CHAPTER 13: TRAFFIC (UPDATED DECEMBER 2024)

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Glossary of Terms

Road Network:	The existing and proposed public and private roads within the study area.
Traffic Growth:	The normal expected growth in traffic over time.
Trip:	One movement, in or out of the study area by foot, cycle or vehicle.
Thresholds:	Minimum intervention levels at which Transport and Traffic Assessments are to be conducted.
Generated Trips:	Additional trips made as a result of the presence of a development.
Peak Time:	Time of day at which the transport demands from a development are greatest.
Capacity Calculations:	Standardised methods of estimating traffic capacity on links and at junctions.
Trip Distribution:	The estimated directional distribution of the estimated traffic at each junction in the study area.
Trip Assignment:	The final estimated flows of traffic for each direction of travel at each junction and along each link within the study area.
TRICS:	A database containing empirically obtained trip generation data for a wide range of different types of developments.
AADT:	Annual Average Daily Traffic – The mean daily traffic volume over the course of a year on a particular route.
Level of Service:	Level of Service (LOS) is a measure of the capacity of a road related to the average vehicular speed and level of congestion on the road. It is ranges from LOS A to LOS F, with A representing free flow and F representing stop/start traffic. LOS C represents stable flow conditions

Introduction

General

13.1 PMCE Ltd were commissioned to undertake an assessment of the traffic impacts associated with the proposed Sand and Gravel Pit in Kilmeague, Co. Kildare. The full description of the proposed development is outlined in Chapter 3 of the EIAR.

13.2 A Traffic and Transport Assessment has been prepared in support of this Environmental Impact Assessment Report for the proposed site – refer to Appendix 13.1.

13.3 This chapter of the Environmental Impact Assessment Report (EIAR) has been updated to address the items raised in the Planning Authority's Further Information (FI) request. Specifically, the following amendments have been made to ensure compliance with the Authority's requirements:

- **Operational Timeline**: The operational timeline has been revised to a maximum of 25 years, with associated adjustments to extraction and importation rates, and their implications on traffic volumes have been assessed and updated.
- **Traffic Impact**: The chapter has been updated to address discrepancies in vehicular movement data. Adjustments have been made to reflect a 6:00 pm operational finish time to protect residential amenity, and corrections have been made to referenced junction locations.
- **Haul Routes**: A comprehensive review of all haul routes has been undertaken. This includes addressing requested exclusions, such as the omission of routes via Allenwood and Robertstown, and consideration of weight restrictions on the L-7085, railway crossings, and bridge limitations. Consultation with relevant stakeholders, including Waterways Ireland and CIE, has been undertaken and documented.
- **Cumulative Impact Assessment**: Revisions to cumulative impact assessments have been included, reflecting the updated operational timeline and traffic impacts.

13.4 These updates are intended to provide greater clarity and ensure that the proposed development aligns with the Planning Authority's requirements and addresses any potential environmental or social concerns.

Information Reviewed

13.5 In preparing this assessment, reference has been made to the following documents:

- "Traffic and Transport Assessment Guidelines" (May 2014) published by Transport Infrastructure Ireland (TII).
- "Unit 5.3 (Travel Demand Projections) of the "Project Appraisal Guidelines" (October 2021) published by Transport Infrastructure Ireland.
- "Project Appraisal Guidelines for National Roads Unit 16.1 - Expansion Factors for Short Period Traffic Counts" (October 2016) published by Transport Infrastructure Ireland.
- TII Publications document DN-GEO-03031, "Rural Road Link Design" (June 2017, May 2023) published by TII.
- TII Publications document DN-GEO-03060, "Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade-separated and compact grade-separated junctions)" (June 2017, May 2023) published by TII.
- Traffic Count Survey Data, collected by Traffinomics.

- Topographical Survey Data/Mapping provided by Quarry Consulting.

Objective

13.6 The objective of this Traffic Chapter is to examine the traffic implications associated with the proposed development in terms of its integration with existing traffic in the area. The assessment determines and quantifies the extent of trips generated by the proposed development, and the impact on operational performance of such trips on the local road network.

