YoO)	1,678	1,026
	2026 (YoO) Traffic Increase (Do-Sth vs Do-Nth)	3.06%	6.46%
	Do- Nothing Traffic 2031 (YoO+5)	1,776	1,056
	Do-Something Traffic 2031 (YoO+5)	1,826	1,118
	2031 (YoO+5) Traffic Increase (Do-Sth vs Do-Nth)	2.80%	5.90%
	Do- Nothing Traffic 2041 (YoO+15)	1,942	1,158
	Do-Something Traffic 2041 (YoO)	1,992	1,221
	2041 (YoO+15) Traffic Increase (Do-Sth vs Do-Nth)	2.56%	5.37%

As shown in the preceding table, at the N25/ R632/ Mogeely Road junction, following the opening of the proposed development, traffic volumes are forecast to increase by ca. 3.24% in the AM peak hour and ca. 3.06% in the PM peak hour in the Year of Opening (2026). For the YoO+5 increases in ca. 2.96%

and 2.80% for the AM and PM peak hours are forecasted respectively, with the YoO+15 forecasting increases of 2.63% and 2.56% in the AM and PM peaks respectively.

Similarly, at the N25/ Application Site Access Road Junction, following the opening of the proposed development, traffic volumes are forecast to increase by ca. 6.90% in the AM peak hour and ca. 6.46% in the PM peak hour in the Year of Opening (2026). For the YoO+5 increases in ca. 6.28% and 5.90% for the AM and PM peak hours are forecasted respectively, with the YoO+15 forecasting increases of 5.40% and 5.37% in the AM and PM peaks respectively.

TII's Traffic and Transport Assessment Guidelines indicate for an adjoining road where "traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive" more detailed analysis of the traffic impacts may be required. It can be seen from the results presented in Tables 5.6 that the projected traffic impact of the N25/ Application Site Access Road Junction is greater than 5%. The high % increase in traffic through this junction can largely be attributed to the very low baseline traffic volumes through the junction. While the projected traffic increase at the N25/ R632/ Mogeely Road Junction does not exceed the stated threshold, the junction is deemed to be critical due to its strategic location and role in the road network. Accordingly, detailed traffic modelling of the N26/ Application Site Access Road Junction and the N25/ R632/ Mogeely Road Junction has been undertaken and is reported on in Section 6, which follows.

6. Traffic Modelling Approach and Outputs

6.1. Introduction

As noted in the preceding Section 5, the preliminary impact assessment, which involved estimating the percentage increase in key junction traffic due to the delivery of the proposed development, has shown that the overall impact of the revised proposed development on traffic volumes at the selected junctions would be limited, with local capacity constraints attributable primarily to the expected growth in background traffic. Notwithstanding, a more detailed assessment of the traffic impact on the 4-arm signal controlled N25/R632/Mogeely Road junction and 3-arm N25/ Application SiteAccess Road Junction have been undertaken, which involved modelling of traffic at these junctions using the LinSig and Junction 9 (PICADY module) software packages, respectively.

Detailed modelling outputs for the have been included in Appendix D.

6.2. Traffic Modelling Approach and Scope

Traffic modelling has been undertaken at the 4-arm signal controlled N25/R632/Mogeely Road junction and 3-arm N25/ Application Site Access Road Junction using LinSig and Junction 9 (PICADY module) software packages, respectively.

The list of modelling runs has been based on the number of key variables, which are set out in Table 6.1, which follows.

Table 6.1 List of Modelling Variables

Variable	No.	Description
Time of Day	2	Network AM Peak Hour, Network PM Peak Hour
Modelling Year	4	2024[1], 2026 (YoO), 2031 (YoO+5), 2041 (YoO+15)
Development Scenarios	2	Do-Nothing (without proposed development), Do-Something (with proposed development)

As can be seen in the preceding table, the impact of the proposed development on junction traffic has been considered for a range of future years and both the AM and PM peak. With the N25/ Application Site Access Road Junction being part of the proposed development (and as such not existing in the base year or in the future Do-Nothing scenarios), its performance has only been assessed for the Do-Something scenario. Overall, 14 model runs have been undertaken for the N25/ R632/ Mogeely Road Junction and 6 model runs have been undertaken for the N25/ Application Site Access Road Junction.

[1] - Do-Nothing scenario only

The modelling outputs obtained include the following indicators:

- For the signal controlled N25/ R632/ Mogeely Road Junction:
  - Degree of saturation (DoS) [%];
  - Average delay per PCU [s];
  - Mean maximum queue length [PCU]; and
  - Level of Service [A to F].
- For the priority controlled N25/ Application Site Access Road Junction:
  - Average queue length [PCU];
  - Average delay per PCU [s];
  - Ratio of flow to capacity (RFC) [-]; and
  - Level of Service [A to F].

6.3. Traffic Modelling Outputs for N25/R632/Mogeely Road junction

Table 6.2, below, presents the LinSig traffic modelling outputs for the existing 4-arm signal controlled N25/ R632/ Mogeely Road junction with the different scenarios for the identified network AM and PM peak hours, i.e. 08:00-09:00hrs and 17:00-18:00hrs respectively. For each arm, outputs for the critical (i.e. worst performing) lane have been provided. The following arm designations have been used in the table:

- Arm A: N25 Road (East);
- Arm B: R632 Road (South);
- Arm C: N25 Road (West); and
- Arm D: Mogeely Road (North).

Table 6.2 Modelling Results: N25/ R632/ Mogeely Road Junction

Arm	AM				PM			
	Deg Sat [%]	Avg Delay per PCU [s]	Mean Max Queue [pcu]	LOS	Deg Sat [%]	Avg Delay per PCU [s]	Mean Max Queue [pcu]	LOS
Base Year 2024								
A	84%	61	31	D	84%	85	28	F
B	83%	80	17	E	83%	103	13	F
C	84%	55	27	D	84%	51	38	D
D	82%	138	8	F	84%	140	11	F
Do Nothing YoO (2026)								
A	88%	66	33	E	87%	91	30	F
B	88%	89	19	F	87%	111	14	F
C	88%	60	26	E	87%	55	42	D
D	86%	149	9	F	86%	147	12	F

Arm	AM				PM			
	Deg Sat [%]	Avg Delay per PCU [s]	Mean Max Queue [pcu]	LOS	Deg Sat [%]	Avg Delay per PCU [s]	Mean Max Queue [pcu]	LOS
Do Nothing YoO+5 (2031)								
A	97%	92	43	F	96%	116	38	F
B	96%	122	25	F	95%	142	18	F
C	97%	94	36	F	95%	75	53	E
D	94%	187	11	F	95%	185	15	F
Do Nothing YoO+15 (2041)								
A	107%	230	86	F	105%	234	61	F
B	107%	265	45	F	104%	245	27	F
C	107%	264	74	F	105%	187	89	F
D	105%	301	17	F	103%	281	21	F
Do Something YoO (2026)								
A	90%	68	36	E	89%	95	33	F
B	90%	96	20	F	89%	118	14	F
C	90%	65	28	E	90%	59	46	E
D	90%	168	9	F	88%	151	12	F
Do Something YoO+5 (2031)								
A	99%	106	50	F	98%	129	42	F
B	98%	137	27	F	96%	155	19	F
C	99%	122	41	F	98%	91	62	F
D	99%	137	27	F	96%	201	16	F
Do Something YoO+15 (2041)								
A	110%	285	101	F	106%	262	67	F
B	108%	284	49	F	107%	298	33	F
C	109%	299	83	F	107%	226	104	F
D	110%	382	20	F	107%	341	24	F

The results of traffic modelling presented above demonstrate that the existing Signal Controlled N25/ R632/ Mogeely Road junction currently operates within design capacity in both the network AM and PM peak hours. In terms of future spare capacity, all the arms of the junction are exceeding the 90% DoS design capacity threshold by YoO+5 and the 100% DoS theoretical capacity threshold by YoO+15 (2040) in both the AM and PM peak hour in the Do-Nothing scenario.

The impact of the proposed development at the subject site is expected to only be incremental, with DoS differences between the Do-Nothing and Do-Something scenario outputs for each respective year and time of day not exceeding 5 percentage points. While the subject junction is expected to experience increasing capacity pressures over the assessment period, the presented modelling outputs demonstrate that this cannot be attributed to the proposed development. While the impact of the proposed development on the delay and queue length indicators appears more pronounced, it should be noted that at high capacity utilisation any additional traffic may result in a disproportionate degradation of the level of service, while estimating the precise extent of such impact becomes increasingly challenging.

It should also be noted that the forecast congestion levels are not considered likely to materialise in physical reality, as growing peak time delays will likely incentivise a shift in the choice of travel mode, route or time, and may prompt some individuals to forgo travel entirely (e.g. by switching to remote working).

Overall, the presented modelling outputs demonstrate that the subject junction will experience increasing capacity pressures attributable to increases in background traffic volumes irrespective of whether the proposed development is delivered, with its impact only deemed incremental in nature.

Detailed modelling results are included as Appendix D of this Report.

6.4. Traffic Modelling Outputs for N25/ Application Site Access Road Junction

Table 6.3, below, presents the Junction 9 (PICADY) traffic modelling outputs for the proposed 3-arm priority controlled N25/ Application Site Access Road Junction with the different scenarios for the identified network AM and PM peak hours, i.e. 08:00-09:00hrs and 17:00-18:00hrs respectively. For each arm, outputs for the critical (i.e. worst performing) lane have been provided. The following arm designations have been used in the table:

- Arm A: N25 Road (East);
- Arm B: Construction Site Access Road (South); and
- Arm C: N25 Road (West).

Table 6.3 Modelling Results: N25/ Application Site Access Road Junction

Stream	AM				PM			
	Queue [PCU]	Delay [s]	RFC	LOS	Queue [PCU]	Delay [s]	RFC	LOS
Do Something YoO (2026)								
B-AC	0.1	9.37	0.11	A	0.0	7.32	0.04	A
C-AB	0.0	7.55	0.04	A	0.1	6.31	0.06	A
Do Something YoO+5 (2031)								
B-AC	0.1	9.90	0.12	A	0.0	7.49	0.05	A
C-AB	0.0	7.79	0.04	A	0.1	6.35	0.06	A
Do Something YoO+15 (2041)								
B-AC	0.1	10.55	0.12	A	0.0	7.69	0.05	A
C-AB	0.0	8.07	0.04	A	0.1	6.39	0.07	A

As indicated by Table 6.3, the proposed priority controlled N25/ Application Site Access Road Junction shall operate with spare capacity. The arm indicating the worst result is the Application Site Access Road (South) arm in YoO+15, estimated to have a queue of 0.1 PCU, delay of 10.55 second per PCU, and an RFC value of 0.12 in the AM Peak. During the PM Peak, the Construction Site Access Road (South) arm is estimated to have a 7.69 second delay per PCU and an RFC value of 0.05. As such, no capacity pressures are expected at the proposed application site access junction.

7. Framework Residential Mobility Management Plan

7.1 Introduction

This section of the Report presents the proposed residential development's Mobility Management Plan (MMP). The core part of the MMP is the Action Plan, which sets out a tailored range of measures to reduce the proposed development residents' car reliance and facilitate and encourage sustainable travel. The section also sets out the strategy for monitoring and updating the MMP.

7.2 MMP Status

As the site is not yet developed, this MMP is developed in 'framework' format.

7.3 MMP Objectives

Considering the site's accessible location, multiple employment and educational destinations within its walking, cycling, and public transport catchment and access to high-quality public transport services, the overarching objectives of MMP are to:

- promote sustainable travel choices (walking, cycling and public transport); and
- support car-free lifestyle among residents and visitors of the development.

7.4 MMP Mode Share Targets

Considering the SAPS commuter mode share data for the local area within which the proposed development is located (summarised within Section 3.7) as a baseline, the following Table 7.1 presents the mode share targets for the proposed development. In light of the site's locational attributes as presented in Section 3 of this Report, the mode share targets set out in this table are deemed both highly ambitious, however achievable.

Table 7.1 Baseline Mode Share Targets and MMP Targets

	On Foot	Bicycle	Public Transport	Car Driver	Car Passenger	Other	Remote work
Baseline (Census 2022)	4%	0%	3%	69%	3%	8%	13%
Target	10%	10%	10%	35%	7%	8%	20%

From the mode share targets set out in the preceding Table 7.1, it is apparent that the development is envisaged to achieve a higher level of travel sustainability compared to the surrounding area, with the following specific aspects to be noted:

- Walking and cycling mode share is targeted at a substantially increased level, reflecting the ambition to make us of the planned improvements to the regional cycle network and also to promote local employment rather than long-distance commuting.
- Public transport mode share is targeted at 10% (compared to the 3% baseline). While public transport services in vicinity of the application site are limited, it is deemed likely that wider policy aimed at discouraging car-based commuting by reducing access to car parking at the destination in urban areas will prompt some individuals to shift from driving to Cork City to travelling by bus/ coach – either directly or with a transfer to rail in Midleton.
- Proportion of remote workers is targeted 20% (compared to the 13% baseline) to indicate that the proposed development's location may be particularly suitable for individuals who would not be required to commute to larger employment centres on a daily basis.

Should the above-described sustainability oriented targets in resident travel be achieved, the resulting reduction in car use would put the development significantly below the local baseline, with a 35% car mode share (compared to the 69% Castlemartyr-wide).

Guided by the above targets, this MMP will focus on the promotion of sustainable modes of transport for commuting, with measures to achieve that outcome set out in the subsequent Section 7.5 of this Report.

7.5 Residential Travel Action Plan

To achieve the mode share targets set out in Table 7.1, the actions presented in Table 7.2 which follows have been identified.

Table 7.2 Framework Residential Mobility Management Action Plan

Action	Why	Who	When	Target: Resident/ Visitors
Coordination				
Appointment of a Residential Mobility Management Plan Co-Ordinator (MMPC)	Responsible for managing and ensuring that all actions are completed on time	The Applicant	Following planning approval	All
Public Transport				
Promote availability of public transport TaxSaver scheme	Alert residents to possibility and opportunity to engage with their respective employer	MMPC	Upon site occupation	Residents

Action	Why	Who	When	Target: Resident/ Visitors
• Sustainable Transport Information Pack during purchase or lease to include details of public transport services and stop locations • Travel information on resident's noticeboard (Travel Plan Information Board) to include public transport service details and stop locations • Link to Transport for Ireland Journey planner (http://www.transportforireland.ie/)	Inform residents of public transport options and opportunities	MMPC	Prior to site occupation	Residents
Cycling (Hard Measures Promoting Behavioural Change)				
Provision of secure, covered resident cycle parking for dwellings with no direct road access to private open space.	• Reduce car use and associated car parking demands • Facilitate cycle use	The Applicant	Prior to site occupation	Residents
Provision of visitor cycle parking spaces at several convenient locations throughout the site.	• Reduce car use and associated car parking demands • Facilitate cycle use	The Applicant	Prior to site occupation	Visitors
Cycling (Soft Measures Promoting Behavioural Change)				
Promote availability of Cycle to Work scheme	Alert residents to possibility and opportunity to engage with their respective employer	MMPC	Upon site occupation	Residents
• Provide information to residents including information regarding cycle parking facilities • Include information in residents' Sustainable Transport Information Pack	Establish active cycling culture	MMPC	Upon site occupation	Residents
Arrange tours of cycling facilities for new residents	Promote cycling	MMPC	Upon site occupation	Residents
Have a cycle repair station including a pump installed in or at each visitor cycle parking area	Support cycling	MMPC	Upon site occupation	All

Action	Why	Who	When	Target: Resident/ Visitors
Walking				
Promote walking as active travel in residents Sustainable Transport Information Pack	To promote fitness, well-being and reduce car dependency	MMPC	Upon site occupation	Residents
Taxi				
• Travel information on residents' noticeboards (Travel Plan Information Board (to include information on local taxi rank facilities and phone numbers for local taxi companies • Include information in residents' Sustainable Transport Information Pack	To accommodate residents and visitors access requirements	MMPC	As relevant in the future	All
General Active Travel Promotion				
• Incentivise Active Commuters	To motivate residents to make active travel a way of life	MMPC	Upon site occupation	Residents
Active Travel benefits information in residents' Sustainable Transport Information Pack and Travel Plan Information Board	Promote active alternatives – increasing the possibilities of reaching the premises	MMPC	Upon site occupation	Residents
Encourage residents to compare their route options http:// transportforireland.ie/	Making travel faster and easier	MMPC	Upon site occupation	Residents

Following occupation of the site and appointment of a MMPC, it is recommended that the Action Plan be further developed. The Action Plan will remain a 'living' document thereafter and should be updated periodically.

7.6 Monitoring and Update Strategy

It is important to monitor and update the MMP to ensure the actions are being implemented and that action is sustained over time. It also provides an opportunity for the effectiveness of actions to be assessed, and if required, new actions identified. The following steps are recommended to monitor progress:

- Informed by a residents and visitors travel survey, the MMP should be updated within 3 months of site occupation; and the Action Plan tailored to meet the specific requirements of its residents and visitors.
- A resident and visitor travel survey should be carried out annually thereafter, forming the baseline from which the MMP's future performance is measured and additional/ amended interventions identified.
- A review of the actions carried out or due should be carried out by the MMPC every six months. This should take the form of a memo to the apartment scheme's management company, documenting actions implemented, residents' feedback etc.

8. Summary and Conclusion

8.1 Summary

Transport Insights has been commissioned by Marshall Yards Development Company Limited to provide traffic engineering design advice and to prepare a Traffic and Transport Assessment (TTA) and a Mobility Management Plan (MMP) in relation to a proposed residential development at Castlemartyr, Co. Cork. The proposed development comprises the following:

- 150 no. residential units comprised of:
  - 60 no. 2-bed houses;
  - 82 no. 3-bed houses; and
  - 8 no. 4-bed houses.
- 248 no. car parking spaces including:
  - 240 no. resident spaces
  - 6 no. crèche parking spaces (incl. 1 no. wheelchair accessible space); and
  - 2 no. crèche drop-off spaces;
- 112 no. resident cycle parking spaces in the form of secure lockers to serve the 56 no. units without direct street access to their private open space;
- 28 no. visitor parking spaces to serve the residential component of the development; and
- 12 no. secure cycle parking spaces at the crèche.

Site Access

To enable vehicular access to the site, a new vehicular access/ egress from the N25 shall be created. The new site access junction will operate as a priority-controlled (STOP) junction, with a 6 metres wide site access arm. The junction has been designed in accordance with design advice contained within *DMURS*. In addition, a pedestrian only access off the footpath along the N25 southern edge will also be provided in the site's northwestern corner of the application site.

Internal Roads

Internal roads accessible to general traffic will only include a hierarchical network of streets with a formal carriageway and shared space areas, centred around a single main internal road leading to the site access junction.

Cycle Parking Provision Details

To meet the residents' cycle parking demand, 56 no. secure bicycle storage receptacles (with a capacity for 2 no. bikes each) will be provided on site in the front gardens of the 2-bedroom mid-terrace townhouse dwellings (house type E1), which have no direct street access to their private open space (i.e. back garden). As every other unit has direct access to a private area of open space, they are not

provided with secure bicycle parking receptacles. In addition, 28 no. visitor cycle parking spaces will be provided across the site, grouped into 2 no. blocks of 7 Sheffield stands each. Furthermore, 12 no. cycle parking spaces will be provided in a store at the on-site crèche, to be used by staff and parents/ visitors.

Car Parking Provision Details

All car parking demand associated with the proposed development shall be accommodated internally, with a total of 248 no. car parking spaces being proposed. Of those, 240 no. shall assigned to individual houses as resident spaces, with 1 no. space assigned to 2-bed units and 2 no. spaces assigned to 3- or 4-bed units. Of the remaining spaces, 6 no. (incl. 1 no. wheelchair accessible space) will utilised by crèche staff and 2 no. will be crèche drop-off spaces.

Pedestrian Infrastructure

Footpaths with the width of 1.8-3.0 metres will be provided throughout the site to accommodate pedestrian circulation requirements.

Trip Generation

The overall development is conservatively projected to generate an additional 64 no. and 62 no. two-way vehicular trips during the AM (07:00–08:00hrs) and PM (16:00–17:00hrs) network peak hours respectively, with its trip generation characteristics reflecting the development's specific locational and transport related characteristics, and related mobility strategy as set out in the Mobility Management Plan included in Section 7.

Trip Distribution

For the site access junction, it has been assumed that 80% of development-related traffic will distribute to/ from the west (i.e. Cork City direction), while the remaining 20% of traffic will distribute to/ from the east. For the N25/ R632/ Mogeely Road junction, also considered in this TTA, it has been assumed that the development traffic will follow the general traffic distribution patterns.

Traffic Impact

The Traffic impact of proposed development has been considered with respect to two key junctions in the application site's vicinity, namely:

- N25/ R632/ Mogeely Road junction; and
- N25/ Application Site Access Junction.

The initial assessment has considered the likely percentage increase in junction traffic following delivery of the proposed development, while a subsequent detailed assessment involved modelling of both above junctions.

8.2 Overall Conclusions

The proposed residential development at Gortnahomna More, Castlemartyr, Co. Cork has been subject to a comprehensive Traffic and Transport Assessment in accordance with guidance contained with Transport Infrastructure Ireland's *Traffic and Transport Assessment Guidelines* (May 2014). The assessment of its traffic impacts has been underpinned by comprehensive traffic survey data collection and trip generation analysis using the industry standard TRICS database and reflects its specific locational and on-site transport related infrastructure provision and mobility management measures. **The assessment has demonstrated that the proposed development will have no material impact on the performance of the road network within the site's vicinity.**

Appendix A Transport Briefing Note

Proposed Large-scale Residential Development at Gortnahomna More, Castlemartyr, Co. Cork Transport Briefing Note

Contract Number	C1091 2024
Topic	Traffic and Transport Briefing Note for a proposed LRD scheme on lands at Gortnahomna More, Castlemartyr, Co. Cork
Version Number	v1.2
Status	Final
Author	Jurek Gozdek
Reviewer	Eoin Munn
Date	25 April 2024

1. Introduction

Transport Insights (TI) has been appointed by Donnachadh O'Brien & Associates Consulting Engineers on behalf of Marshall Yards Development Company Ltd to provide traffic and transport consultancy support in relation to a proposed Large-scale Residential Development (LRD) on lands at Gortnahomna More, Castlemartyr, Co. Cork. The proposed development has also been referred to herein as the Gortnahomna LRD.

This Briefing Note sets out the scope of transport planning inputs, and the analytical approach underpinning the Traffic and Transport Assessment (TTA) Report which shall support a planning application to Cork County Council (CCC). It forms the basis for discussion with CCC's Traffic and Transport Department following the Section 247 Meeting.

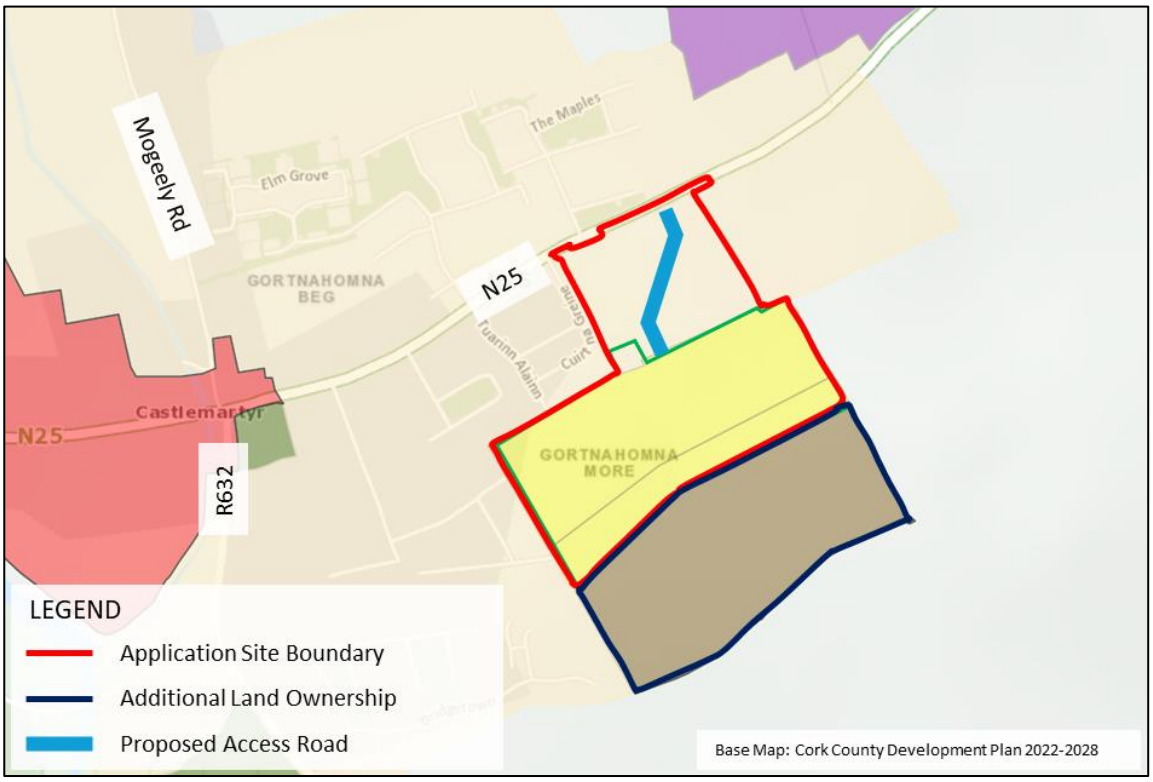
1.1. Site Location

The application site is located in the eastern part of Castlemartyr, Co. Cork and has been known under the name of Gortnahomna More. The subject lands are bounded by the N25 in the north, existing residential development in the west and northeast, and agricultural lands in the east and south. The overall Gortnahomna More lands is a ca. 8.1 ha greenfield site, which according to the *Cork County Development Plan 2022-2028* has been zoned as follows:

- Existing Residential: the northern part of the site (ca. 2.5 ha);
- Residential: central part of the site, including plots: CM-R-01 (4.10 ha) and CM-RAP-02 (1.37 ha); and
- Agricultural: southern part of the site, including plot: CM-AG-02 (5.47 ha – within Applicant's ownership however does not form part of the upcoming planning application).

This application relates to the central part of the Gortnahomna More site, zoned Residential, with an overall area of 5.47 ha. The overall lands and the extent of the proposed development within those lands are presented in Figure 1.1, which follows.

Figure 1.1 Development Site Location



1.2. Site Planning History

A planning application for development of the Gortnahomna More site was submitted to Cork County Council in April 2017 by Solas Partnership (Reg. Ref. 174624). The proposed development included 209 no. dwellings in the form of terraced, semi-detached and detached houses, in addition to ancillary crèche and 2 no. office units. The application was refused on the grounds related to deficiencies in the capacity of the wastewater treatment facilities and public water supply.

While the reasons for refusal of the above application were unrelated to transport, the CCC Traffic and Transport Department and Transport Infrastructure Ireland (TII) correspondence, in addition

to the Further Information Request issued in relation to that development have been reviewed. Based on the review, the following key items of consideration have emerged:

- Access junction off the N25 arrangement, with the junction required to be DMURS compliant, provided with a right-turn lane in agreement with TII, and subject to a Stage 1 Road Safety Audit (RSA);
- Continuous lighted footpaths to be provided connecting the development to the village core; and
- The development's impact on the 4-arm, signalised N25/ R632 Junction to be examined in detail.

The transport-related design and assessment activities in relation to the current proposed Gortnahomna LRD shall take cognisance of the above items.

1.3. Overview of Proposed Development

The draft proposed Gortnahomna LRD is to comprise of 197 no. residential units consisting of:

- 79 no. 2-bed houses;
- 108 no. 3-bed houses; and
- 10 no. 4-bed houses.

The proposed residential units will be accompanied by associated pedestrian, cycle, and car circulation and parking facilities (provided in accordance with appropriate *Development Plan* standards), in addition to a crèche designed to accommodate up to 60 no. children. Site layout has been elaborated upon in Section 1.5 of this note, with a draft layout graphic presented therein.

The development shall also include the construction of an access junction off the N25, comprising the widening of the road carriageway to accommodate a right-turning lane for movements from the west (i.e. from the direction of Cork City) into the development.

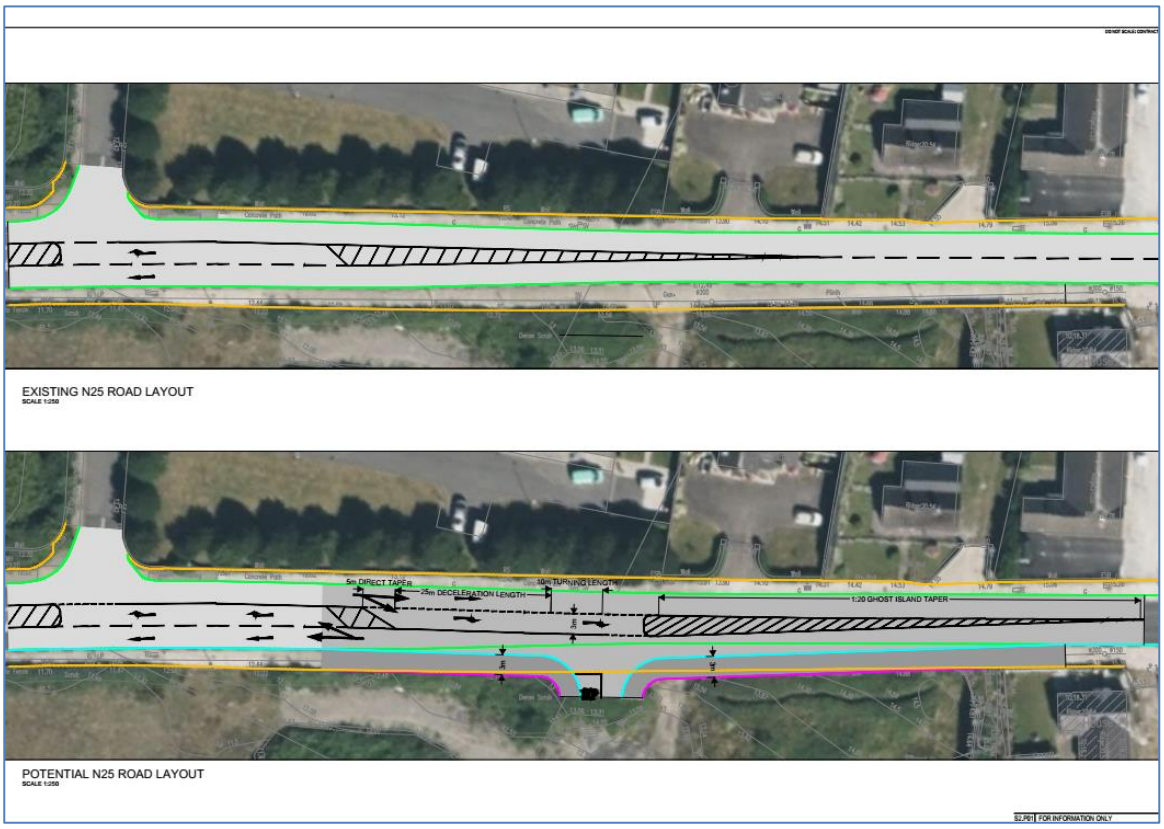
1.4. Site Access Arrangements

Vehicular access to the development will be via a new access junction off the N25. The junction shall be priority-controlled, with a segregated right-turning lane provided to segregate the vehicles turning into the site from the general eastbound traffic on the N25. A concept layout of the proposed junction, to be refined during the pre-application process, is presented in Figure 1.2 overleaf, with the existing road layout also presented for comparison.

In terms of active travel access, the access junction and internal roads shall feature pedestrian footpaths to connect with the existing pedestrian facilities on the N25.

Finally, the current draft proposed layout enables potential future provision of vehicular and/ or active travel connections to the lands to the west (i.e. existing residential estate) and south (existing agricultural plot), subject to agreement with CCC or relevant third parties as applicable. Location of the same is illustrated in Figure 1.3 in Section 1.5.

Figure 1.2 Existing N25 Layout and Proposed Site Access Junction



1.5. Site Layout

The proposed site layout is presented in Figure 1.3 (overleaf). The current draft site layout provides an overview of the proposed new vehicular site accesses, routes of the internal streets and footpaths and the general location of the various housing types and associated car parking facilities – details that shall be of primary relevance to transport and traffic related items of the upcoming LRD application. The internal site layout shall be further developed in accordance with the *Design Manual for Urban Roads and Streets (DMURS)* [DTTAS/ DoECLG, 2019], the *Sustainable Residential Development and Compact Settlements – Guidelines for Planning Authorities* [DoHLGH, 2024], and *Sustainable Urban Housing, Design Standards for New Apartments – Guidelines for Planning Authorities* [DoHLGH, 2023] guidance.

Figure 1.3 Proposed Development – Draft Site Layout*

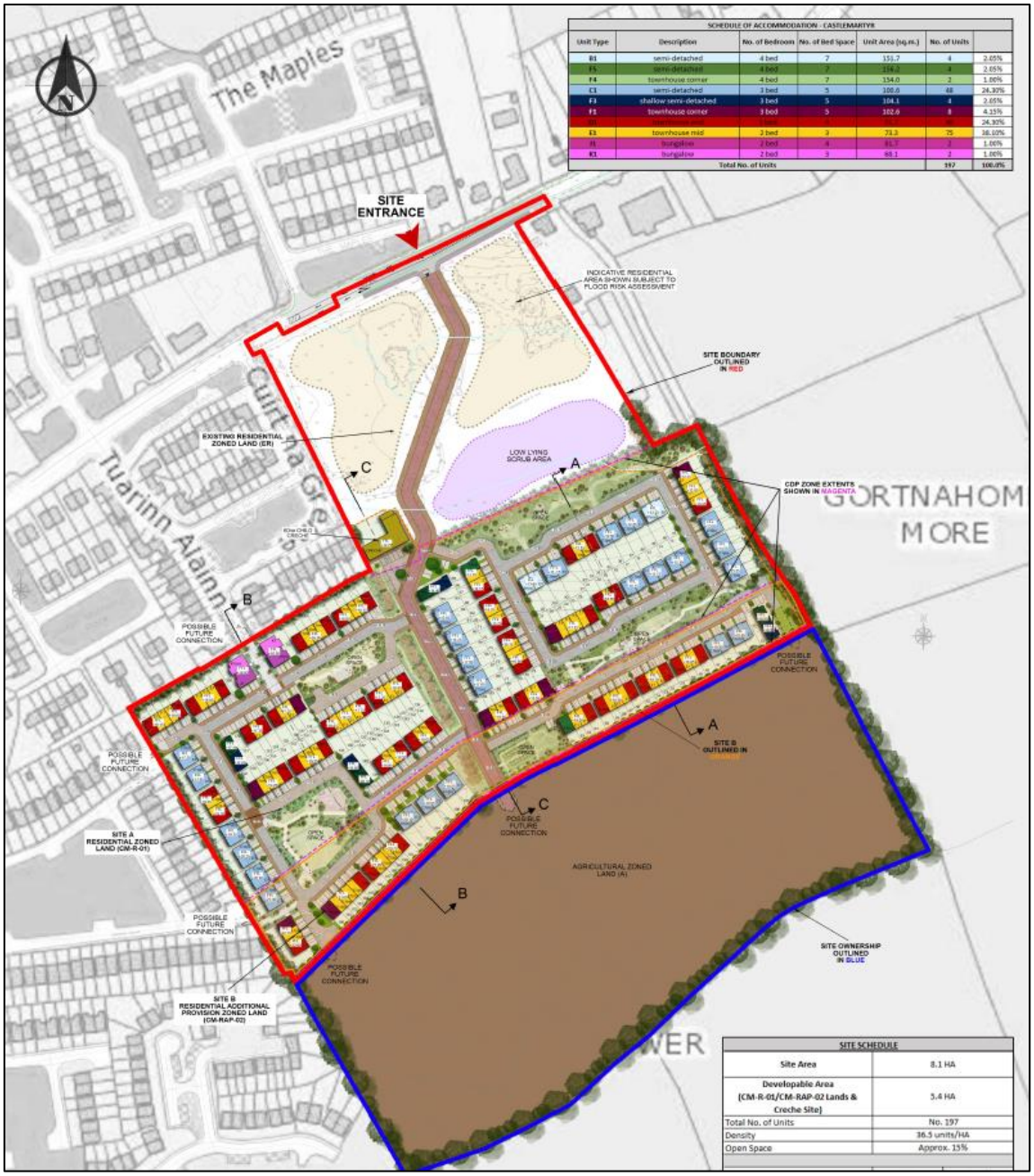


*Image courtesy of Deady Gahan Architects (drawing no. 23069_P_003), drawing status draft and subject to change.

1.6. Likely Development Trip Generation and Traffic Impact

Development trip generation and traffic characteristics will be forecast, with the related analytical outputs forming part of the TTA. The proposed assessment methodology shall accord with guidance included within Traffic and Transport Assessment Guidelines (TTA Guidelines, Transport Infrastructure Ireland, May 2014) and is set out in Section 2 of this Note.

2. Scope of Development Transport Inputs

2.1. Task 1 - Transport Scoping Note and LRD Meeting Request

Scoping with the CCC Traffic and Transport Department shall be undertaken (with this Transport Note issued to CCC) following the Section 247 meeting, to confirm the proposed transport assessment scope and approach. Based upon resulting feedback, a brief to the project planning and design team shall be made with regards to the outcome.

2.2. Task 2 - Site Assessment

A comprehensive site assessment shall be undertaken, during which a range of information will be gathered, including the following attributes:

- walking and cycling infrastructure in the vicinity of the application site;
- observations on the ongoing developments in the site's vicinity;
- availability and attractiveness of public transport (with existing and proposed bus stop locations informed by desktop research in advance of the site assessment); and
- observations of general traffic behaviour at key junctions (see Task 3) on the road network, including the extent of any queuing at junctions.

2.3. Task 3 - Traffic Survey Data Collection and Processing

To enable development traffic impact assessment, including junction traffic modelling, it is intended to undertake a 12-hour junction turning count (JTC) survey at the N25/R632/Mogeely signal-controlled junction. In addition, a JTC traffic survey shall also be undertaken adjacent to the proposed site access. The surveys shall be undertaken on a neutral weekday.

2.4. Task 4 - Preliminary Transport Engineering Design Advice

Preliminary transport engineering advice in relation to proposed traffic and transport aspects of this application shall be provided to the design team. Draft layouts drawings shall be reviewed in accordance with best practice, and advice provided in relation to carriageway widths, junction corner radii, car park aisle widths, parking bay dimensions (including accessible and electric charge), pedestrian circulation routes, and cycle parking locations and specifications. A swept path analysis for the largest vehicles to access the site (i.e. standard refuse truck and fire tender) shall also be undertaken to demonstrate access can be accommodated in accordance with best practice.

2.5. Task 5 – Development Traffic Impact Analysis

Traffic generated by the proposed development during the critical peak periods will be estimated using the unit trip rates derived from the TRICS trip generation database. The proposed development's traffic impacts shall be assessed with respect to its traffic generation outputs and revised baseline traffic data emerging from the Task 3 (factored as needed to reflect the development's current assumed year of opening and year of opening +5 and +15 years). The development's impact on the N25/R632/Mogeely signal-controlled junction shall be considered, in addition to the performance of the proposed new site access junction. In doing so, traffic modelling of those junctions will be undertaken using the industry standard LinSig and PICADY software, respectively.

2.6. Task 6 – Traffic and Transport Assessment Report

The outputs of the above tasks shall be summarised within a TTA Report and shall set out the proposed development's transport characteristics including existing transport infrastructure in its vicinity in addition to the potential impact of development related traffic on the surrounding local road network.

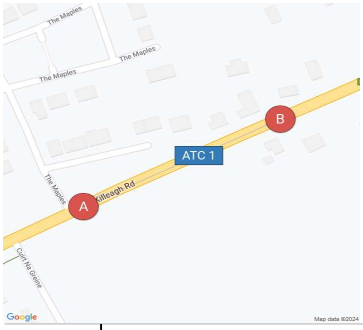
2.7. Task 7 – Framework Residential Travel Plan

To ensure the mobility requirements of the residents of the proposed development are addressed in a sustainable manner, without adversely impacting on the adjacent road network and local amenities, a framework Residential Travel Plan (RTP) shall be produced. To this end, both the developments' forecast mobility characteristics and the local land use and transport context shall be assessed to inform the setting of mode share targets for the development. An associated Action Plan provides a tailored set of measures developed to support the achievement of these targets.

3. Summary

This Transport Briefing Note summarises the scope of transport related inputs and related reporting proposed to accompany a planning application for a proposed residential development on lands at Gortnahomna More, Castlemartyr, Co. Cork. and is issued to CCC for information and feedback.