Methodology

13.7 The methodology adopted for this assessment involved, in brief:

- Site Visit: A site visit was undertaken on the 9th March 2023, the weather was wet and the ground surface was wet.
- Trip Generation and Trip Assignment: This is used to derive trip rates for a 12 hour period and to assign such trips to the surrounding network according to which direction of travel vehicles will travel to/from Kilmeague, Co. Kildare.
- Link Capacity Assessment: To obtain an AADT value for the main road linking the development to the surrounding network.
- Junction Capacity Assessment: The traffic count data was used to develop Junctions 9 models for the assessed junctions.
- Future Year Assessments: The estimated future year volumes on the study area network, as a result of the increase in background traffic and any site related traffic, was used to assess the future operational performance of the junctions and surrounding road network for 2025 (assumed year of opening), and at two future assessment years, the opening year +5 (2030) and the opening year +15 (2040).

Location plan

13.8 Figure 0-1 shows the location of the proposed Sand and Gravel Pit in Kilmeague, Co. Kildare, and the surrounding road network. The site is located outside the townland of Kilmeague, approximately 8km West of Naas, and 8km north of Kildare town.

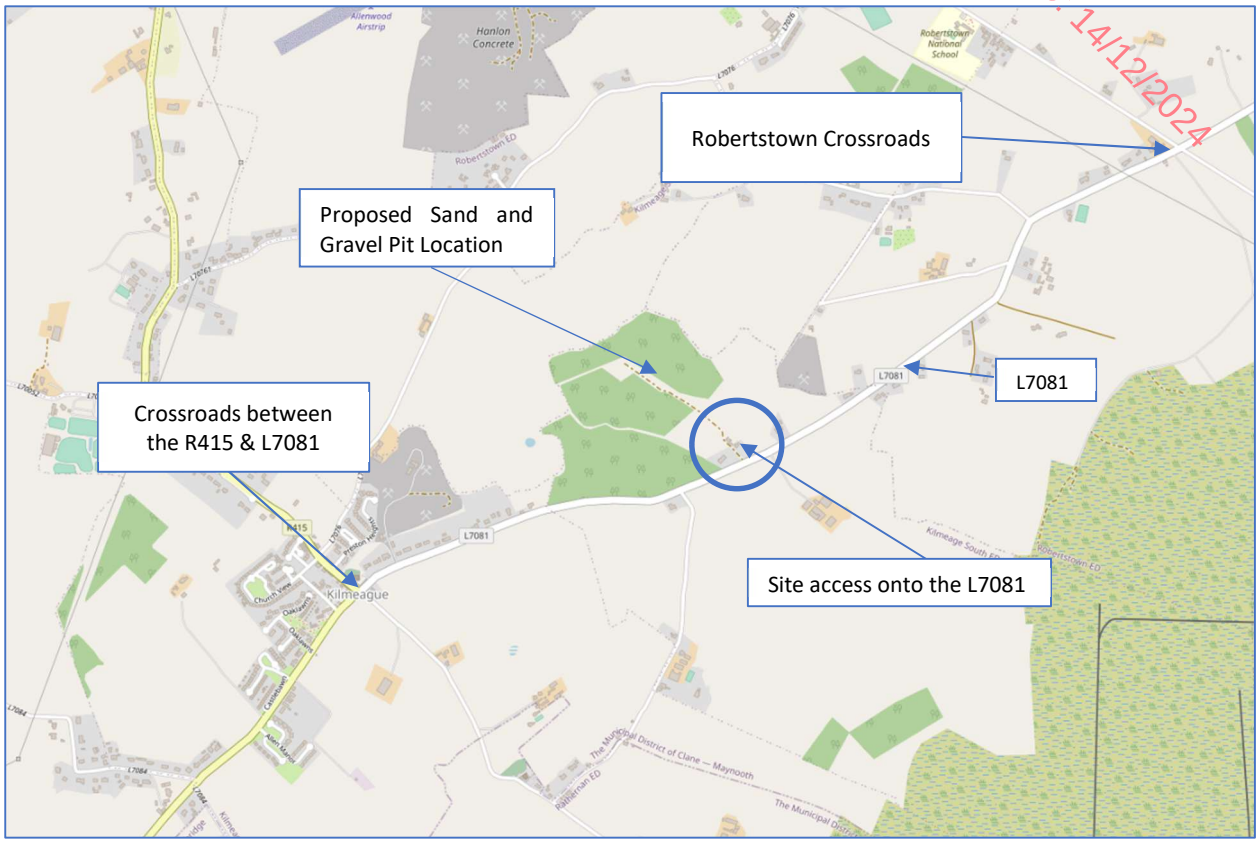

Figure 0-1: Location Plan (Source: www.openstreetmap.org)

Existing Conditions

The Site

13.9 The proposed development will consist of a Sand and Gravel extraction and processing facility which is expected to export up to 250,000 tonnes of Sand and Gravel and import 160,000 tonnes tonnes of soil and stone per annum to provide the Applicant with the ability to respond to demand for materials for building and infrastructure projects in the region.

13.10 The planning application relates to a new Sand & Gravel site located just outside the townland of Kilmeague, Co. Kildare. The lands surrounding the subject site can be characterised as rural, with land uses in the area comprising agriculture and single house residential.

13.11 The development will use a new private access on the L7081, approximately 1km northeast of Kilmeague. Operations at the proposed pit will include sand & gravel extraction and processing.

Existing Road Network

13.12 The L7081 Local Road is a local road which leads to the proposed sand and gravel pit location. The L7081 is a two-way single carriageway which is approximately 6m wide. The road is approximately 3km in length and runs in a Southwest to Northeast direction. The posted speed limit for this road is 80kph.

13.13 The R415 is a regional road which is located 1km to the southwest of the proposed sand and gravel pit access. The R415 is a two-way single carriageway which is approximately 7.5m wide. The road is approximately 17km in length and extends from An Crois to Kildare in a North to South direction. The posted speed limit is 80kph.

Traffic Volumes

13.14 Traffic counts were carried out on Tuesday 21st of February 2023 at the junctions between the Robertstown Crossroads, the R415/L7081 and the L7081 with the site access. Each of the traffic counts were carried out between 7:00am and 7:00pm. Surveyed vehicles were broken down into five categories as follows:

- Cars
- LGV's (Light Goods Vehicles)
- OGV1 (Two and three axle goods vehicles)
- OGV2 (Four and five axle goods vehicles)
- Buses

13.15 The count data for each site has been converted to Annual Average Daily Traffic (AADT) values using the methodology described in "Expansion Factors for Short Period Traffic Counts" (Unit 16.1 TII Publications Project Appraisal Guidelines for National Roads, October 2016). Annexes A to C of the above document were used in the expansion of traffic counts to AADT's. The AADT was calculated to determine the percentage increase in traffic volumes on the road network as a result of the trips generated by the proposed development.

13.16 A combined factor of 0.775 was arrived at by combining the individual hourly factors for the count duration. This factor was then used to determine the 24-hour traffic flow. This was then converted to a Weekly Average Daily Traffic (WADT) using an index of 0.97 for the Tuesday traffic count. Finally, this was converted to AADT using an index of 1.03 for the month of February. These factors were used to calculate the AADT for each of the 3 junctions.

13.17 The detailed results of the traffic survey are summarised in Table 0-1 to Table 0-3. The morning and evening peak hours have been established as follows:

- R145 & L7085/L7081 Crossroads Junction (referred to as the 'R415 Junction' in this report) – 08:00 to 09:00 (AM Peak) and 16:30 to 17:30 (PM Peak)
- Robertstown Local Road & L7081 Crossroads Junction (referred to as the 'Robertstown Junction' in this report) – 08:00 to 09:00 (AM Peak) and 17:00 to 18:00 (PM Peak)
- L7081 & the site access T- Junction (referred to as the 'Site Access' in this report) – 08:00 to 09:00 (AM Peak) and 16:00 to 17:00 (PM Peak)

Table 0-1: AADTs at R145 Junction

Hour Ending	R415 (West)	R415 (North)	L7081	L7085
08:00	459	419	216	180
09:00	638	541	296	171
10:00	410	337	179	104
11:00	309	237	140	64
12:00	311	240	127	76
13:00	360	301	146	85
14:00	456	358	182	98
15:00	383	296	166	75

16:00	393	365	163	119
17:00	595	473	285	163
18:00	623	535	264	196
19:00	454	400	200	162
Period Total	5,391	4,502	2,364	1,493
Period Total HGVs	732	485	310	55
% HGVs	14%	11%	13%	4%
Total AADT	6,950	5,804	3,048	1,925