Appendix B Traffic Survey Data



IDASO

Survey Name: 24121 - Castlemartyr, Co. Cork ATC
Site: ATC 1
Location: N25 Killeagh Rd
Date: Tue 28-May-2024

	Northbound (A => B)								Southbound (B => A)							
TIME	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	12	2	0	4	0	18	23.2	0	1	1	2	0	0	4	5
00:15	0	10	0	1	0	0	11	11.5	0	3	3	0	0	0	6	6
00:30	0	7	0	0	1	0	8	9.3	0	2	1	1	0	1	5	6.5
00:45	0	5	0	1	0	0	6	6.5	0	0	3	0	0	0	3	3
H/TOT	0	34	2	2	5	0	43	50.5	0	6	8	3	0	1	18	20.5
01:00	0	6	0	0	0	0	6	6	0	2	0	0	0	0	2	2
01:15	0	4	0	0	0	0	4	4	0	1	2	0	0	0	3	3
01:30	0	1	0	0	0	0	1	1	0	4	0	0	0	0	4	4
01:45	0	1	2	1	0	0	4	4.5	0	2	1	1	0	0	4	4.5
H/TOT	0	12	2	1	0	0	15	15.5	0	9	3	1	0	0	13	13.5
02:00	0	1	2	0	0	0	3	3	0	2	0	0	0	0	2	2
02:15	0	4	0	2	0	0	6	7	0	0	1	1	0	1	3	4.5
02:30	0	0	0	2	1	0	3	5.3	0	0	0	0	0	0	0	0
02:45	0	2	1	0	0	0	3	3	0	1	1	1	0	0	3	3.5
H/TOT	0	7	3	4	1	0	15	18.3	0	3	2	2	0	1	8	10
03:00	0	0	1	2	1	0	4	6.3	0	2	3	0	0	0	5	5
03:15	0	1	0	0	2	1	4	7.6	0	2	0	0	1	0	3	4.3
03:30	0	1	3	0	0	0	4	4	0	5	0	0	0	0	5	5
03:45	0	0	4	0	0	0	4	4	0	5	0	2	1	0	8	10.3
H/TOT	0	2	8	2	3	1	16	21.9	0	14	3	2	2	0	21	24.6
04:00	0	0	2	0	1	0	3	4.3	0	5	4	0	2	0	11	13.6
04:15	0	1	3	3	1	0	8	10.8	0	14	2	0	1	0	17	18.3
04:30	1	1	3	2	2	0	9	12	0	6	7	0	2	0	15	17.6
04:45	0	3	1	2	1	0	7	9.3	0	3	3	0	3	0	9	12.9
H/TOT	1	5	9	7	5	0	27	36.4	0	28	16	0	8	0	52	62.4
05:00	0	6	4	4	2	2	18	24.6	0	13	2	1	0	0	16	16.5
05:15	0	2	0	1	2	0	5	8.1	0	17	10	1	0	0	28	28.5
05:30	0	6	1	6	2	1	16	22.6	1	29	11	3	2	0	46	49.5
05:45	0	2	2	3	3	0	10	15.4	1	38	15	4	3	0	61	66.3
H/TOT	0	16	7	14	9	3	49	70.7	2	97	38	9	5	0	151	160.8
06:00	0	6	9	7	2	2	26	34.1	0	63	38	3	6	0	110	119.3
06:15	0	22	9	3	3	2	39	46.4	2	94	37	9	2	0	144	149.9
06:30	0	26	5	5	6	0	42	52.3	0	118	45	8	3	1	175	183.9
06:45	0	25	18	4	4	2	53	62.2	0	127	44	6	3	0	180	186.9
H/TOT	0	79	41	19	15	6	160	195	2	402	164	26	14	1	609	640
07:00	1	22	32	3	4	2	64	72.1	0	154	18	1	0	2	175	177.5
07:15	1	29	31	5	1	1	68	72.2	1	117	21	6	1	4	150	157.7
07:30	0	37	34	7	1	2	81	87.8	0	116	22	5	1	0	144	147.8
07:45	0	38	15	10	5	1	69	81.5	0	113	14	7	2	0	136	142.1
H/TOT	2	126	112	25	11	6	282	313.6	1	500	75	19	4	6	605	625.1
08:00	0	41	28	8	3	0	80	87.9	1	112	23	5	2	0	143	147.5
08:15	0	48	22	16	3	1	90	102.9	0	104	19	9	3	0	135	143.4
08:30	0	54	30	12	5	2	103	117.5	0	99	21	9	5	0	134	145
08:45	1	54	14	4	4	2	79	87.6	0	76	36	6	5	1	124	134.5
H/TOT	1	197	94	40	15	5	352	395.9	1	391	99	29	15	1	536	570.4
09:00	0	24	12	9	5	2	52	65	1	60	13	5	1	2	82	87.2
09:15	0	40	27	12	2	0	81	89.6	0	83	31	9	6	3	132	147.3
09:30	0	38	25	12	4	1	80	92.2	2	93	18	12	2	0	127	134.4
09:45	0	44	23	14	6	0	87	101.8	0	91	22	6	3	3	125	134.9
H/TOT	0	146	87	47	17	3	300	348.6	3	327	84	32	12	8	466	503.8
10:00	0	38	17	3	4	1	63	70.7	0	65	31	8	5	2	111	123.5
10:15	0	54	15	7	6	1	83	95.3	1	71	18	7	7	1	105	118
10:30	0	50	11	12	8	2	83	101.4	0	62	21	9	6	3	101	116.3
10:45	0	52	14	6	7	0	79	91.1	2	60	24	11	6	2	105	119.1
H/TOT	0	194	57	28	25	4	308	358.5	3	258	94	35	24	8	422	476.9

11:00	0	67	17	14	5	0	103	116.5	0	58	28	7	7	1	101	114.6
11:15	1	45	14	5	5	1	71	80.4	0	64	18	12	6	0	100	113.8
11:30	0	59	23	16	11	2	111	135.3	0	64	19	5	7	2	97	110.6
11:45	0	59	17	14	4	1	95	108.2	0	53	20	4	10	2	89	106
H/TOT	1	230	71	49	25	4	380	440.4	0	239	85	28	30	5	387	445
12:00	0	58	15	10	8	0	91	106.4	1	72	35	13	5	1	127	140.4
12:15	0	63	33	15	3	1	115	127.4	0	60	16	7	8	0	91	104.9
12:30	0	52	17	8	5	0	82	92.5	0	61	19	3	7	0	90	100.6
12:45	0	71	26	9	6	0	112	124.3	0	77	21	7	10	2	117	135.5
H/TOT	0	244	91	42	22	1	400	450.6	1	270	91	30	30	3	425	481.4
13:00	0	64	24	6	6	1	101	112.8	0	84	25	7	4	4	124	136.7
13:15	1	78	13	7	5	4	108	121.4	0	72	17	5	4	1	99	107.7
13:30	1	69	14	13	1	2	100	109.2	0	52	25	8	2	1	88	95.6
13:45	0	75	17	12	5	2	111	125.5	0	64	20	6	7	2	99	113.1
H/TOT	2	286	68	38	17	9	420	468.9	0	272	87	26	17	8	410	453.1
14:00	0	72	14	6	3	0	95	101.9	0	73	21	8	4	1	107	117.2
14:15	0	75	30	11	5	1	122	135	1	73	30	7	11	0	122	139.2
14:30	0	74	16	5	4	0	99	106.7	0	52	19	5	3	4	83	93.4
14:45	0	71	9	15	7	0	102	118.6	2	57	22	4	5	1	91	99.3
H/TOT	0	292	69	37	19	1	418	462.2	3	255	92	24	23	6	403	449.1
15:00	0	84	14	16	3	0	117	128.9	0	59	23	3	1	3	89	94.8
15:15	0	101	15	12	6	4	138	155.8	1	67	23	6	5	1	103	112.9
15:30	0	88	24	9	7	0	128	141.6	0	73	15	8	2	1	99	106.6
15:45	2	79	10	11	3	0	105	113.2	0	51	25	7	4	4	91	103.7
H/TOT	2	352	63	48	19	4	488	539.5	1	250	86	24	12	9	382	418
16:00	0	73	14	5	10	1	103	119.5	1	61	33	9	1	1	106	112.2
16:15	0	88	13	14	6	1	122	137.8	2	61	15	9	5	1	93	103.8
16:30	1	114	15	15	4	2	151	165.1	0	68	27	11	4	0	110	120.7
16:45	0	113	21	9	6	2	151	165.3	1	75	20	7	3	0	106	112.8
H/TOT	1	388	63	43	26	6	527	587.7	4	265	95	36	13	2	415	449.5
17:00	0	93	20	13	3	2	131	143.4	0	59	29	8	3	0	99	106.9
17:15	0	92	19	8	3	0	122	129.9	0	74	26	7	4	0	111	119.7
17:30	0	109	9	14	4	2	138	152.2	0	66	24	2	1	0	93	95.3
17:45	1	101	21	9	3	2	137	146.8	0	66	19	6	1	2	94	100.3
H/TOT	1	395	69	44	13	6	528	572.3	0	265	98	23	9	2	397	422.2
18:00	2	101	11	11	3	1	129	138.2	0	54	21	4	2	1	82	87.6
18:15	1	100	7	8	2	1	119	126	1	54	26	10	1	0	92	97.7
18:30	0	108	13	8	3	0	132	139.9	1	42	26	2	0	0	71	71.4
18:45	0	98	15	12	3	1	129	139.9	0	43	16	3	3	0	65	70.4
H/TOT	3	407	46	39	11	3	509	544	2	193	89	19	6	1	310	327.1
19:00	0	85	14	10	3	0	112	120.9	1	43	14	0	0	0	58	57.4
19:15	1	86	10	7	1	2	107	113.2	0	40	17	3	0	0	60	61.5
19:30	0	64	7	8	2	0	81	87.6	0	34	15	1	1	0	51	52.8
19:45	0	69	11	3	2	0	85	89.1	0	31	10	0	1	0	42	43.3
H/TOT	1	304	42	28	8	2	385	410.8	1	148	56	4	2	0	211	215
20:00	0	51	3	2	3	0	59	63.9	1	26	16	1	2	1	47	50.5
20:15	0	50	4	2	1	1	58	61.3	0	32	7	3	1	0	43	45.8
20:30	0	54	8	5	0	0	67	69.5	0	48	19	0	1	1	69	71.3
20:45	0	35	6	1	1	0	43	44.8	0	23	8	0	2	0	33	35.6
H/TOT	0	190	21	10	5	1	227	239.5	1	129	50	4	6	2	192	203.2
21:00	0	40	4	1	0	0	45	45.5	0	38	16	3	3	0	60	65.4
21:15	0	27	6	0	0	1	34	35	0	44	14	3	3	0	64	69.4
21:30	0	21	4	1	0	1	27	28.5	0	30	8	0	0	0	38	38
21:45	0	30	3	0	0	0	33	33	0	22	9	1	2	0	34	37.1
H/TOT	0	118	17	2	0	2	139	142	0	134	47	7	8	0	196	209.9
22:00	0	27	6	1	2	0	36	39.1	0	18	7	2	1	0	28	30.3
22:15	0	17	4	0	0	0	21	21	0	11	4	0	1	0	16	17.3
22:30	1	19	2	0	1	0	23	23.7	0	12	5	0	1	0	18	19.3
22:45	0	16	1	1	0	0	18	18.5	0	10	3	0	0	1	14	15
H/TOT	1	79	13	2	3	0	98	102.3	0	51	19	2	3	1	76	81.9
23:00	0	18	8	2	0	0	28	29	0	10	7	1	1	1	20	22.8
23:15	0	10	1	0	1	0	12	13.3	0	3	2	1	0	0	6	6.5
23:30	0	10	0	0	0	1	11	12	0	3	5	1	0	0	9	9.5
23:45	0	6	0	1	1	0	8	9.8	0	3	3	0	0	1	7	8
H/TOT	0	44	9	3	2	1	59	64.1	0	19	17	3	1	2	42	46.8
24 TOT	16	4147	1064	574	276	68	6145	6849.2	25	4525	1498	388	244	67	6747	7310.2



IDASO

Survey Name: 24121 - Castlemartyr, Co. Cork
Site: Site 1
Location: N25/R632/Mogeely Road
Date: Tue 28-May-2024

Arm A - Killeagh Road
Arm B - R632
Arm C - Main Street
Arm D - Mogeely Road

	A => A									A => B									A => C									A => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	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
00:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	1	0	0	0	5	5	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	3	0	1	0	1	5	6.5	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	1	1	0	0	0	2	2	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	11	4	1	0	1	17	18.5	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	0	0	0	0	0	1	0	1	2.3
01:15	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	2	2	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	5	0	0	0	0	5	5	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	1	1	0	0	0	2	2	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	6	3	0	0	0	9	9	0	0	0	0	0	1	0	1	2.3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
02:15	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	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	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	1	0	1	0	0	2	2.5	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	3	1	3	0	0	7	8.5	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	6	0	0	0	0	6	6	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	4	0	0	1	0	5	6.3	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	4	0	0	0	0	4	4	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	5	0	1	1	0	7	8.8	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	19	0	1	2	0	22	25.1	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	8	1	0	2	0	11	13.6	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	10	1	1	2	0	14	17.1	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	14	1	0	2	0	17	19.6	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	10	0	0	3	0	13	16.9	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	42	3	1	9	0	55	67.2	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	14	1	0	0	0	15	15	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	24	4	0	0	0	28	28	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	3.5	0	1	38	8	1	2	0	50	52.5	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	1	45	5	3	2	0	56	59.5	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	2	121	18	4	4	0	149	155	0	0	2	0	0	0	0	2	2
06:00	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	86	19	0	6	0	111	118.8	0	0	1	0	0	0	0	1	1
06:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	2	119	18	3	5	0	147	153.8	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	1	6	7	0	0	139	30	2	3	0	174	178.9	0	0	1	0	0	0	0	1	1
06:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	147	38	3	6	0	194	203.3	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	1	17	18	0	2	491	105	8	20	0	626	654.8	0	0	4	0	0	0	0	4	4
07:00	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	1	6	7	0	0	125	32	4	1	0	162	165.3	0	0	2	0	0	0	0	2	2
07:15	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	130	25	10	5	2	172	185.5	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	114	22	4	10	1	151	167	0	0	1	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	110	25	5	4	1	145	153.7	1	0	5	0	0	0	0	6	5.2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	16	4	0	0	1	21	22	0	0	479	104	23	20	4	630	671.5	1	0	8	0	0	0	0	9	8.2
08:00	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	2	15	17	0	0	110	19	3	6	3	141	153.3	0	0	6	1	0	0	0	7	7
08:15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	104	26	2	6	0	138	146.8	0	0	0	0	0	1	0	1	2.3
08:30	0	0	0	0	0	0	0	0	0	0	0	10	2	1	0	1	14	15.5	0	0	125	18	6	4	2	155	165.2	0	0	4	0	0	0	0	4	4
08:45	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15	0	0	85	19	3	4	1	112	119.7	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	41	5	1	0	3	50	53.5	0	0	424	82	14	20	6	546	585	0	0	15	1	0	1	0	17	18.3
09:00	0	0	0	0	0	0	0	0	0	0	0	20	1	1	0	0	22	22.5	0	0	85	9	5	6	0	105	115.3	1	0	10	0	0	1	0	12	12.5
09:15	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	11	11	0	0	98	21	5	9	0	133	147.2	0	0	3	0	0	0	0	3	3
09:30	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	1	10	11	0	0	95	20	5	6	0	126	136.3	0	0	2	0	0	1	0	3	4.3
09:45	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	99	15	7	1	1	123	128.8	0	0	2	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	40	6	1	0	1	48	49.5	0	0	377	65	22	22	1	487	527.6	1	0	17	1	0	2	0	21	22.8
10:00	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7	0	0	75	15	6	4	2	102	112.2	0	0	0	0	0	1	0	1	2.3
10:15	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	1	9	10	0	3	80	10	5	10	1	109	123.7	0	0	0	1	0	0	0	1	1
10:30	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	79	11	5	6	1	102	113.3	0	0	3	1	2	1	0	7	9.3
10:45	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	3	65	15	6	5	2	96	105.7	0	0	2	0	0	1	0	3	4.3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	24	7	0	0	1	32	33	0	6	299	51	22	25	6	409	454.9	0	0	5	2	2	3	0	12	16.9
11:00	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9	0	0	83	15	3	11	0	112	127.8	0	0	1	1	0	1	0	3	4.3
11:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	71	11	8	5	1	96	107.5	0	0	2	0	0	2	0	4	6.6
11:30	0	0	0	0	0	0	0	0	0	0	0	7	2	1	0	0	10	10.5	0	0	74	10	3	10	2	99	115.5	0	0	6	0	1	0	0	7	7.5
11:45	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	7	7	0	0	63	9	4	9	1	86	100.7	0	0	5	1	0	1	0	7	8.3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	24	8	1	0	0	33	33.5	0	0	291	45	18	35	4	393	451.5	0	0	14	2	1	4	0	21	26.7
12:00	0	0	0	0	0	0	0	0	0	0	0	14	4	0	1	0	19	20.3	0	1	70	14	8	5	5	103	117.9	0	0	1	0	0	0	0	1	1
12:15	0	0	0	0	0	0	0	0	0	1	0	10	1	0	1	0	13	13.5	0	0	60	13	5	9	0	87	101.2	0	0	2	1	0	0	0	3	3
12:30	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	0	0	71	10	3	7	1	92	103.6	0	0	4	0	1	0	0	5	5.5
12:45	0	0	0	0	0	0	0	0	0	0	0	11	3	0	0	0	14	14	0	0	59	16	4	9	0	88	101.7	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	51	9	0	2	0	63	64.8	0	1	260	53	20	30	6	370	424.4	0	0	9	1	1	0	0	11	11.5
13:00	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	22	22	0	0	80	12	8	2	4	106	116.6	0	0	2	0	1	0	0	3	3.5
13:15	0	0	0	0	0	0	0	0	0	0	0	9	2	0	1	0	12	13.3	0	0	68	5	2	5	0	80	87.5	0	0	2	0	0	0	0	2	2
13:30	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	75	14	6	3	0	98	104.9	0	0	1	1	0	0	0	2	2
13:45	0	0	0	0	0	0	0	0	0	0	0	10	0	0	1	0	11	12.3	0	0	58	10	2	6	2	78	88.8	0	0	4	0	2	0	0	6	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	50	5	0	2	0	57	59.6	0	0	281	41	18	16	6	362	397.8	0	0	9	1	3	0	0	13	14.5
14:00	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	5.5	1	0	96	11	6	5	1	120	129.7	0	0	8	0	0	0	0	8	8
14:15	0	0	0	0	0	0	0	0	0	0	0	11	1	1	0	0	13	13.5	0	0	68	9	1	11	0	89	103.8	0	0	4	2	0	0	0	6	6
14:30	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16	0	0	64	11	8	3	0	86	93.9	0	0	2	0	2	0	0	4	5
14:45	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	4	2	64	8	5	5	1	89	94.6	1	0	2	3	0	0	0	6	5.2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	43	5	2	0	0	50	51	5	2	292	39	20	24	2	384	422	1	0	16	5	2	0	0	24	24.2
15:00	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	1	0	80	12	4	2	2	101	106.8	0	0	4	0	0	0	0	4	4
15:15	0	0	0	0	0	0	0	0	0	0	2	10	0	1	1	0	14	14.6	0	1	77	13	1	6	0	98	105.7	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13	0	0	67	13	5	3	1	89	96.4	0	0	0	1	0	0	0	1	1
15:45	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	65	15	5	4	3	92	102.7	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	2	46	3	1	1	0	53	53.6	1	1	289	53	15	15	6	380	411.6	0	0	5	1	0	0	0	6	6
16:00	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16	2	2	65	25	2	1	1	98	98.5	0	0	1	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	16	1	0	1	0	18	19.3	0	3	66	13	5	4	1	92	98.9	0	0	2	1	1	0	0	4	4.5
16:30	0	0	0	0	0	0	0	0	0	1	0	10	1	0	0	0	12	11.2	0	3	83	12	6	3	1	108	114.1	0	0	1	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	7	3	0	1	0	11	12.3	0	0	61	18	2	4	1	86	93.2	0	0	0	1	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	1	0	48	6	0	2	0	57	58.8	2	8	275	68	15	12	4	384	404.7	0	0	4	2	1	0	0	7	7.5
17:00	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13	2	0	81	22	1	4	0	110	114.1	0	1	3	1	0	0	0	5	4.4
17:15	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	0	73	10	1	4	0	88	93.7	0	0	3	0	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	92	13	3	2	0	110	114.1	0	0	2	0	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19	0	0	65	17	4	1	2	89	94.3	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	49	6	0	0	0	55	55	2	0	311	62	9	11	2	397	416.2	0	1	11	1	0	0	0	13	12.4
18:00	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15	0	0	64	8	1	2	1	76	80.1	0	0	3	0	0	0	0	3	3
18:15	0	0	0	0	0	0	0	0	0	1	0	9	1	0	0	0	11	10.2	0	0	63	12	3	2	0	80	84.1	0	0	3	0	0	0	0	3	3
18:30	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15	0	1	81	13	0	0	0	95	94.4	0	0	1	0	0	0	0	1	1
18:45	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	1	50	6	2	0	1	60	61.4	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	1	0	45	4	0	0	0	50	49.2	0	2	258	39	6	4	2	311	320	0	0	10	0	0	0	0	10	10
19:00	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	1	58	5	0	0	0	64	63.4	0	0	1	0	0	0	0	1	1
19:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	43	10	0	1	0	54	55.3	0	0	4	0	1	0	0	5	5.5
19:30	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	44	4	1	2	1	52	56.1	0	0	0	1	0	0	0	1	1
19:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	29	5	0	1	1	36	38.3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	0	37	37	0	1	174	24	1	4	2	206	213.1	0	0	5	1	1	0	0

B => A									B => B									B => C									B => D								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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	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	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	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	1	1	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	1	0	0	0	0	1	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	0	0	0	0	0	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	1	0	0	0	0	1	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	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	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	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	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	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	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	3	0	0	0	0	3	3	0	0	0	1	0	0	0	1	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	0	0	0	0	0	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	1	0	0	0	1	1	1
0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	1	0	0	1	0	2	3.3	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	11	11	0	0	3	0	0	0	0	3	3	3
0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	2	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	0	0	14	1	0	0	0	15	15	0	0	4	0	0	0	0	4	4	4
0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	36	6	0	0	0	42	42	0	0	8	0	0	1	0	9	10.3	4
0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	1	19	3	0	0	0	23	22.4	0	0	3	0	0	0	0	3	3	4
0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	30	8	0	0	0	38	38	0	0	2	2	0	0	0	4	4	4
0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	29	11	1	0	0	41	41.5	1	0	6	1	0	0	0	8	7.2	4
0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	43	10	2	1	0	56	58.3	0	0	4	3	1	0	0	8	8.5	4
0	0	11	4	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	1	121	32	3	1	0	158	160.2	1	0	15	6	1	0	0	23	22.7	4
0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	57	14	0	1	0	72	73.3	0	0	4	0	1	0	0	5	5.5	5
0	0	6	4	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	45	12	0	2	0	59	61.6	0	0	7	2	0	0	0	9	9	6
0	0	12	4	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	56	8	0	0	1	65	66	0	0	6	2	0	1	0	9	10.3	6
0	0	10	1	1	1	0	13	14.8	0	0	0	0	0	0	0	0	0	1	0	63	13	2	1	1	81	83.5	0	0	9	4	0	2	1	16	19.6	7
0	0	32	9	1	1	0	43	44.8	0	0	0	0	0	0	0	0	0	1	0	221	47	2	4	2	277	284.4	0	0	26	8	1	3	1	39	44.4	8
0	0	8	2	0	1	0	11	12.3	0	0	0	0	0	0	0	0	0	0	2	65	3	2	0	2	74	75.8	0	0	8	1	1	1	0	11	12.8	9
0	0	13	3	2	0	0	18	19	0	0	0	0	0	0	0	0	0	0	0	47	3	0	1	0	51	52.3	0	0	18	3	0	0	0	21	21	10
0	0	8	2	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	1	26	9	1	0	1	38	38.9	0	0	8	2	0	1	0	11	12.3	8
2	0	23	1	0	0	0	26	24.4	0	0	0	0	0	0	0	0	0	0	0	38	8	1	1	0	48	49.8	0	0	16	1	0	1	0	18	19.3	9
2	0	52	8	2	1	0	65	65.7	0	0	0	0	0	0	0	0	0	0	3	176	23	4	2	3	211	216.8	0	0	50	7	1	3	0	61	65.4	10
2	0	19	2	0	1	0	24	23.7	0	0	0	0	0	0	0	0	0	0	0	33	4	1	0	3	41	44.5	0	0	6	2	0	0	0	8	8	6
0	0	12	4	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	52	5	2	2	1	62	66.6	0	0	5	1	0	0	0	6	6	6
0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	43	4	1	1	0	49	50.8	0	0	4	0	1	0	0	5	5.5	5
0	0	4	2	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	30	2	1	4	1	38	44.7	0	0	3	1	0	0	0	4	4	4
2	0	44	9	1	1	0	57	57.2	0	0	0	0	0	0	0	0	0	0	0	158	15	5	7	5	190	206.6	0	0	18	4	1	0	0	23	23.5	14
0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	31	9	0	2	0	42	44.6	0	0	5	3	2	0	1	11	13	6
0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	33	4	1	1	1	40	42.8	0	0	4	0	0	0	0	4	4	4
0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	48	2	0	1	0	51	52.3	0	0	6	2	0	0	0	8	8	8
0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	1	30	5	1	1	0	38	39.2	1	0	2	1	1	0	0	5	4.7	5
0	0	28	4	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0	1	142	20	2	5	1	171	178.9	1	0	17	6	3	0	1	28	29.7	17
0	1	2	4	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0	0	0	38	6	1	2	0	47	50.1	0	0	5	0	0	0	0	5	5	5
0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	31	4	2	1	0	38	40.3	0	0	9	3	0	0	0	12	12	8
0	0	10	1	0	1	1	13	15.3	0	0	0	0	0	0	0	0	0	0	0	31	6	0	3	0	40	43.9	0	0	10	0	0	0	0	10	10	10
0	0	14	4	1	0	0	19	19.5	0	0	0	0	0	0	0	0	0	0	0	17	4	1	2	0	24	27.1	0	0	6	1	0	0	0	7	7	7
0	1	34	10	1	1	1	48	50.2	0	0	0	0	0	0	0	0	0	0	0	117	20	4	8	0	149	161.4	0	0	30	4	0	0	0	34	34	24
0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	25	4	2	3	0	34	38.9	0	0	3	2	0	0	0	5	5	5
0	0	14	2	1	0	0	17	17.5	0	0	0	0	0	0	0	0	0	0	0	27	4	1	0	0	32	32.5	0	0	4	0	0	0	0	4	4	4
0	0	9	1	0	0	1	11	12	0	0	0	0	0	0	0	0	0	0	0	31	3	2	0	0	36	37	0	0	4	0	0	0	0	4	4	4
0	0	7	1	1	1	0	10	11.8	0	0	0	0	0	0	0	0	0	0	0	31	5	1	0	0	37	37.5	0	0	5	1	0	0	0	6	6	6
0	0	38	5	2	1	1	47	50.3	0	0	0	0	0	0	0	0	0	0	0	114	16	6	3	0	139	145.9	0	0	16	3	0	0	0	19	19	19
0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	18	5	0	2	0	25	27.6	0	0	5	2	1	0	0	8	8.5	8
0	0	9	2	2	0	0	13	14	0	0	0	0	0	0	0	0	0	0	0	41	3	0	1	0	45	46.3	0	0	10	2	0	0	0	12	12	12
0	0	8	2	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	1	23	3	0	1	0	28	28.7	1	0	6	2	0	0	0	9	8.2	9
0	0	11	2	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0	0	31	6	2	3	0	42	46.9	0	0	6	3	0	0	0	9	9	9
0	0	33	6	3	0	0	42	43.5	0	0	0	0	0	0	0	0	0	0	1	113	17	2	7	0	140	149.5	1	0	27	9	1	0	0	38	37.7	28
0	0	11	4	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	27	5	1	2	0	35	38.1	0	0	7	2	1	0	0	10	10.5	7
1	0	14	1	0	0	0	16	15.2	0	0	0	0	0	0	0	0	0	0	0	29	5	1	1	0	36	37.8	0	0	4	0	0	0	0	4	4	4
0	0	26	0	0	2	0	28	30.6	0	0	0	0	0	0	0	0	0	0	1	36	3	0	1	0	41	41.7	1	0	5	2	0	1	0	9	9.5	9
0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	1	41	2	2	0	0	46	46.4	0	0	10	1	1	0	0	12	12.5	10
1	0	59	5	0	2	0	67	68.8	0	0	0	0	0	0	0	0	0	0	2	133	15	4	4	0	158	164	1	0	26	5	2	1	0	35	36.5	26
0	0	4	5	0	0	1	10	11	0	0	0	0	0	0	0	0	0	0	0	34	1	1	3	0	39	43.4	0	0	4	0	0	0	0	4	4	4
0	0	11	1	0	0	3	15	18	0	0	0	0	0	0	0	0	0	0	0	44	5	0	0	1	50	51	1	0	11	1	1	0	0	14	13.7	11
0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	31	5	1	1	0	38	39.8	0	0	5	0	1	1	0	7	8.8	7
0	0	11	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0	0	28	0	0	4	0	32	37.2	0	0	8	1	1	1	0	11	12.8	12
0	0	39	7	1	0	4	51	55.5	0	0	0	0	0	0	0	0	0	0	0	137	11	2	8	1	159	171.4	1	0	28	2	3	2	0	36	39.3	29
0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	26	7	1	2	0	36	39.1	0	0	4	2	0	0	0	6	6	6
0	0	7	1	0	1	1	10	12.3	0	0	0	0	0	0	0	0	0	0	0	27	8	2	0	1	38	40	0	0	11	1	0	0	0	12	12	12
0	0	9	5	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0	25	3	1	2	1	32	36.1	0	0	6	2	0	0	0	8	8	8
0	0	11	1	1	0	1	14	15.5	0	0	0	0	0	0	0	0	0	0	0	44	6	1	0	1	52	53.5	0	0	11	4	0	0	0	15	15	15
0	0	42	8	2	1	2	55	59.3	0	0	0	0	0	0	0	0	0	0	0	122	24	5	4	3	158	168.7	0	0	32	9	0	0	0	41	41	29
0	0	12	4	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	39	1	0	0	0	40	40	0	0	5	1	0	1	0	7	8.3	6
0	0	19	3	1	0	0	23	23.5	0	0	0	0	0	0	0	0	0	0	0	26	6	0	0	0	32	32	0	0	6	2	0	0	0	8	8	8
0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	1	26	0	1	0	0	28	27.7	0	0	6	2	0	0	0	8	8	8
0	0	15	0	1	1	0	17	18.8	0	0	0	0	0	0	0	0	0	0	0	20	3	0	0	0	23	23	0	0	6	4	0	0	0	10	10	10
0	0	58	10	2	1	0	71	73.3	0	0	0	0	0	0	0	0	0	1	0	111	10	1	0	0	123	122.7	0	0	23	9	0	1	0	33	34.3	33
2	0	12	1	1	0	0	16	14.9	0	0	0	0	0	0	0	0	0	0	0	46	3	1	0	0	50	50.5	0	1	10	2	0	0	0	13	12.4	13
0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	25	10	0	0	0	35	35	0	0	15	5	0	0	0	20	20	20
0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0	1	34	1	0	0	0	36	35.2	0	0	5	2	0	1	0	8	9.3	8
0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	26	2	0	0	0	28	28	3	0	4	2	0	0	0	9	6.6	9
2	0	46	3	2	0	0	53	52.4	0	0	0	0	0	0	0	0	0	1	0	131	16	1	0	0	149	148.7	3	1	34	11	0	1	0	50	48.3	50
0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	32	32	0	0	3	1	1	0	0	5	5.5	5
0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	20	3	0	0	0	23	23	0	0	4	1	0	0	0	5	5	5
0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	1	0	21	1	0	0	1	24	24.2	0	0	6	1	0	0	0	7	7	7
0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	23	2	0	0	0	25	25	1	0	1	1	0	0	0	3	2.2	3
0	0	34	1	0	0	0	35	35	0	0	0	0	0	0	0	0	0	1	0	96	6	0	0	1	104	104.2	1	0	14	4	1	0	0	20	19.7	20
0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	0	0	5	1	0	0	0	6	6	6
0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	40	1	0	0	0	41	41	0	0	5	0	0	0	0	5	5	5
0	0	6	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0	0	30	1	0	0	0	31	31	0	0	21	0	0	0	0	21	21	21
0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	32	5	0	0	0	37	37	0	0	8	1	0	1	0	10	11.3	10
0	0	24	3	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0	0	0	118	7	0	0	0	125	125	0	0	39	2	0	1	0	42	43.3	42
0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	24	1	0	0	0	25	25	1	0	8	1	0	0	0	10

C => A									C => B									C => C									C => D								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	13	1	0	2	0	16	18.6	0	0	5	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	11	1	0	0	0	12	12	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	6	1	1	1	0	9	10.8	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	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	0	0	0	0	0	0	0	0	0
0	0	35	4	1	3	0	43	47.4	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	3	1	0	0	0	4	4	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	4	0	0	0	0	4	4	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	3	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
0	0	2	1	0	1	0	4	5.3	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	12	2	0	1	0	15	16.3	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
0	0	3	0	1	0	0	4	4.5	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0
0	0	11	1	2	1	0	15	17.3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	2	2	0	1	0	5	6.3	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	0	0	0	1	2	0	3	6.1	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	2	0	0	2	0	4	6.6	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	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	6	2	1	5	0	14	21	0	0	3	0	0	0	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	2	0	2	4.6	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	1	0	3	2	0	6	10.1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	2	2	0	3	0	8	11.3	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	0	4	2	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	1	7	4	3	8	0	23	34.3	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	6	3	4	3	0	16	21.9	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	3	1	2	2	1	9	13.6	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	6	3	2	2	0	13	16.6	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	3	3	0	3	0	9	12.9	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	18	10	8	10	1	47	65	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
0	0	11	6	3	4	0	24	30.7	0	0	4	1	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	15	6	1	5	1	28	36	0	0	1	1	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	19	10	1	7	0	37	46.6	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
0	0	30	8	6	4	1	49	58.2	0	0	10	3	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	75	30	11	20	2	138	171.5	0	0	22	6	1	0	1	30	31.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	1	40	10	5	5	0	61	69.4	0	0	15	4	1	0	0	20	20.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	45	14	2	7	1	69	80.1	0	0	14	6	1	1	0	22	23.8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
0	0	42	16	4	4	1	67	75.2	0	0	6	7	2	0	0	15	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
0	0	41	22	3	4	2	72	80.7	0	0	14	8	1	3	0	26	30.4	0	0	0	0	0	0	0	0	0	0	0	4	1	0	1	0	6	7.3
0	1	168	62	14	20	4	269	305.4	0	0	49	25	5	4	0	83	90.7	0	0	0	0	0	0	0	0	0	0	0	9	2	0	1	0	12	13.3
0	0	54	18	1	3	2	78	84.4	0	0	11	6	1	1	2	21	24.8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	59	14	5	9	0	87	101.2	0	0	13	6	1	1	0	21	22.8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	72	13	6	5	3	99	111.5	0	0	23	3	1	2	1	30	34.1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3.8
1	0	51	9	1	4	4	70	78.9	0	0	25	7	1	3	0	36	40.4	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10
1	0	236	54	13	21	9	334	376	0	0	72	22	4	7	3	108	122.1	0	0	0	0	0	0	0	0	0	0	0	12	2	1	1	0	16	17.8
0	0	45	11	4	9	0	69	82.7	0	0	18	2	0	2	0	22	24.6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	48	11	5	6	2	72	84.3	0	0	11	3	1	2	0	17	20.1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
0	0	44	15	2	9	1	71	84.7	0	0	19	5	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
0	0	46	15	2	11	0	74	89.3	0	0	13	4	0	3	0	20	23.9	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
0	0	183	52	13	35	3	286	341	0	0	61	14	1	7	0	83	92.6	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16
0	0	42	10	3	4	0	59	65.7	0	0	28	4	3	1	0	36	38.8	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	5	4.4
0	0	50	8	3	4	2	67	75.7	0	0	19	1	0	1	0	21	22.3	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
0	0	55	11	6	7	2	81	95.1	0	0	34	4	1	1	0	40	41.8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	4	57	11	1	7	0	80	87.2	0	0	0	30	8	2	3	0	43	47.9	0	0	0	0	0	0	0	0	0	0	0	5	2	1	0	0	8	8.5
0	4	204	40	13	22	4	287	323.7	0	0	111	17	6	6	0	140	150.8	0	0	0	0	0	0	0	0	0	0	0	1	14	5	1	0	0	21	20.9
0	0	76	12	1	4	2	95	102.7	0	0	28	3	2	1	0	34	36.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	1	42	7	3	8	1	62	74.3	0	0	21	2	0	4	1	28	34.2	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	1	10	11
0	1	63	15	4	14	1	98	118.6	0	0	33	1	0	3	0	37	40.9	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5
0	0	60	14	5	6	1	86	97.3	0	0	24	3	3	1	0	31	33.8	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
0	2	241	48	13	32	5	341	392.9	0	0	106	9	5	9	1	130	145.2	0	0	0	0	0	0	0	0	0	0	0	13	4	1	0	1	19	20.5
0	0	65	11	3	11	1	91	107.8	0	0	31	7	1	0	0	39	39.5	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
0	0	67	22	6	8	1	104	118.4	0	0	27	10	1	0	1	39	40.5	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
0	0	58	12	2	6	0	78	86.8	0	0	28	2	1	3	0	34	38.4	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
0	0	70	8	7	9	1	95	111.2	0	0	33	3	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	260	53	18	34	3	368	424.2	0	0	119	22	4	4	1	150	158.2	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	21	21
0	0	72	5	2	11	2	92	109.3	1	0	31	5	3	0	0	40	40.7	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
0	0	79	14	5	6	0	104	114.3	0	0	43	6	1	2	1	53	57.1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
1	1	78	12	5	2	1	100	104.7	0	0	46	1	0	1	0	48	49.3	0	0	0	0	0	0	0	0	0	0	0	4	4	0	1	0	9	10.3
0	1	72	16	5	5	1	100	109.4	0	1	27	10	2	1	0	41	42.7	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
1	2	301	47	17	24	4	396	437.7	1	1	147	22	6	4	1	182	189.8	0	0	0	0	0	0	0	0	0	0	0	18	5	0	1	0	24	25.3
0	0	71	15	2	4	0	92	98.2	0	0	35	1	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5
0	0	89	11	5	6	1	112	123.3	0	0	19	2	1	1	0	23	24.8	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
0	0	69	14	1	2	1	87	91.1	0	1	27	7	2	2	0	39	42	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
0	0	82	17	5	8	0	112	124.9	0	0	33	11	0	2	1	47	50.6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
0	0	311	57	13	20	2	403	437.5	0	1	114	21	4	6	1	147	157.2	0	0	0	0	0	0	0	0	0	0	0	16	1	1	0	0	18	18.5
0	0	88	15	8	2	1	114	121.6	0	0	28	3	2	2	0	35	38.6	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	0	5	6.3
0	1	109	17	1	6	1	135	143.7	0	0	38	1	3	0	0	42	43.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	94	13	3	9	1	120	134.2	0	0	35	4	0	2	0	41	43.6	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
0	1	82	12	2	3	1	101	106.3	0	0	21	3	1	2	0	27	30.1	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	6.5
0	2	373	57	14	20	4	470	505.8	0	0	122	11	6	6	0	145	155.8	0	0	0	0	0	0	0	0	0	0	0	14	3	1	1	0	19	20.8
0	0	74	7	2	12	1	96	113.6	0	0	37	1	1	0	3	42	45.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4	5
0	0	92	20	3	6	2	123	134.3	0	0	32	2	0	0	1	35	36	0	0	0	0	0	0	0	0	0	0	0	5	0	0	1	1	7	9.3
0	3	120	14	5	3	0	145	149.6	0	0	28	3	3	0	0	34	35.5	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
0	0	104	22	0	5	0	131	137.5	0	0	27	22	0	5	0	54	60.5	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5
0	3	390	63	10	26	3	495	535	0	0	124	28	4	5	4	165	177.5	0	0	0	0	0	0	0	0	0	0	0	14	1	1	1	2	19	22.8
0	0	107	18	6	7	1	139	152.1	0	0	43	0	0	0	0	43	43	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
0	0	87	13	2	3	1	106	111.9	0	0	42	7	0	1	0	50	51.3	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
0	0	118	21	4	2	2	147	153.6	0	1	32	6	0	0	0	39	38.4	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
1	0	117	15	3	3	0	139	143.6	0	0	35	6	0	0	0	41	41	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
1	0	429	67	15	15	4	531	561.2	0	1	152	19	0	1	0	173	173.7	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20
0	0	107	12	0	3	1	123	127.9	0	1	43	4	0	0	0	48	47.4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
0	1	98	13	0	2	1	115	118	0	0	28	8	1	0	1	38	39.5	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
0	1	122	9	2	4	1	139	145.6	1	1	52	7	0	0	0	61	59.6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	6	7
0	0	109	20	1	4	0	134	139.7	0	0	51	3	1	0	0	55	55.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	2	436	54	3	13	3	511	531.2	1	2	174	22	2	0	1	202	202	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	1	15	16
0	0	101	14	1	2	0	118	121.1	0	0	41	5	0	0	0	46	46	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	1	89	13	1	1	2	107	110.2	0	0	44	5	0	0	0	49	49	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
0	0	69	12	1	1	0	83	84.8	0	0	35	4	0	0	0	39	39	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
0	0	70	7	2	3	0	82	86.9	0	0	36	4	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
0	1	329	46	5	7	2	390	403	0	0	156	18	0	0	0	174	174	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16
0	0	61	9	0	2	1	73	76.6	0	0	43	4	0	0	0	47	47	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
0	0	45	6	2	1	0	54	56.3	0	0	22	3	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
0	0	68	7	0	0	0	75	75	0	0	37	1	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
0	0	46	1	1	1	1	50	52.8	0	0	30	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7
0	0	220	23	3	4	2	252	260.7	0	0	132	8	0	0	0	140	140	0	0	0	0	0	0	0	0	0	0	0	18	3	0	0	0	21	21
0	0	41	3	1	0	0

D => A									D => B									D => C									D => D								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	1	2.3	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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

Appendix C TRICS Unit Trip Generation Rates

Calculation Reference: AUDIT-710101-240614-0606

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	BN	BARNET	1 days
02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	1 days
	KC	KENT	1 days
	MW	MEDWAY	1 days
	SC	SURREY	2 days
	WS	WEST SUSSEX	4 days
03	**SOUTH WEST**		
	GS	GLOUCESTERSHIRE	1 days
	SM	SOMERSET	2 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	3 days
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
	NM	WEST NORTHAMPTONSHIRE	1 days
	NN	NORTH NORTHAMPTONSHIRE	1 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	BY	BARNSLEY	1 days
	LS	LEEDS	1 days
	SE	SHEFFIELD	1 days
08	**NORTH WEST**		
	AC	CHESHIRE WEST & CHESTER	2 days
	GM	GREATER MANCHESTER	1 days
09	**NORTH**		
	DH	DURHAM	1 days
12	**CONNAUGHT**		
	CS	SLIGO	2 days
14	**LEINSTER**		
	LU	LOUTH	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: No of Dwellings
Actual Range: 8 to 1882 (units:)
Range Selected by User: 4 to 4334 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 14/11/23

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

Selected survey days:

Monday	4 days
Tuesday	9 days
Wednesday	7 days
Thursday	10 days
Friday	6 days

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

Selected survey types:

Manual count	34 days
Directional ATC Count	2 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:

Neighbourhood Centre (PPS6 Local Centre)	36

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

Selected Location Sub Categories:

Residential Zone	7
Village	29

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	10 days	- Selected
Servicing vehicles Excluded	44 days	- Selected

Secondary Filtering selection:

Use Class:

C3	36 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	4 days
1,001 to 5,000	18 days
5,001 to 10,000	8 days
10,001 to 15,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,000 or Less	2 days
5,001 to 25,000	2 days
25,001 to 50,000	8 days
50,001 to 75,000	6 days
75,001 to 100,000	4 days
100,001 to 125,000	2 days
125,001 to 250,000	8 days
250,001 to 500,000	1 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	20 days
1.6 to 2.0	7 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	14 days
No	22 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	35 days
2 Poor	1 days