Table 0-2: AADTs at Robertstown Junction

Hour Ending	L7081 (West)	Robertstown Local Road (North)	L7081 (East)	Robertstown Local Road (South)
08:00	218	86	220	78
09:00	315	218	389	98
10:00	167	87	170	52
11:00	137	75	135	39
12:00	116	78	136	40
13:00	124	64	127	41
14:00	182	107	176	61
15:00	164	125	162	75
16:00	163	107	178	62
17:00	266	151	279	98
18:00	279	174	280	135
19:00	218	135	230	81
Period Total	2,349	1,407	2,482	860
Period Total HGVs	228	67	234	33
% HGVs	10%	5%	9%	4%
Total AADT	3,028	1,814	3,200	1,109

Table 0-3: AADTs at Site Access

Hour Ending	L7081
08:00	207
09:00	307
10:00	177
11:00	118
12:00	130
13:00	154
14:00	163
15:00	168
16:00	205
17:00	263
18:00	251
19:00	199
Period Total	2,342
Period Total HGVs	180
% HGVs	8%
Total AADT	3,019

General

13.18 The site is expected to export up to 250,000 tonnes of sand and gravel, and import approximately 160,000 tonnes of soil and stone from/to the site annually. The site will operate a processing facility of sand and gravel, including washing, screening, and crushing.

Trip Generation

13.19 In determining the daily traffic volumes associated with the development an average of 63 loads per day from the site has been calculated based on the following assumptions:

- The facility will operate for 48 weeks per year.
- Material will be transported to the site in 25 tonne loads on average for the export and import of material (20 tonne loads on 8 wheelers and 30 tonne loads on articulated vehicles and 10 wheelers).
- The facility opening times will be 07:00 to 18:00 on Monday to Friday and 08:00 to 14:00 on Saturday, giving 5.5 days per week.

Table 0-4: Exported Material (Sand and Gravel)

Exported Quantities	
Total Exported Material (tonnes per annum)	250,000
Quantity per Week (48 operational weeks / year)	5,209 (5,208.33)
Quantity per day (5.5 operational days / year)	947 (946.96)
Loads per Day (25 tonnes / load)	38

Table 0-5: Imported Material (Soil and Stone)

Imported Quantities	
Total Imported Material (tonnes per annum)	160,000
Quantity per Week (48 operational weeks/ year)	3,333 (3,333.33)
Quantity per day (5.5 operational days / year)	606 (606.06)
Loads per Day (25 tonnes / load)	25

13.20 The site will employ 10 staff members and it is not anticipated that these numbers will increase. Staff movements will generate 10 peak hour trips, 10 trips inbound in the morning and 10 trips outbound in the evening peak. Staff car movements have been distributed in accordance with the existing vehicle distribution at the junction surveyed.

13.21 A total of 2 trips have been assumed to occur daily to cater for miscellaneous trips associated with the site. These miscellaneous trips allow for operational meetings, site inspections, etc. For the purpose of a robust assessment, all miscellaneous trips associated with the operation of the Sand and Gravel pit were assumed to occur on the same day during peak hours.

13.22 The distribution of the development traffic on the adjacent road network is based on an assessment of the existing traffic flows at the site access derived from the traffic count data.

13.23 Table 0-6 details the trip distribution that has been applied to the development traffic as part of the junction capacity analysis.

Table 0-6: Summary of Predicted Daily Trips in Opening Year and Beyond

Development	Type of Traffic	Daily Trips	
		Arrivals	Departures
Site	Export of Material (HGVs)	38	38
	Import of Material (HGVs)	25	25
	Staff (LVs)	10	10
	Misc (LVs)	1	1
Total		74	74

Haulage Routes

13.24 HGV traffic exiting the proposed sand and gravel pit will turn either north towards the R403 Regional Road or south towards the M7 Motorway, onto the L7081.

13.25 HGV traffic travelling south towards the M7 motorway will be passing through the Allen's Cross junction before heading east onto the L7087 Local Road towards its junction with the M7 Motorway. The haulage route between the proposed Sand and Gravel Pit and the M7 Motorway is approximately 14km.