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

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

LIST OF SITES relevant to selection parameters

1 **AC-03-A-05** **SEMI-DETACHED & TERRACED** **CHESHIRE WEST & CHESTER**
MEADOW DRIVE
NORTHWICH
BARNTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 40
Survey date: FRIDAY *30/04/21* *Survey Type: MANUAL*

2 **AC-03-A-06** **DETACHED HOUSES** **CHESHIRE WEST & CHESTER**
COMMON LANE
NEAR CHESTER
WAVERTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 99
Survey date: FRIDAY *29/04/22* *Survey Type: MANUAL*

3 **BN-03-A-04** **MIXED HOUSES & FLATS** **BARNET**
SWEETS WAY
WHETSTONE

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 231
Survey date: TUESDAY *21/09/21* *Survey Type: MANUAL*

4 **BY-03-A-01** **BUNGALOWS & DETACHED** **BARNSLEY**
CHURCH LANE
NEAR BARNSLEY
WORSBROUGH
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 19
Survey date: WEDNESDAY *09/09/20* *Survey Type: MANUAL*

5 **CA-03-A-06** **MIXED HOUSES** **CAMBRIDGESHIRE**
CRAFT'S WAY
NEAR CAMBRIDGE
BAR HILL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 207
Survey date: FRIDAY *22/06/18* *Survey Type: MANUAL*

6 **CA-03-A-07** **MIXED HOUSES** **CAMBRIDGESHIRE**
FIELD END
NEAR ELY
WITCHFORD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 32
Survey date: THURSDAY *27/05/21* *Survey Type: MANUAL*

7 **CA-03-A-08** **DETACHED & SEMI-DETACHED** **CAMBRIDGESHIRE**
GIDDING ROAD
SAWTRY

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 83
Survey date: THURSDAY *13/10/22* *Survey Type: MANUAL*

8 **CS-03-A-03** **MIXED HOUSES** **SLIGO**
TOP ROAD
STRANDHILL
STRANDHILL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 30
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **CS-03-A-04** **DETACHED & SEMI-DETACHED** **SLIGO**
R292
STRANDHILL

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 63
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

10 **DH-03-A-02** **MIXED HOUSES** **DURHAM**
LEAZES LANE
BISHOP AUCKLAND
ST HELEN AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

11 **ES-03-A-06** **MIXED HOUSES** **EAST SUSSEX**
BISHOPS LANE
RINGMER

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 12
Survey date: WEDNESDAY *16/06/21* *Survey Type: MANUAL*

12 **GM-03-A-11** **TERRACED & SEMI-DETACHED** **GREATER MANCHESTER**
RUSHFORD STREET
MANCHESTER
LEVENSHULME
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 37
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

13 **GS-03-A-02** **DETACHED HOUSES** **GLOUCESTERSHIRE**
OAKRIDGE
NEAR GLOUCESTER
HIGHNAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 40
Survey date: FRIDAY *23/04/21* *Survey Type: MANUAL*

14 **HC-03-A-32** **MIXED HOUSES & FLATS** **HAMPSHIRE**
GREEN LANE
FARNHAM
WEYBOURNE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 105
Survey date: THURSDAY *29/06/23* *Survey Type: MANUAL*

15 **KC-03-A-08** **MIXED HOUSES** **KENT**
MAIDSTONE ROAD
CHARING

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 159
Survey date: TUESDAY *22/05/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

16 **LE-03-A-02** **DETACHED & OTHERS** **LEICESTERSHIRE**
MELBOURNE ROAD
IBSTOCK

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 85
Survey date: THURSDAY *28/06/18* *Survey Type: MANUAL*

17 **LS-03-A-01** **MIXED HOUSING** **LEEDS**
SPRING VALLEY CRESCENT
LEEDS
BRAMLEY
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 46
Survey date: WEDNESDAY *21/09/16* *Survey Type: MANUAL*

18 **LU-03-A-01** **TERRACED & SEMI-DETACHED** **LOUTH**
RATHMULLAN ROAD
DROGHEDA

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 111
Survey date: TUESDAY *21/09/21* *Survey Type: MANUAL*

19 **MW-03-A-01** **DETACHED & SEMI-DETACHED** **MEDWAY**
ROCHESTER ROAD
NEAR CHATHAM
BURHAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 8
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

20 **NF-03-A-21** **MIXED HOUSES & FLATS** **NORFOLK**
SIR ALFRED MUNNINGS RD
NEAR NORWICH
COSTESSEY
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 1882
Survey date: TUESDAY *13/10/20* *Survey Type: DIRECTIONAL ATC COUNT*

21 **NF-03-A-27** **MIXED HOUSES & FLATS** **NORFOLK**
YARMOUTH ROAD
NEAR NORWICH
BLOFIELD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 93
Survey date: THURSDAY *16/09/21* *Survey Type: MANUAL*

22 **NF-03-A-44** **MIXED HOUSES** **NORFOLK**
MILL LANE
NEAR NORWICH
HORSFORD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 125
Survey date: WEDNESDAY *21/09/22* *Survey Type: DIRECTIONAL ATC COUNT*

23 **NM-03-A-02** **DETACHED & SEMI-DETACHED** **WEST NORTHAMPTONSHIRE**
HARLESTONE ROAD
NEAR NORTHAMPTON
CHAPEL BRAMPTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 47
Survey date: TUESDAY *20/10/20* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

24 **NN-03-A-01** **MIXED HOUSES & FLATS** **NORTH NORTHAMPTONSHIRE**
MAIN STREET
NEAR WELLINGBOROUGH
LITTLE HARROWDEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 44
Survey date: TUESDAY *20/10/20* *Survey Type: MANUAL*

25 **SC-03-A-09** **MIXED HOUSES & FLATS** **SURREY**
AMLETS LANE
CRANLEIGH

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 136
Survey date: TUESDAY *24/05/22* *Survey Type: MANUAL*

26 **SC-03-A-10** **MIXED HOUSES** **SURREY**
GUILDFORD ROAD
ASH

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 32
Survey date: WEDNESDAY *14/09/22* *Survey Type: MANUAL*

27 **SE-03-A-01** **DETACHED & BUNGALOWS** **SHEFFIELD**
MANOR ROAD
NEAR SHEFFIELD
WALES
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 25
Survey date: THURSDAY *10/09/20* *Survey Type: MANUAL*

28 **SF-03-A-06** **DETACHED & SEMI-DETACHED** **SUFFOLK**
BURY ROAD
KENTFORD

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 38
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

29 **SF-03-A-08** **MIXED HOUSES** **SUFFOLK**
STANNINGFIELD ROAD
NEAR BURY ST EDMUNDS
GREAT WHELNETHAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 34
Survey date: WEDNESDAY *16/09/20* *Survey Type: MANUAL*

30 **SM-03-A-02** **MIXED HOUSES** **SOMERSET**
HYDE LANE
NEAR TAUNTON
CREECH SAINT MICHAEL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 42
Survey date: TUESDAY *25/09/18* *Survey Type: MANUAL*

31 **SM-03-A-03** **MIXED HOUSES** **SOMERSET**
HYDE LANE
NEAR TAUNTON
CREECH ST MICHAEL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 41
Survey date: TUESDAY *25/09/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

32 **WM-03-A-04** **TERRACED HOUSES** **WEST MIDLANDS**
OSBORNE ROAD
COVENTRY
EARLSDON
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 39
Survey date: MONDAY *21/11/16* *Survey Type: MANUAL*

33 **WS-03-A-07** **BUNGALOWS** **WEST SUSSEX**
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

34 **WS-03-A-16** **DETACHED & SEMI-DETACHED** **WEST SUSSEX**
BRACKLESHAM LANE
BRACKLESHAM BAY

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 58
Survey date: WEDNESDAY *09/11/22* *Survey Type: MANUAL*

35 **WS-03-A-18** **MIXED HOUSES & FLATS** **WEST SUSSEX**
LONDON ROAD
HASSOCKS

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 156
Survey date: MONDAY *15/05/23* *Survey Type: MANUAL*

36 **WS-03-A-21** **MIXED HOUSES** **WEST SUSSEX**
HILLAND ROAD
BILLINGSHURST

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 480
Survey date: THURSDAY *09/11/23* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	36	135	0.070	36	135	0.248	36	135	0.318
08:00 - 09:00	36	135	0.134	**36**	**135**	**0.292**	**36**	**135**	**0.426**
09:00 - 10:00	36	135	0.122	36	135	0.152	36	135	0.274
10:00 - 11:00	36	135	0.107	36	135	0.121	36	135	0.228
11:00 - 12:00	36	135	0.118	36	135	0.129	36	135	0.247
12:00 - 13:00	36	135	0.130	36	135	0.133	36	135	0.263
13:00 - 14:00	36	135	0.132	36	135	0.124	36	135	0.256
14:00 - 15:00	36	135	0.149	36	135	0.158	36	135	0.307
15:00 - 16:00	36	135	0.204	36	135	0.151	36	135	0.355
16:00 - 17:00	36	135	0.231	36	135	0.147	36	135	0.378
17:00 - 18:00	**36**	**135**	**0.273**	36	135	0.142	36	135	0.415
18:00 - 19:00	36	135	0.222	36	135	0.136	36	135	0.358
19:00 - 20:00	1	231	0.091	1	231	0.091	1	231	0.182
20:00 - 21:00	1	231	0.108	1	231	0.065	1	231	0.173
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.091			2.089			4.180

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.*

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	8 - 1882 (units:)
Survey date date range:	01/01/16 - 14/11/23
Number of weekdays (Monday-Friday):	36
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	18
Surveys manually removed from selection:	0

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

Appendix D Traffic Modelling Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
© Copyright TRL Limited, 2019

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

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 20240619 Site Access PICADY Model.j9
Path: C:\Users\NarendraJillelamudi\Transport Insights\TI - Projects 2024\C1091 2024 DOBA Glenveagh Castlemartyr LRD\Modelling and Analysis\Modelling
Report generation date: 24/06/2024 11:49:21

«Do Somethinng YoO+15 (2041), PM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do Somethinng YoO (2026)									
Stream B-AC	D1	0.1	9.37	0.11	A	D2	0.0	7.32	0.04	A
Stream C-AB		0.0	7.55	0.04	A		0.1	6.31	0.06	A
	Do Somethinng YoO+5 (2031)									
Stream B-AC	D3	0.1	9.90	0.12	A	D4	0.0	7.49	0.05	A
Stream C-AB		0.0	7.79	0.04	A		0.1	6.35	0.06	A
	Do Somethinng YoO+15 (2041)									
Stream B-AC	D5	0.1	10.55	0.12	B	D6	0.0	7.69	0.05	A
Stream C-AB		0.0	8.07	0.04	A		0.1	6.39	0.07	A

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

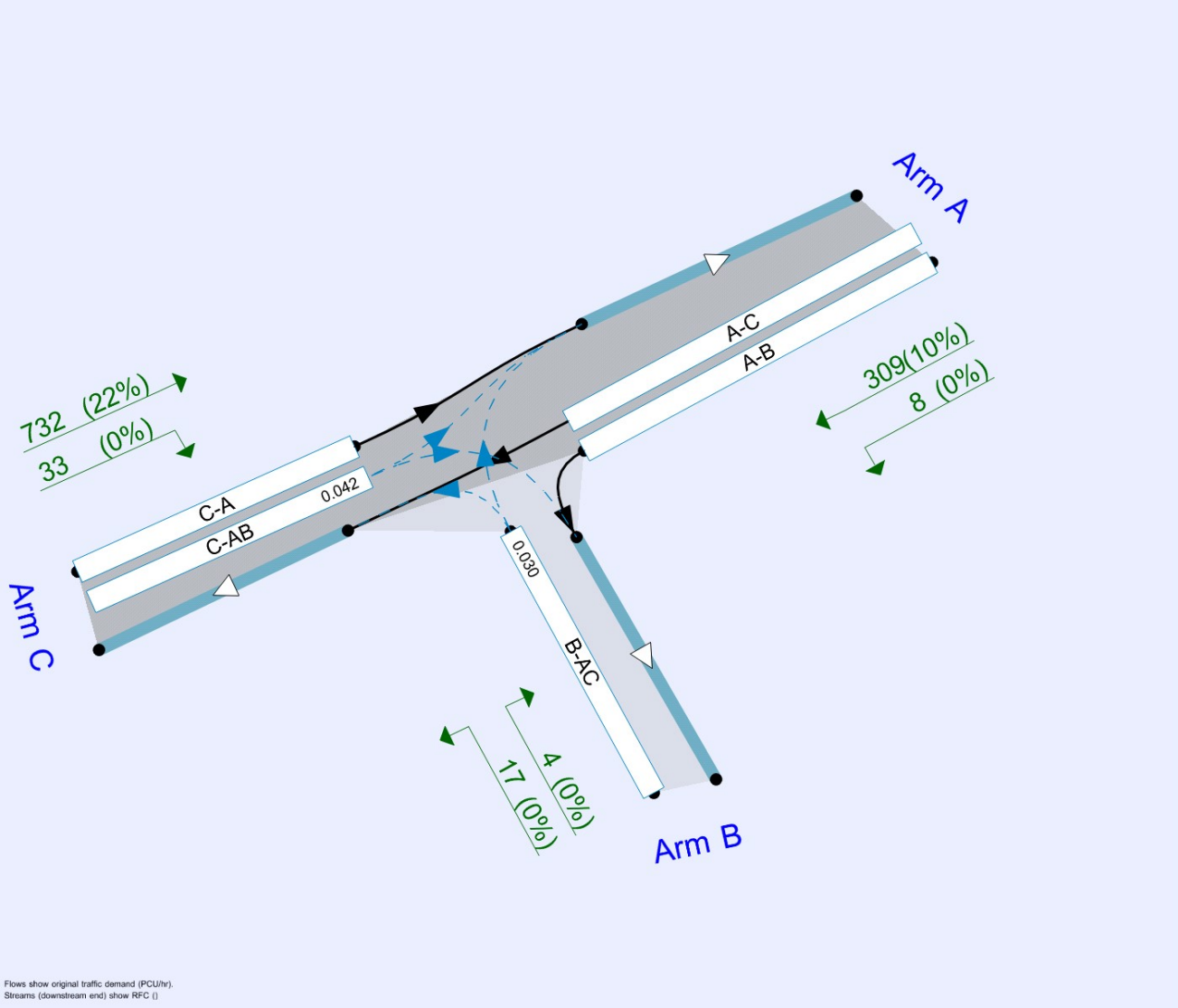
File summary

File Description

Title	C1091
Location	N25/Site Access Junction
Site number	
Date	19/06/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\NarendraJillelamudi
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

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

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	Do Somethinng YoO+15 (2041)	PM	ONE HOUR	16:45	18:15	15

Do Somethinng YoO+15 (2041), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N25 (East)		Major
B	Site Access Road		Minor
C	N25 (West)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00	✓	2.88	✓	2.88	50.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.12	26	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	534	0.091	0.231	0.145	0.330
B-C	644	0.099	0.250	-	-
C-B	648	0.251	0.251	-	-

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

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

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	317	100.000
B		✓	21	100.000
C		✓	765	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	8	309
	B	4	0	17
	C	732	33	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	10
	B	0	0	0
	C	22	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	7.69	0.0	A
C-AB	0.07	6.39	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	535	0.030	16	0.0	6.930	A
C-AB	26	611	0.042	26	0.0	6.191	A
C-A	550			550			
A-B	6			6			
A-C	233			233			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	517	0.037	19	0.0	7.223	A
C-AB	31	609	0.052	31	0.1	6.285	A
C-A	656			656			
A-B	7			7			
A-C	278			278			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	491	0.047	23	0.0	7.685	A
C-AB	40	611	0.065	40	0.1	6.385	A
C-A	803			803			
A-B	9			9			
A-C	340			340			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	491	0.047	23	0.0	7.687	A
C-AB	40	612	0.065	40	0.1	6.385	A
C-A	803			803			
A-B	9			9			
A-C	340			340			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	517	0.037	19	0.0	7.225	A
C-AB	31	612	0.051	31	0.1	6.286	A
C-A	656			656			
A-B	7			7			
A-C	278			278			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	535	0.030	16	0.0	6.936	A
C-AB	26	612	0.042	26	0.0	6.195	A
C-A	550			550			
A-B	6			6			
A-C	233			233			

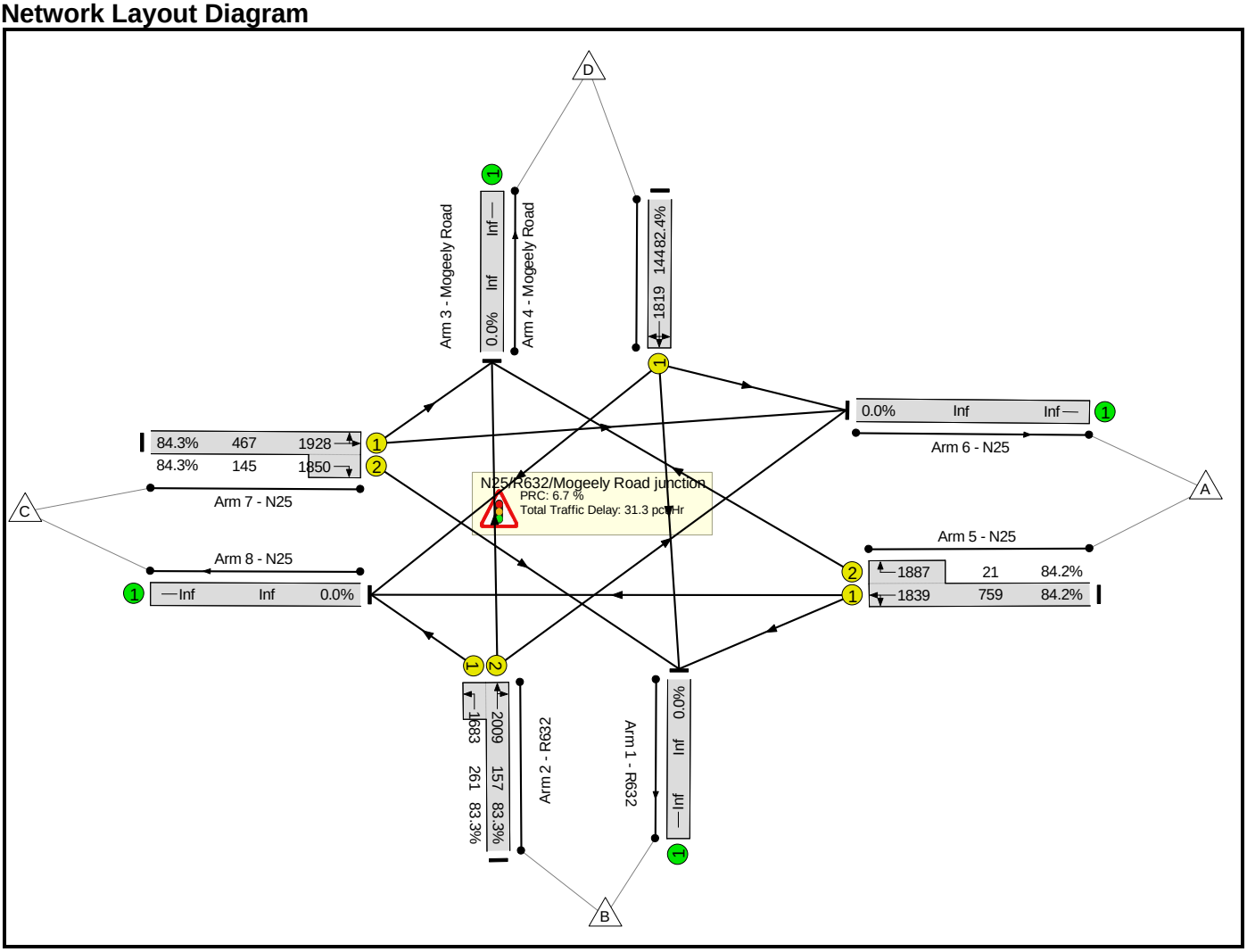
Basic Results Summary

User and Project Details

Project:	Glenveagh Castlemartyr LRD
Title:	N25 Junction Modelling
Location:	N25/R632/Mogeeley Road Junction
File name:	20240620 C1091 N25_R632_Mogeely Junction V1.2.lsg3x
Author:	Narendra Jillelamudi
Company:	Transport Insights
Address:	21 Bagggot Street Lower
Notes:	Draft Modelling Results

Scenario 1: 'Base Year (2024) AM' (FG1: 'Base Year (2024) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

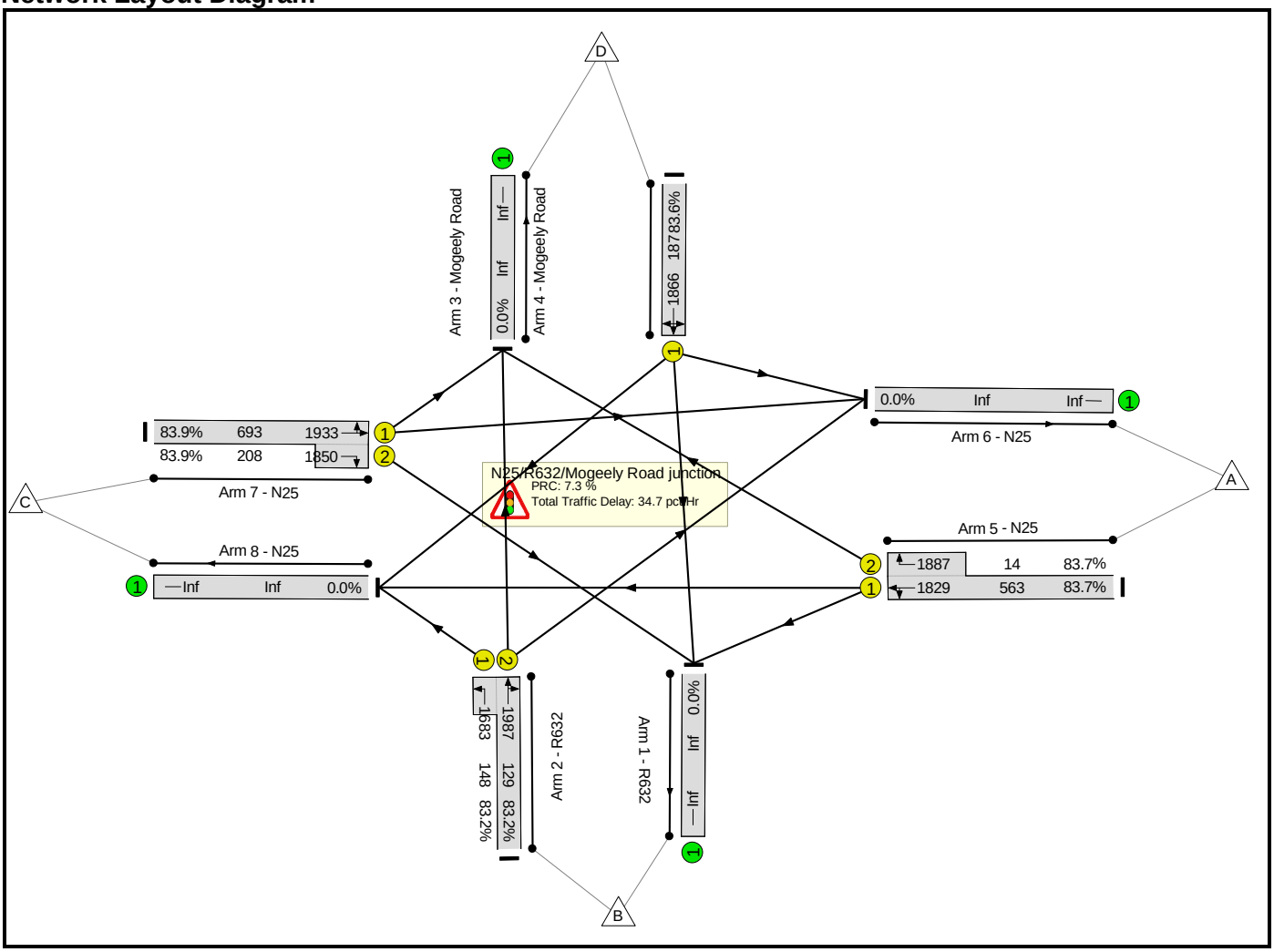
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.3%**	**0**	**0**	**0**	**31.3**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.3%**	**0**	**0**	**0**	**31.3**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	60:129	-	348	2009:1683	157+261	83.3 : 83.3%	-	-	-	7.7	80.1	16.8
3/1	Mogeely Road Ahead Left Right	U	F		2	25	-	119	1819	144	82.4%	-	-	-	4.6	138.1	7.5
5/1+5/2	N25 Left Right Ahead	U	A B		2	142:14	-	657	1839:1887	759+21	84.2 : 84.2%	-	-	-	11.1	61.0	30.9
7/1+7/2	N25 Right Left Ahead	U	E G		2	185:65	-	516	1928:1850	467+145	84.3 : 84.3%	-	-	-	7.9	54.9	23.6

C1 PRC for Signalled Lanes (%): 6.7 Total Delay for Signalled Lanes (pcuHr): 31.32 Cycle Time (s): 340
PRC Over All Lanes (%): 6.7 Total Delay Over All Lanes(pcuHr): 31.32

Basic Results Summary

Scenario 2: 'Base Year (2024) PM' (FG2: 'Base Year (2024) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

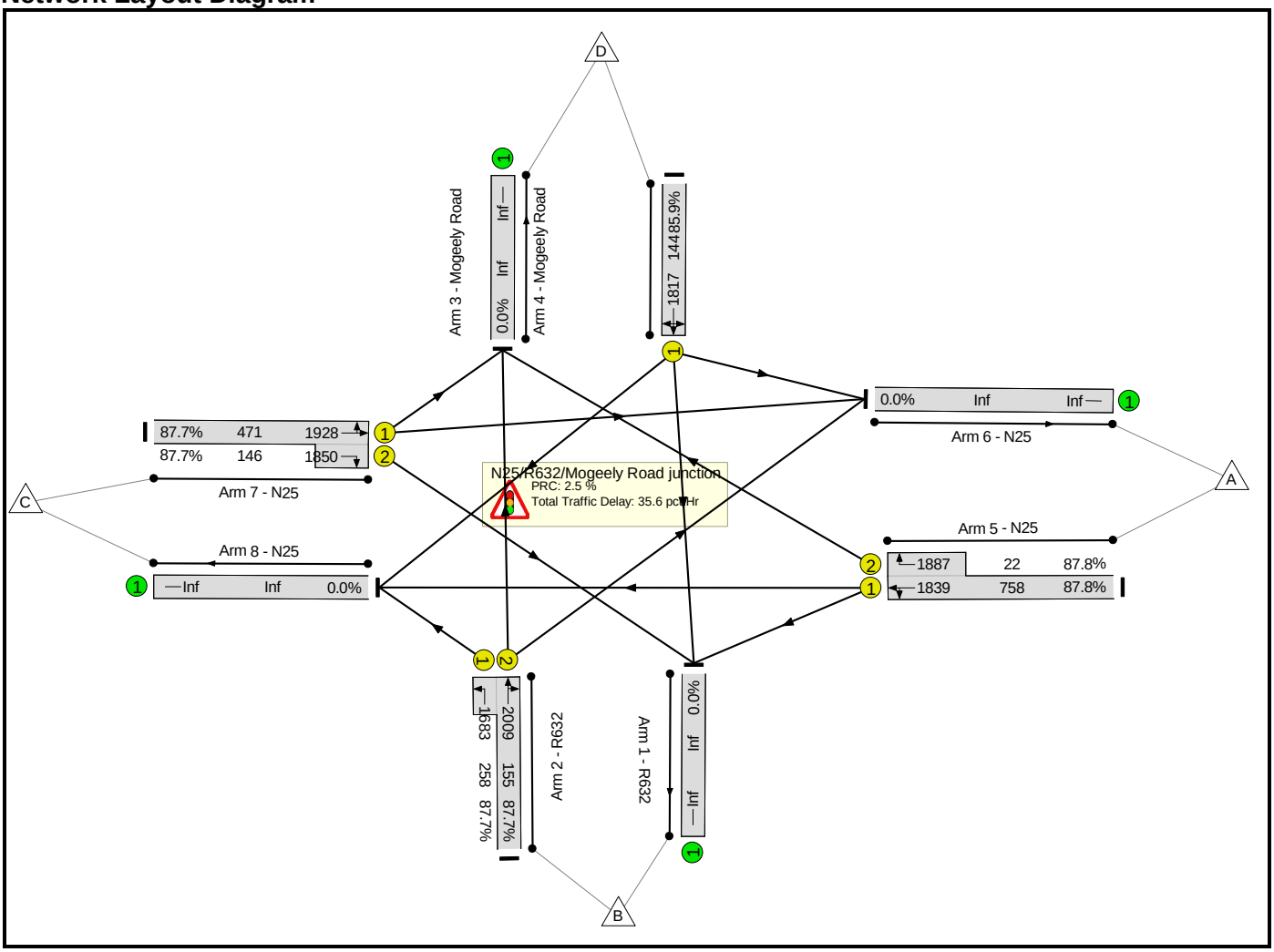
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.9%**	**0**	**0**	**0**	**34.7**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.9%**	**0**	**0**	**0**	**34.7**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	47:194	-	230	1987:1683	129+148	83.2 : 83.2%	-	-	-	6.6	103.0	12.6
3/1	Mogeely Road Ahead Left Right	U	F		2	38	-	156	1866	187	83.6%	-	-	-	6.1	139.9	11.1
5/1+5/2	N25 Left Right Ahead	U	A B		2	124:14	-	483	1829:1887	563+14	83.7 : 83.7%	-	-	-	11.4	85.2	27.5
7/1+7/2	N25 Right Left Ahead	U	E G		2	245:143	-	755	1933:1850	693+208	83.9 : 83.9%	-	-	-	10.6	50.8	38.2

C1 PRC for Signalled Lanes (%): 7.3 Total Delay for Signalled Lanes (pcuHr): 34.72 Cycle Time (s): 400
PRC Over All Lanes (%): 7.3 Total Delay Over All Lanes(pcuHr): 34.72

Basic Results Summary

Scenario 3: 'Do Nothing YoO (2026) AM' (FG3: 'Do Nothing YoO (2026) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

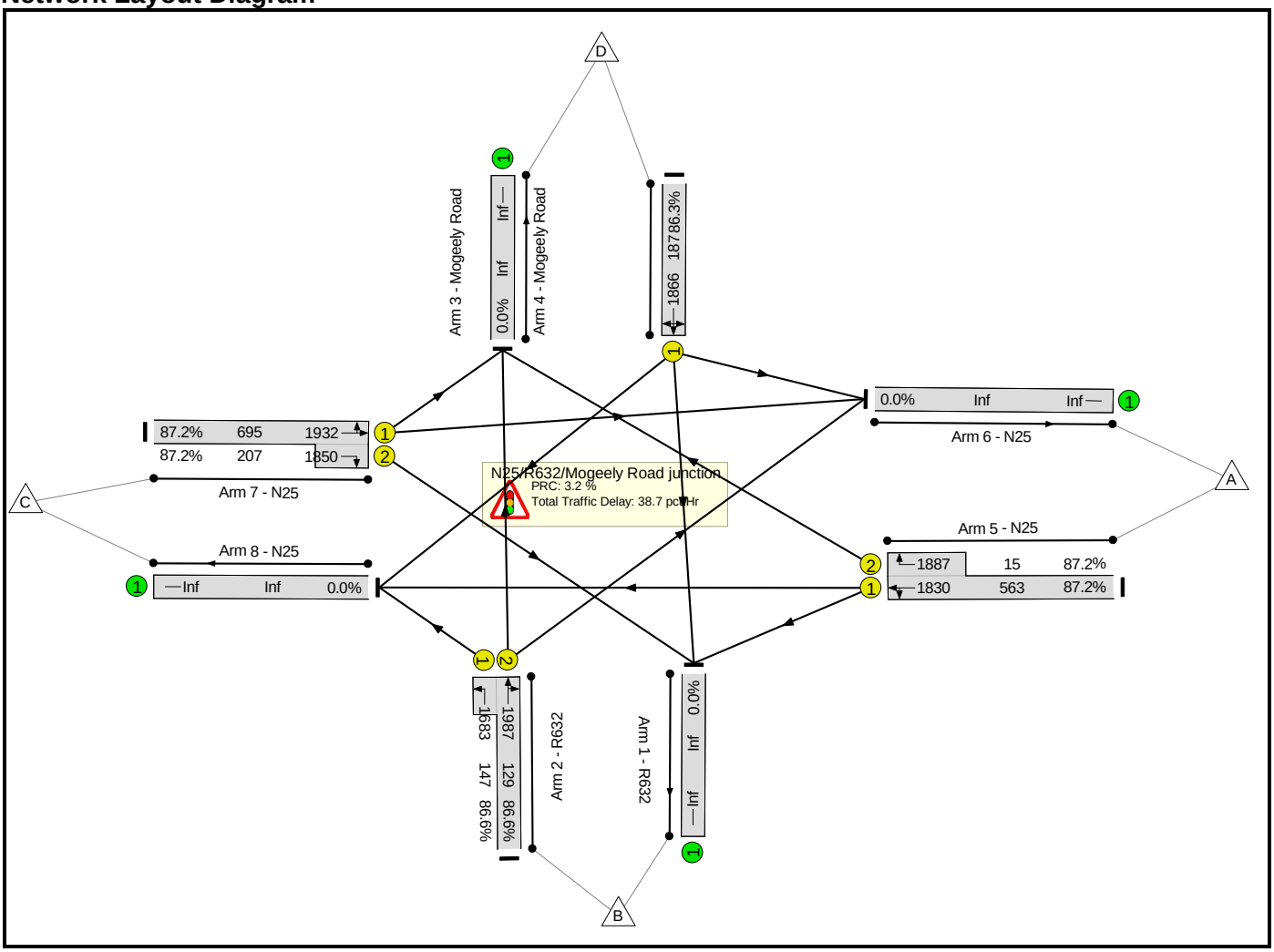
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.8%**	**0**	**0**	**0**	**35.6**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.8%**	**0**	**0**	**0**	**35.6**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	59:129	-	362	2009:1683	155+258	87.7 : 87.7%	-	-	-	8.9	88.7	18.6
3/1	Mogeely Road Ahead Left Right	U	F		2	25	-	124	1817	144	85.9%	-	-	-	5.1	148.8	8.5
5/1+5/2	N25 Left Right Ahead	U	A B		2	142:14	-	685	1839:1887	758+22	87.8 : 87.8%	-	-	-	12.5	65.7	33.1
7/1+7/2	N25 Right Left Ahead	U	E G		2	186:66	-	541	1928:1850	471+146	87.7 : 87.7%	-	-	-	9.0	60.0	26.4

C1 PRC for Signalled Lanes (%): 2.5 Total Delay for Signalled Lanes (pcuHr): 35.57 Cycle Time (s): 340
PRC Over All Lanes (%): 2.5 Total Delay Over All Lanes(pcuHr): 35.57

Basic Results Summary

Scenario 4: 'Do Nothing YoO (2026) PM' (FG4: 'Do Nothing YoO (2026) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

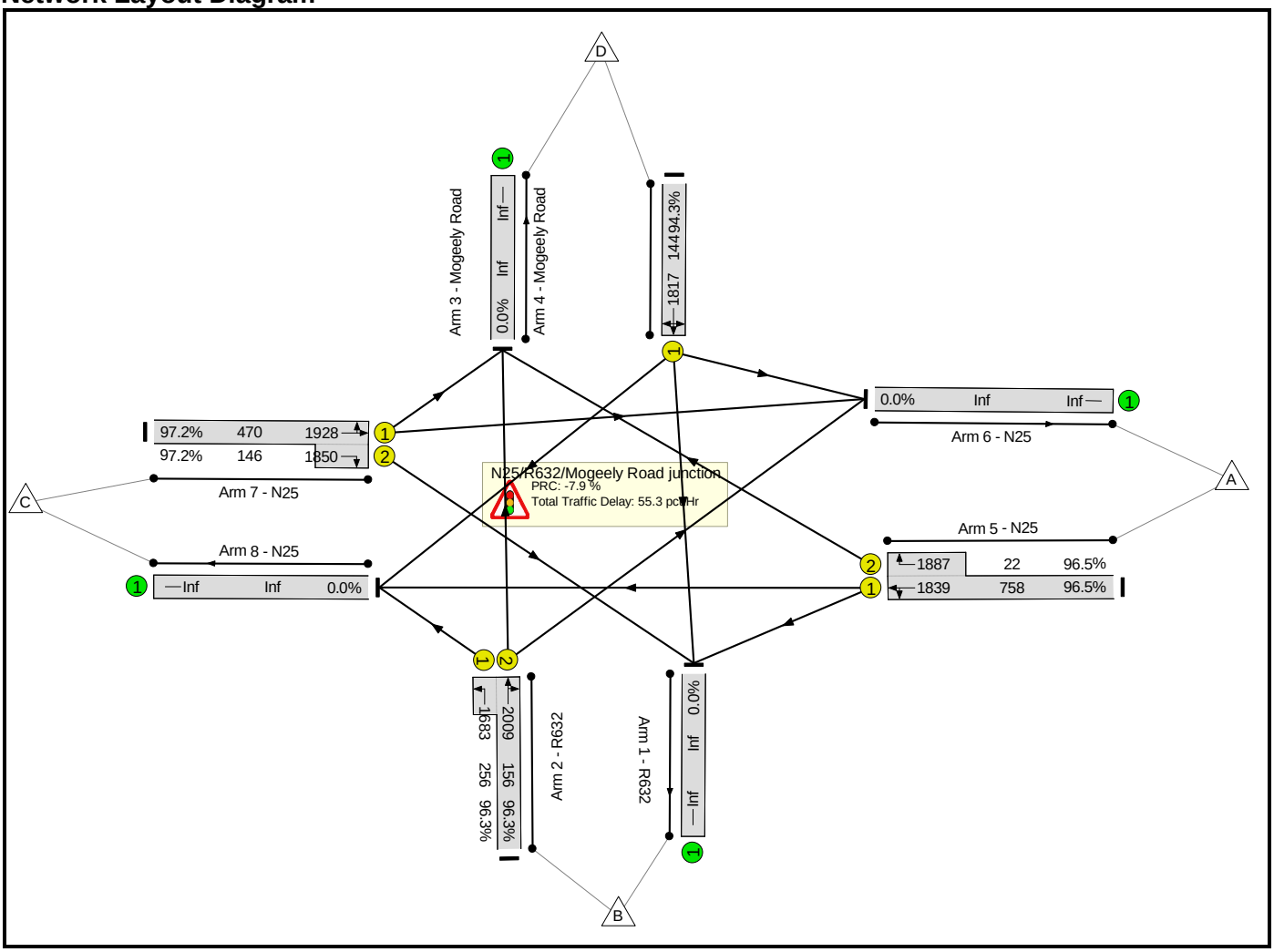
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.2%**	**0**	**0**	**0**	**38.7**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.2%**	**0**	**0**	**0**	**38.7**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	47:194	-	239	1987:1683	129+147	86.6 : 86.6%	-	-	-	7.4	111.3	13.6
3/1	Mogeely Road Ahead Left Right	U	F		2	38	-	161	1866	187	86.3%	-	-	-	6.6	147.2	11.7
5/1+5/2	N25 Left Right Ahead	U	A B		2	124:14	-	504	1830:1887	563+15	87.2 : 87.2%	-	-	-	12.7	90.7	29.8
7/1+7/2	N25 Right Left Ahead	U	E G		2	245:143	-	786	1932:1850	695+207	87.2 : 87.2%	-	-	-	12.0	54.9	41.7

C1 PRC for Signalled Lanes (%): 3.2 Total Delay for Signalled Lanes (pcuHr): 38.66 Cycle Time (s): 400
PRC Over All Lanes (%): 3.2 Total Delay Over All Lanes(pcuHr): 38.66

Basic Results Summary

Scenario 5: 'Do Nothing YoO+5 (2031) AM' (FG5: 'Do Nothing YoO+5 (2031) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**97.2%**	**0**	**0**	**0**	**55.3**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**97.2%**	**0**	**0**	**0**	**55.3**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	59:129	-	397	2009:1683	156+256	96.3 : 96.3%	-	-	-	13.4	121.9	24.8
3/1	Mogeely Road Ahead Left Right	U	F		2	25	-	136	1817	144	94.3%	-	-	-	7.1	187.2	11.0
5/1+5/2	N25 Left Right Ahead	U	A B		2	142:14	-	753	1839:1887	758+22	96.5 : 96.5%	-	-	-	19.2	91.6	43.3
7/1+7/2	N25 Right Left Ahead	U	E G		2	186:66	-	599	1928:1850	470+146	97.2 : 97.2%	-	-	-	15.6	94.0	35.7

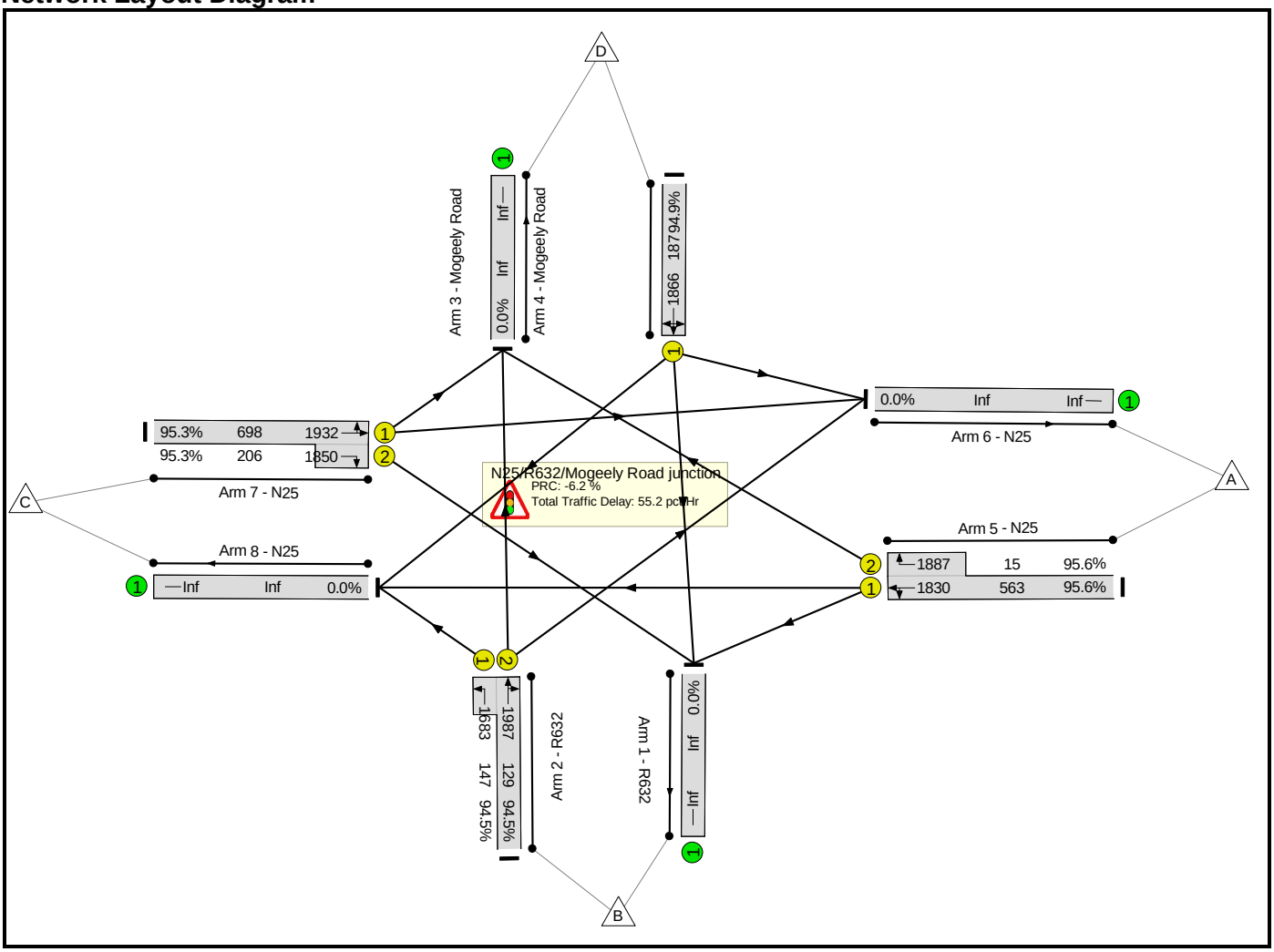
C1 PRC for Signalled Lanes (%): -7.9 Total Delay for Signalled Lanes (pcuHr): 55.33 Cycle Time (s): 340

PRC Over All Lanes (%): -7.9 Total Delay Over All Lanes(pcuHr): 55.33

Basic Results Summary

Scenario 6: 'Do Nothing YoO+5 (2031) PM' (FG6: 'Do Nothing YoO+5 (2031) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.6%**	**0**	**0**	**0**	**55.2**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.6%**	**0**	**0**	**0**	**55.2**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	47:194	-	261	1987:1683	129+147	94.5 : 94.5%	-	-	-	10.3	142.0	17.7
3/1	Mogeely Road Ahead Left Right	U	F		2	38	-	177	1866	187	94.9%	-	-	-	9.1	184.6	14.8
5/1+5/2	N25 Left Right Ahead	U	A B		2	124:14	-	552	1830:1887	563+15	95.6 : 95.6%	-	-	-	17.8	116.0	37.5
7/1+7/2	N25 Right Left Ahead	U	E G		2	245:143	-	861	1932:1850	698+206	95.3 : 95.3%	-	-	-	18.0	75.4	52.9

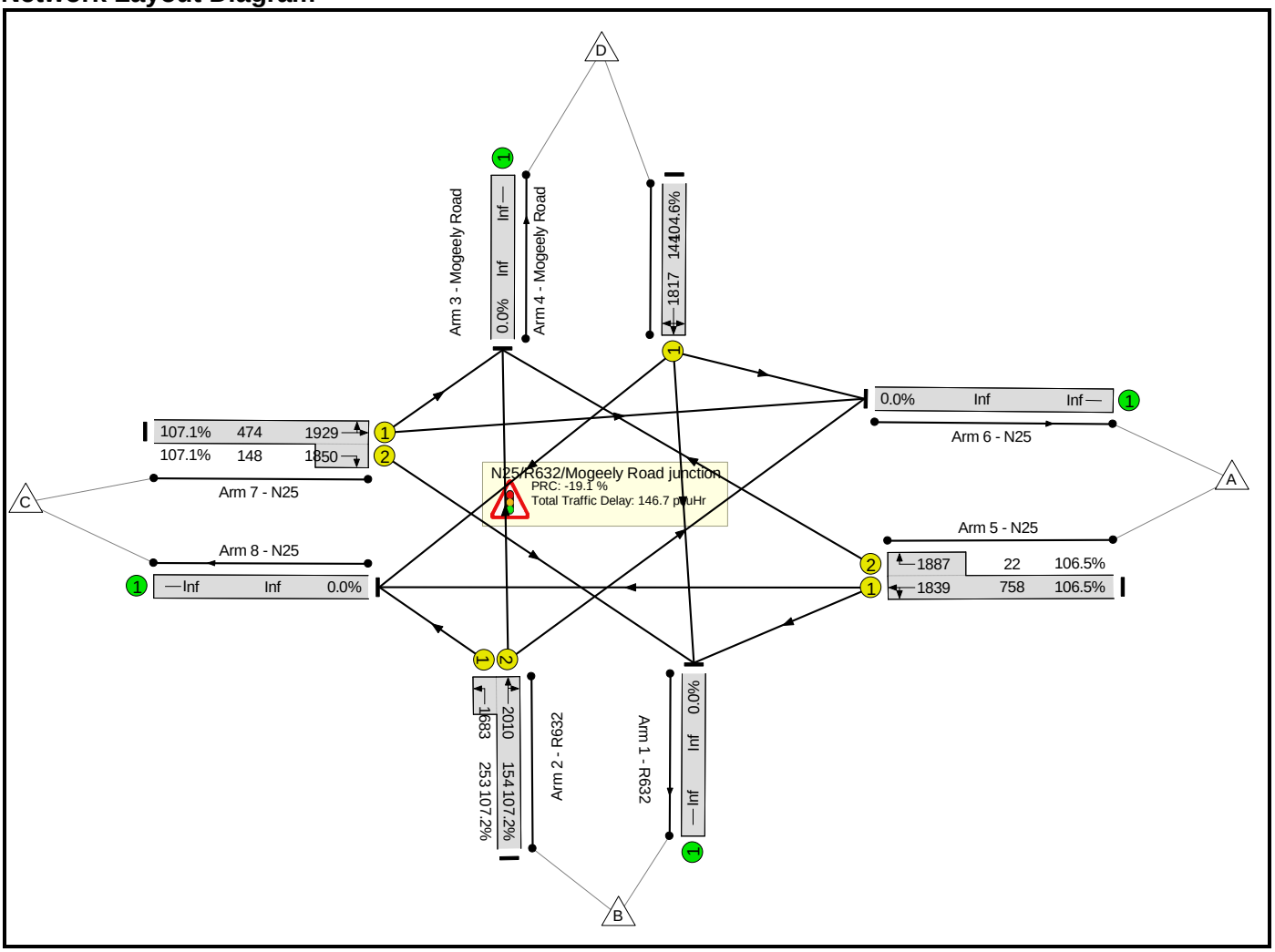
C1 PRC for Signalled Lanes (%): -6.2 Total Delay for Signalled Lanes (pcuHr): 55.19 Cycle Time (s): 400

PRC Over All Lanes (%): -6.2 Total Delay Over All Lanes(pcuHr): 55.19

Basic Results Summary

Scenario 7: 'Do Nothing YoO+15 (2041) AM' (FG7: 'Do Nothing YoO+15 (2041) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

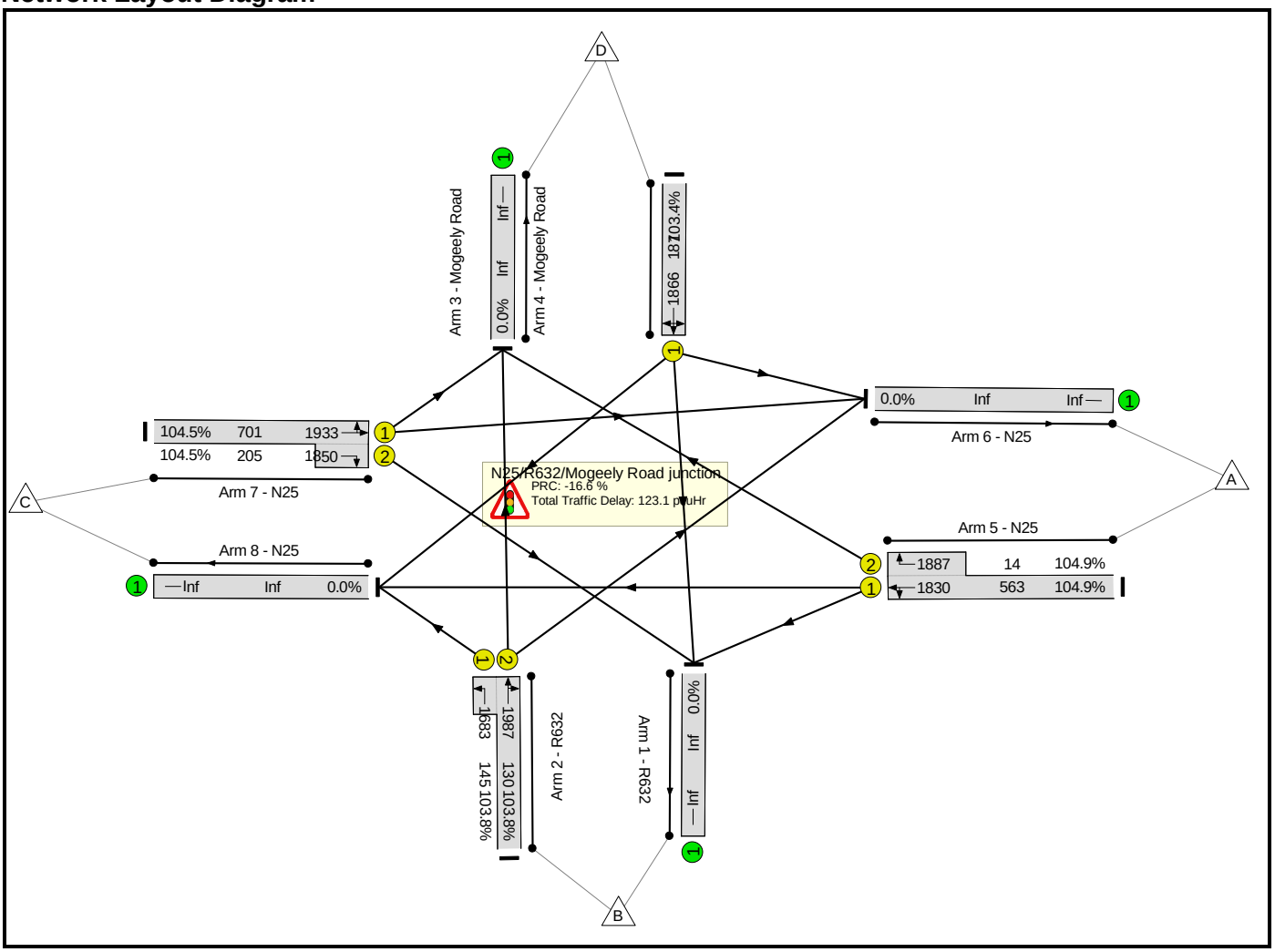
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**107.2%**	**0**	**0**	**0**	**146.7**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**107.2%**	**0**	**0**	**0**	**146.7**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	58:129	-	436	2010:1683	154+253	107.2 : 107.2%	-	-	-	32.0	264.5	45.3
3/1	Mogeely Road Ahead Left Right	U	F		2	25	-	151	1817	144	104.6%	-	-	-	12.6	300.5	16.5
5/1+5/2	N25 Left Right Ahead	U	A B		2	142:78	-	831	1839:1887	758+22	106.5 : 106.5%	-	-	-	53.2	230.4	86.1
7/1+7/2	N25 Right Left Ahead	U	E G		2	123:67	-	666	1929:1850	474+148	107.1 : 107.1%	-	-	-	48.9	264.1	74.4

C1 PRC for Signalled Lanes (%): -19.1 Total Delay for Signalled Lanes (pcuHr): 146.69 Cycle Time (s): 340
PRC Over All Lanes (%): -19.1 Total Delay Over All Lanes(pcuHr): 146.69

Basic Results Summary

Scenario 8: 'Do Nothing YoO+15 (2041) PM' (FG8: 'Do Nothing YoO+15 (2041) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

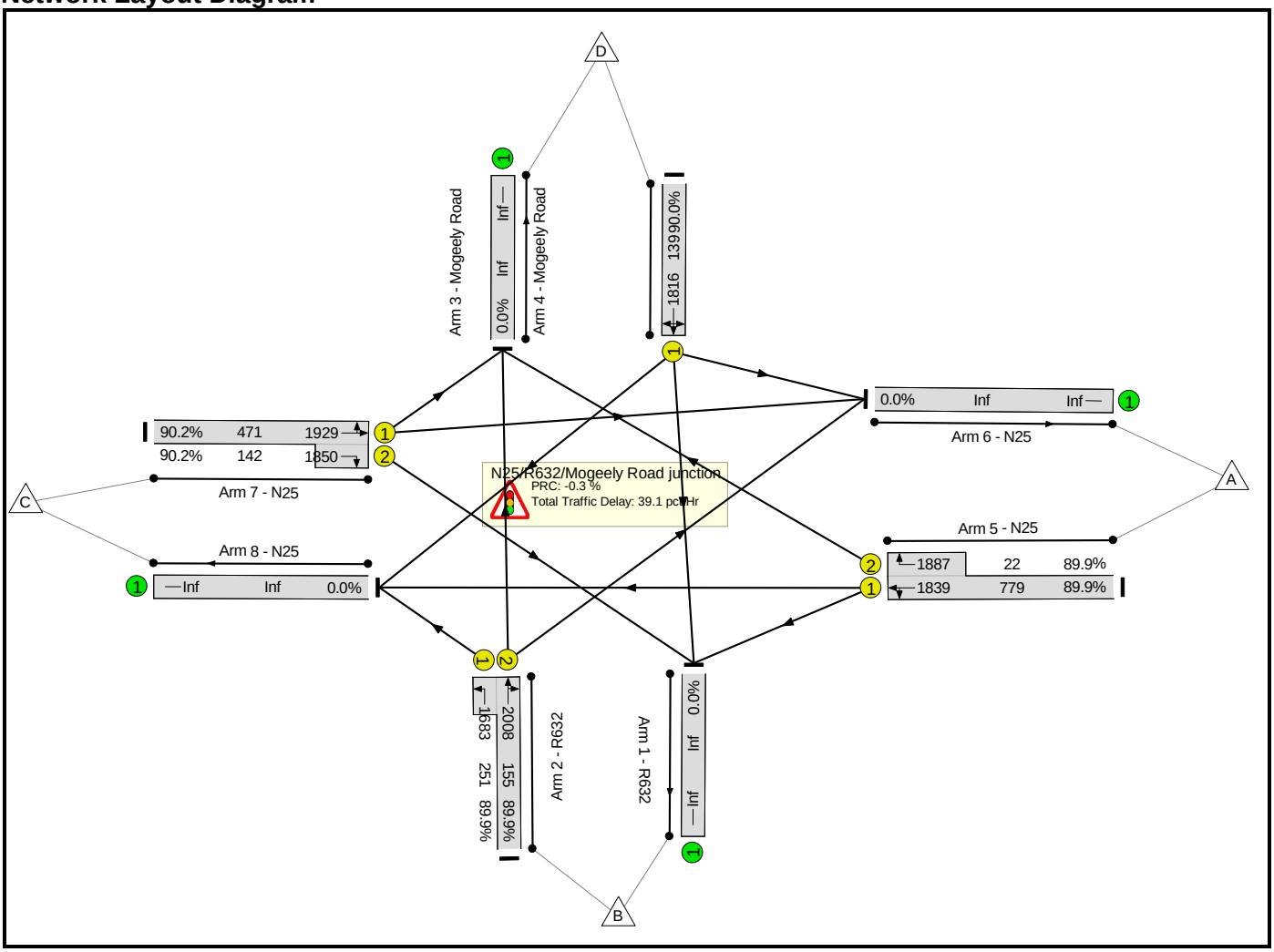
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**104.9%**	**0**	**0**	**0**	**123.1**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**104.9%**	**0**	**0**	**0**	**123.1**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	47:194	-	286	1987:1683	130+145	103.8 : 103.8%	-	-	-	19.5	245.4	27.4
3/1	Mogeely Road Ahead Left Right	U	F		2	38	-	193	1866	187	103.4%	-	-	-	15.1	281.1	21.0
5/1+5/2	N25 Left Right Ahead	U	A B		2	124:14	-	606	1830:1887	563+14	104.9 : 104.9%	-	-	-	39.4	234.2	61.0
7/1+7/2	N25 Right Left Ahead	U	E G		2	245:143	-	946	1933:1850	701+205	104.5 : 104.5%	-	-	-	49.1	186.7	89.1

C1 PRC for Signalled Lanes (%): -16.6 Total Delay for Signalled Lanes (pcuHr): 123.05 Cycle Time (s): 400
PRC Over All Lanes (%): -16.6 Total Delay Over All Lanes(pcuHr): 123.05

Basic Results Summary

Scenario 9: 'Do Something YoO (2026) AM' (FG9: 'Do Something YoO (2026) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

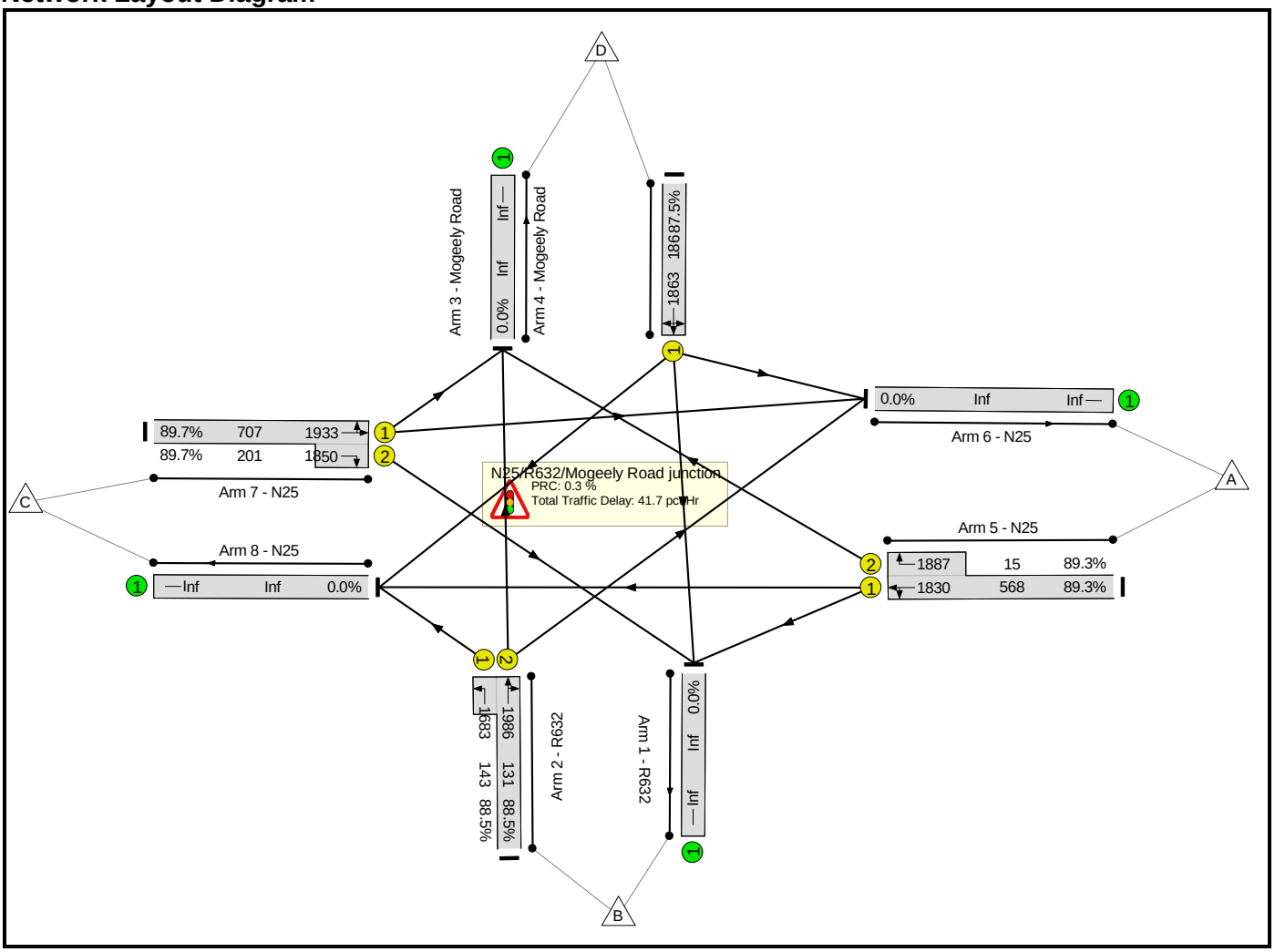
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**90.2%**	**0**	**0**	**0**	**39.1**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**90.2%**	**0**	**0**	**0**	**39.1**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	58:126	-	365	2008:1683	155+251	89.9 : 89.9%	-	-	-	9.7	95.6	19.7
3/1	Mogeely Road Ahead Left Right	U	F		2	24	-	125	1816	139	90.0%	-	-	-	5.8	167.6	9.2
5/1+5/2	N25 Left Right Ahead	U	A B		2	146:14	-	721	1839:1887	779+22	89.9 : 89.9%	-	-	-	13.6	67.9	35.8
7/1+7/2	N25 Right Left Ahead	U	E G		2	188:64	-	553	1929:1850	471+142	90.2 : 90.2%	-	-	-	10.0	64.9	28.1

C1 PRC for Signalled Lanes (%): -0.3 Total Delay for Signalled Lanes (pcuHr): 39.07 Cycle Time (s): 340
PRC Over All Lanes (%): -0.3 Total Delay Over All Lanes(pcuHr): 39.07

Basic Results Summary

Scenario 10: 'Do Something YoO (2026) PM' (FG10: 'Do Something YoO (2026) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

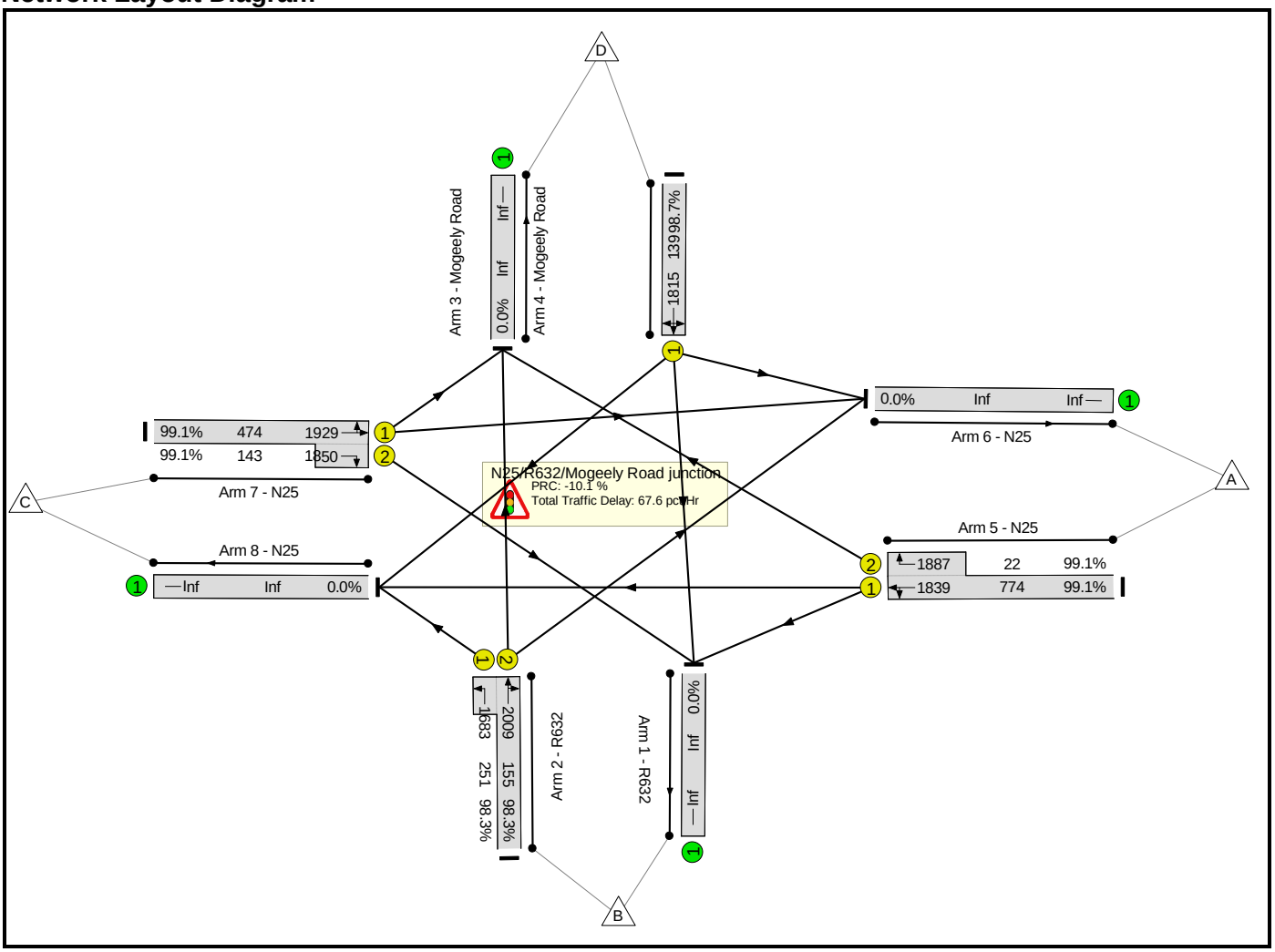
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.7%**	**0**	**0**	**0**	**41.7**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.7%**	**0**	**0**	**0**	**41.7**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	47:193	-	243	1986:1683	131+143	88.5 : 88.5%	-	-	-	7.9	117.7	14.2
3/1	Mogeely Road Ahead Left Right	U	F		2	38	-	163	1863	186	87.5%	-	-	-	6.8	151.1	12.0
5/1+5/2	N25 Left Right Ahead	U	A B		2	125:14	-	520	1830:1887	568+15	89.3 : 89.3%	-	-	-	13.6	94.5	32.8
7/1+7/2	N25 Right Left Ahead	U	E G		2	245:142	-	814	1933:1850	707+201	89.7 : 89.7%	-	-	-	13.3	58.9	46.2

C1 PRC for Signalled Lanes (%): 0.3 Total Delay for Signalled Lanes (pcuHr): 41.75 Cycle Time (s): 400
PRC Over All Lanes (%): 0.3 Total Delay Over All Lanes(pcuHr): 41.75

Basic Results Summary

Scenario 11: 'Do Something YoO+5 (2031) AM' (FG11: 'Do Something YoO+5 (2031) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**99.1%**	**0**	**0**	**0**	**67.6**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**99.1%**	**0**	**0**	**0**	**67.6**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	58:127	-	399	2009:1683	155+251	98.3 : 98.3%	-	-	-	15.1	136.7	26.7
3/1	Mogeely Road Ahead Left Right	U	F		2	24	-	137	1815	139	98.7%	-	-	-	8.4	221.7	12.3
5/1+5/2	N25 Left Right Ahead	U	A B		2	145:72	-	789	1839:1887	774+22	99.1 : 99.1%	-	-	-	23.3	106.3	49.7
7/1+7/2	N25 Right Left Ahead	U	E G		2	130:65	-	612	1929:1850	474+143	99.1 : 99.1%	-	-	-	20.7	121.7	40.7

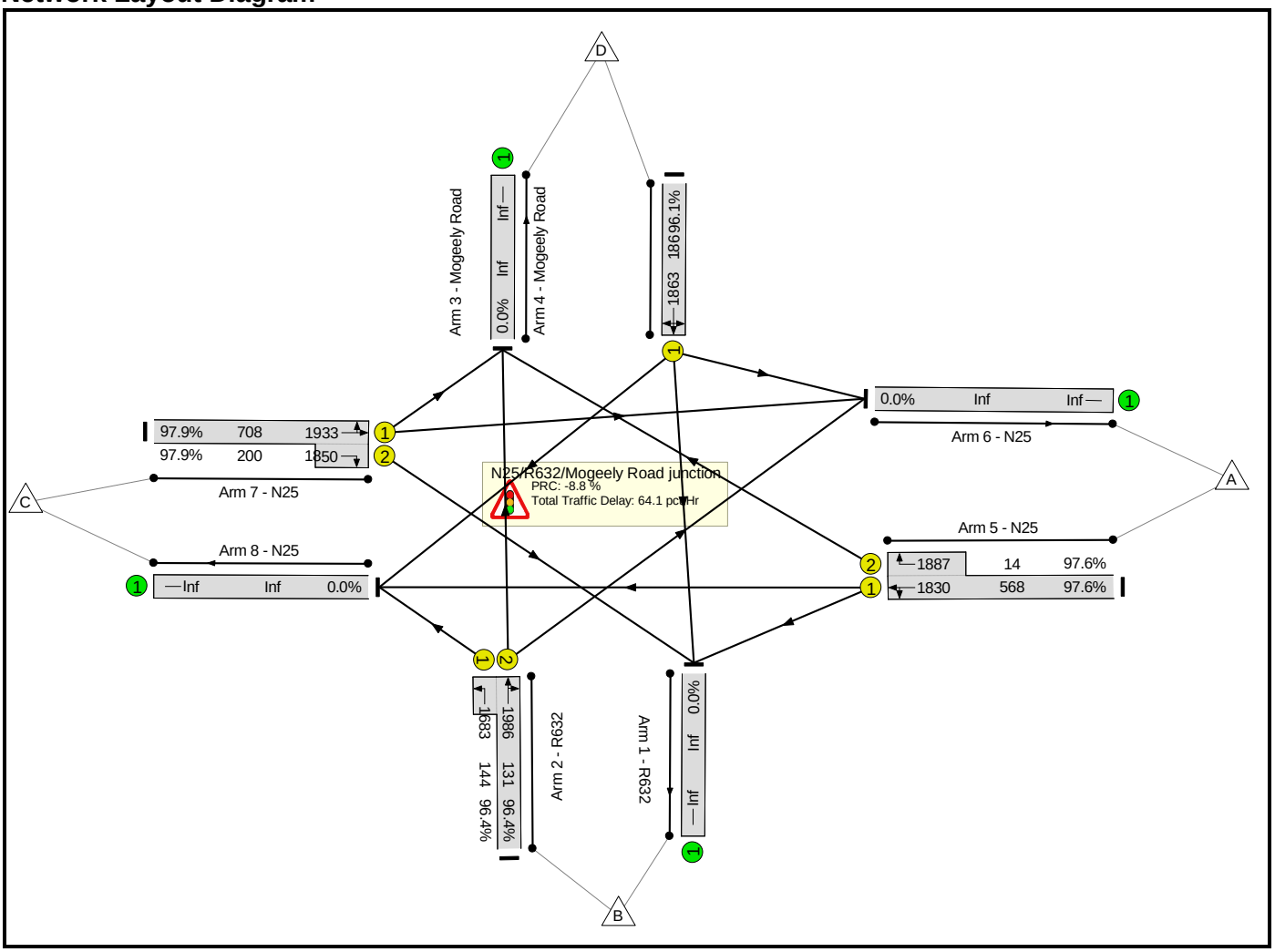
C1 PRC for Signalled Lanes (%): -10.1 Total Delay for Signalled Lanes (pcuHr): 67.58 Cycle Time (s): 340

PRC Over All Lanes (%): -10.1 Total Delay Over All Lanes(pcuHr): 67.58

Basic Results Summary

Scenario 12: 'Do Something YoO+5 (2031) AM' (FG12: 'Do Something YoO+5 (2031) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.9%**	**0**	**0**	**0**	**64.1**	**-**	**-**
N25/R632/Mogeely Road junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.9%**	**0**	**0**	**0**	**64.1**	**-**	**-**
1/2+1/1	R632 Ahead Right Left	U	D C		2	47:193	-	265	1986:1683	131+144	96.4 : 96.4%	-	-	-	11.4	154.6	19.1
3/1	Mogeely Road Ahead Left Right	U	F		2	38	-	179	1863	186	96.1%	-	-	-	10.0	200.5	15.6
5/1+5/2	N25 Left Right Ahead	U	A B		2	125:14	-	568	1830:1887	568+14	97.6 : 97.6%	-	-	-	20.4	129.1	41.6
7/1+7/2	N25 Right Left Ahead	U	E G		2	245:142	-	889	1933:1850	708+200	97.9 : 97.9%	-	-	-	22.4	90.7	61.6

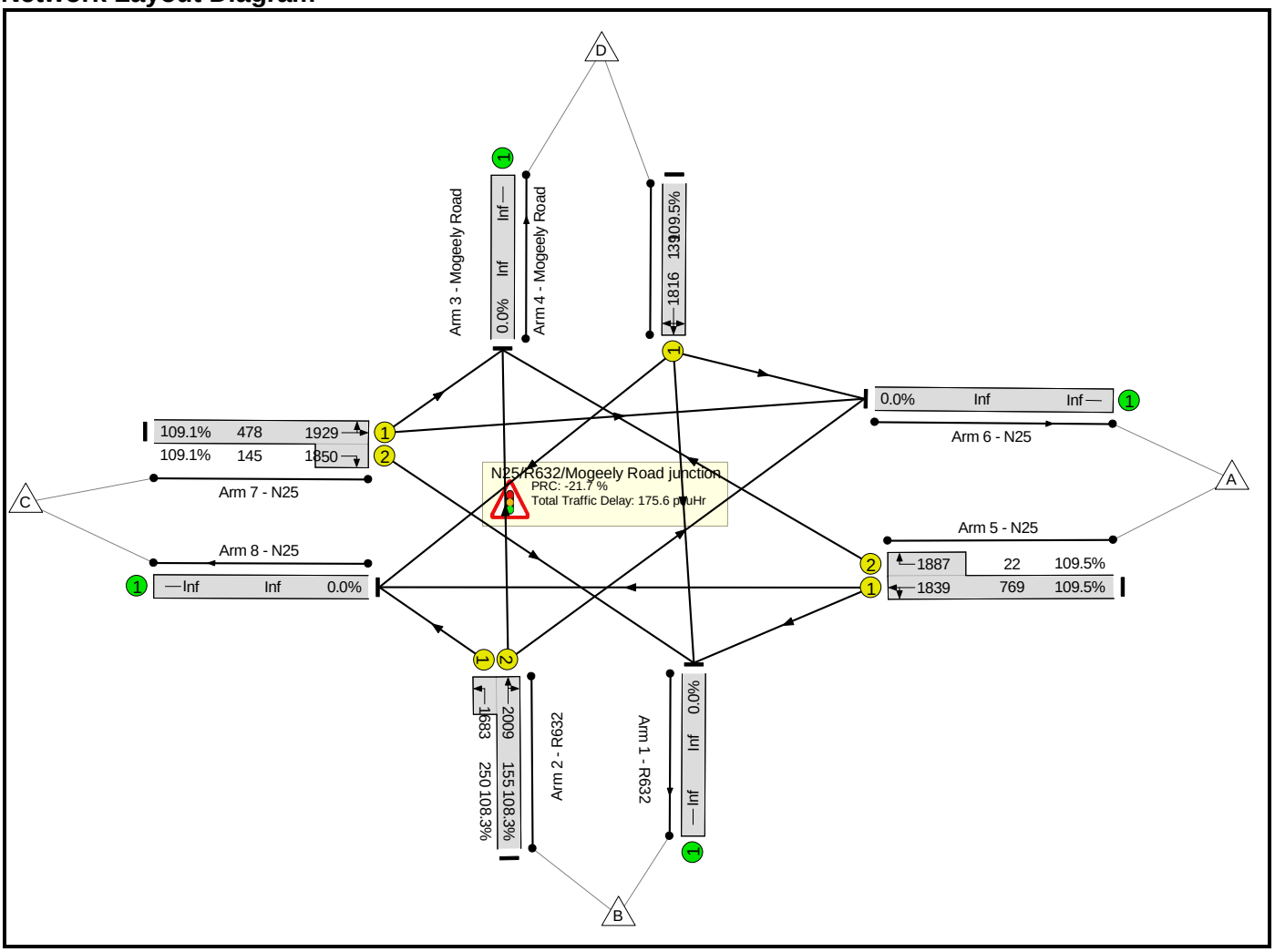
C1 PRC for Signalled Lanes (%): -8.8 Total Delay for Signalled Lanes (pcuHr): 64.11 Cycle Time (s): 400

PRC Over All Lanes (%): -8.8 Total Delay Over All Lanes(pcuHr): 64.11

Basic Results Summary

Scenario 13: 'Do Something YoO+15 (2041) AM' (FG13: 'Do Something YoO+15 (2041) AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

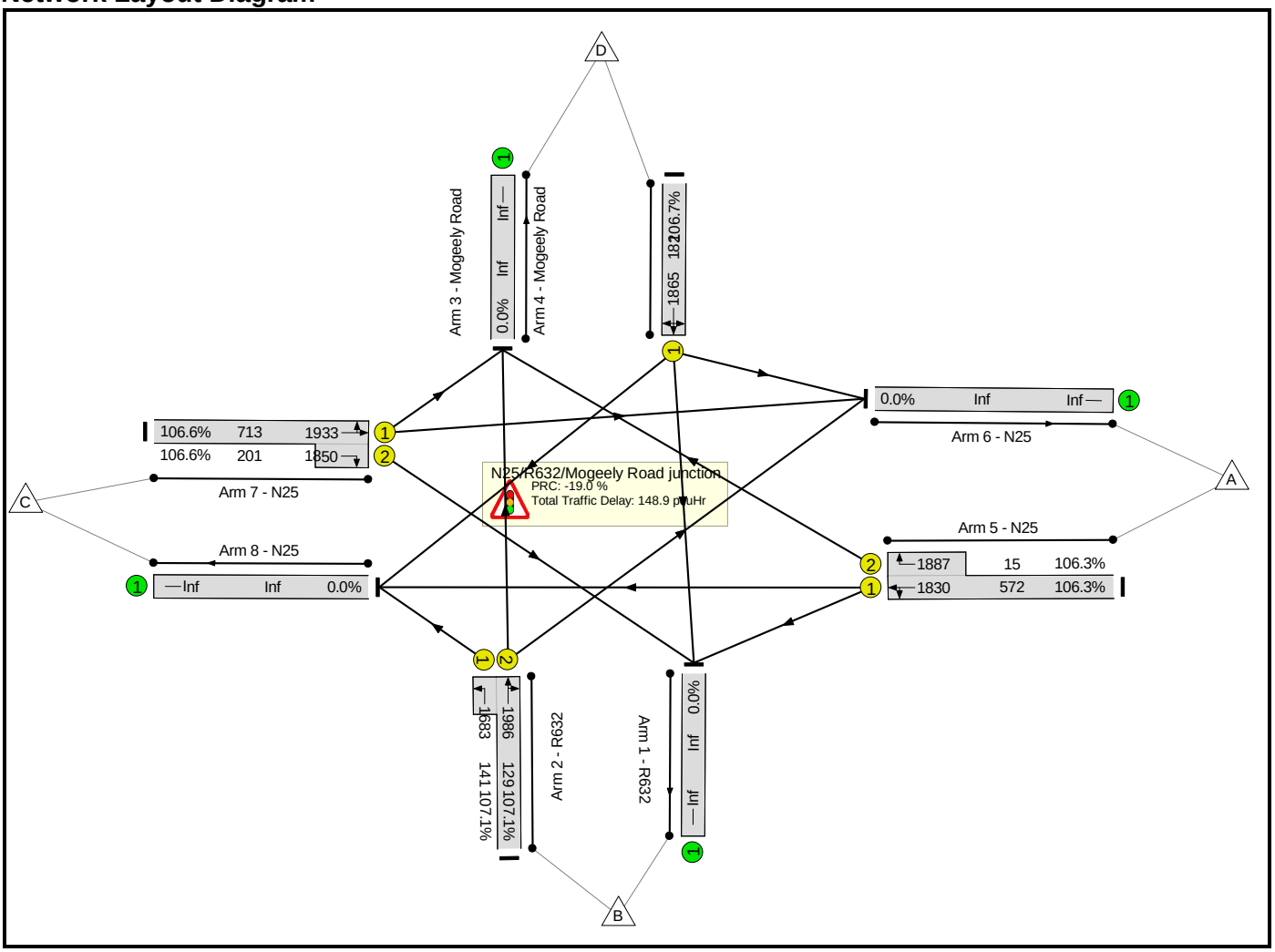
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**109.5%**	**0**	**0**	**0**	**175.6**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**109.5%**	**0**	**0**	**0**	**175.6**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	58:128	-	439	2009:1683	155+250	108.3 : 108.3%	-	-	-	34.7	284.4	48.5
3/1	Mogeely Road Ahead Left Right	U	F		2	24	-	152	1816	139	109.5%	-	-	-	16.1	382.0	20.1
5/1+5/2	N25 Left Right Ahead	U	A B		2	144:81	-	866	1839:1887	769+22	109.5 : 109.5%	-	-	-	68.5	284.6	100.8
7/1+7/2	N25 Right Left Ahead	U	E G		2	121:66	-	679	1929:1850	478+145	109.1 : 109.1%	-	-	-	56.4	298.8	82.5

C1 PRC for Signalled Lanes (%): -21.7 Total Delay for Signalled Lanes (pcuHr): 175.63 Cycle Time (s): 340
PRC Over All Lanes (%): -21.7 Total Delay Over All Lanes(pcuHr): 175.63

Basic Results Summary

Scenario 14: 'Do Something YoO+15 (2041) PM' (FG14: 'Do Something YoO+15 (2041) PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**107.1%**	**0**	**0**	**0**	**148.9**	-	-
N25/R632/Mogeely Road junction	-	-	-		-	-	-	-	-	-	**107.1%**	**0**	**0**	**0**	**148.9**	-	-
1/2+1/1	R632 Ahead Right Left	U	D C		2	46:193	-	289	1986:1683	129+141	107.1 : 107.1%	-	-	-	23.9	297.8	33.2
3/1	Mogeely Road Ahead Left Right	U	F		2	37	-	194	1865	182	106.7%	-	-	-	18.4	341.1	24.3
5/1+5/2	N25 Left Right Ahead	U	A B		2	126:14	-	624	1830:1887	572+15	106.3 : 106.3%	-	-	-	45.5	262.2	67.0
7/1+7/2	N25 Right Left Ahead	U	E G		2	247:143	-	974	1933:1850	713+201	106.6 : 106.6%	-	-	-	61.1	225.9	104.2

C1 PRC for Signalled Lanes (%): -19.0 Total Delay for Signalled Lanes (pcuHr): 148.86 Cycle Time (s): 400
PRC Over All Lanes (%): -19.0 Total Delay Over All Lanes(pcuHr): 148.86