13.26 HGV traffic travelling north on the L7081 will be passing through the Robertstown Crossroads and the L7081/R409 Crossroads towards the R403, before joining the R403 Regional Road approximately 5.5km northeast of the site access.

13.27 These local, regional and national roads have cross-sections, alignments and junction layouts that are currently accommodating HGVs of a similar size and swept path as those to be used as part of this application.

13.28 The applicant has consulted with the local authority, Waterways Ireland and Irish Rail to confirm that the suggested haul routes do not give rise to any concerns – refer to Appendix 13.1.

13.29 The return journey shall follow the same routes. The haulage routes are illustrated in Figure 0-3.

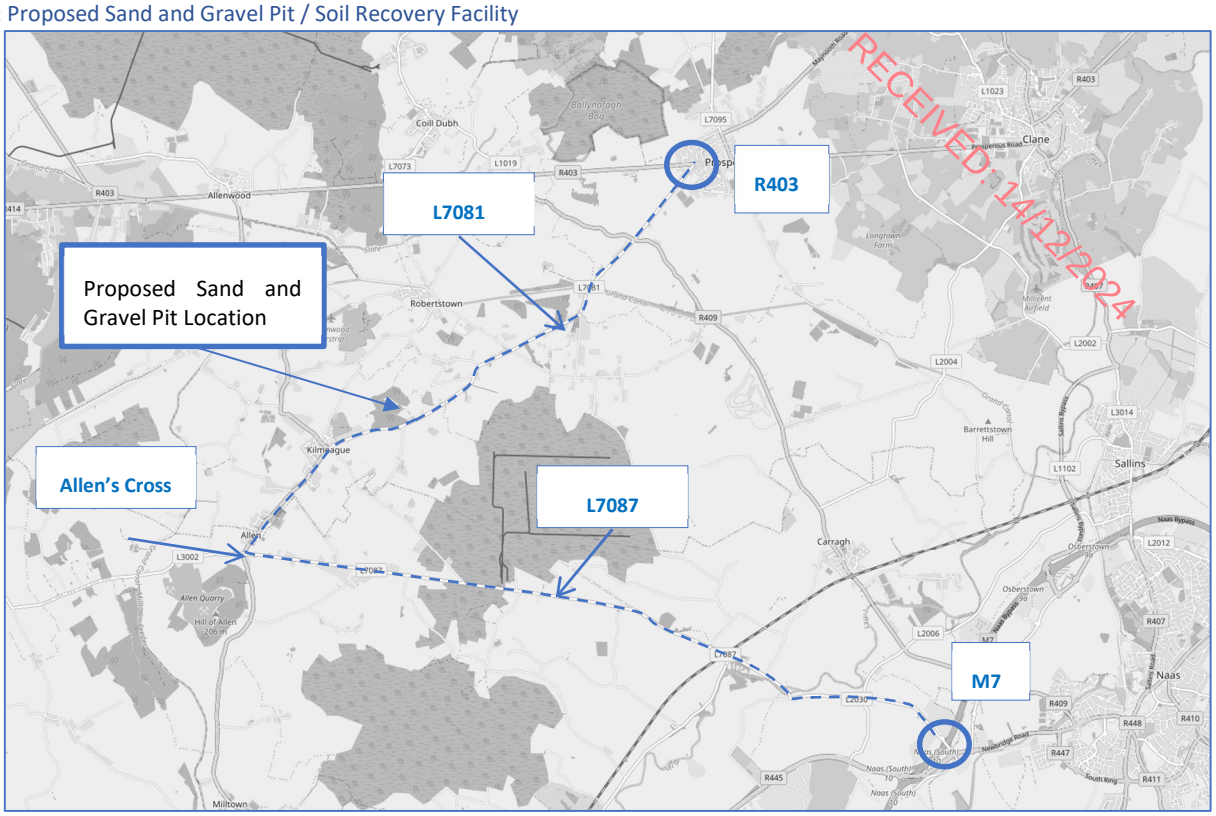

Figure 0-2: Haulage Route between proposed Sand and Gravel Pit to/from the Regional Road and the Motorway

Trip Assignment

13.30 The distribution of the development traffic on the adjacent road network is based on an assessment of the existing traffic flows at the assessed junctions derived from the traffic count data and the projected haul routes. The traffic assignment is illustrated in Figure 0-3 and Figure 0-6.

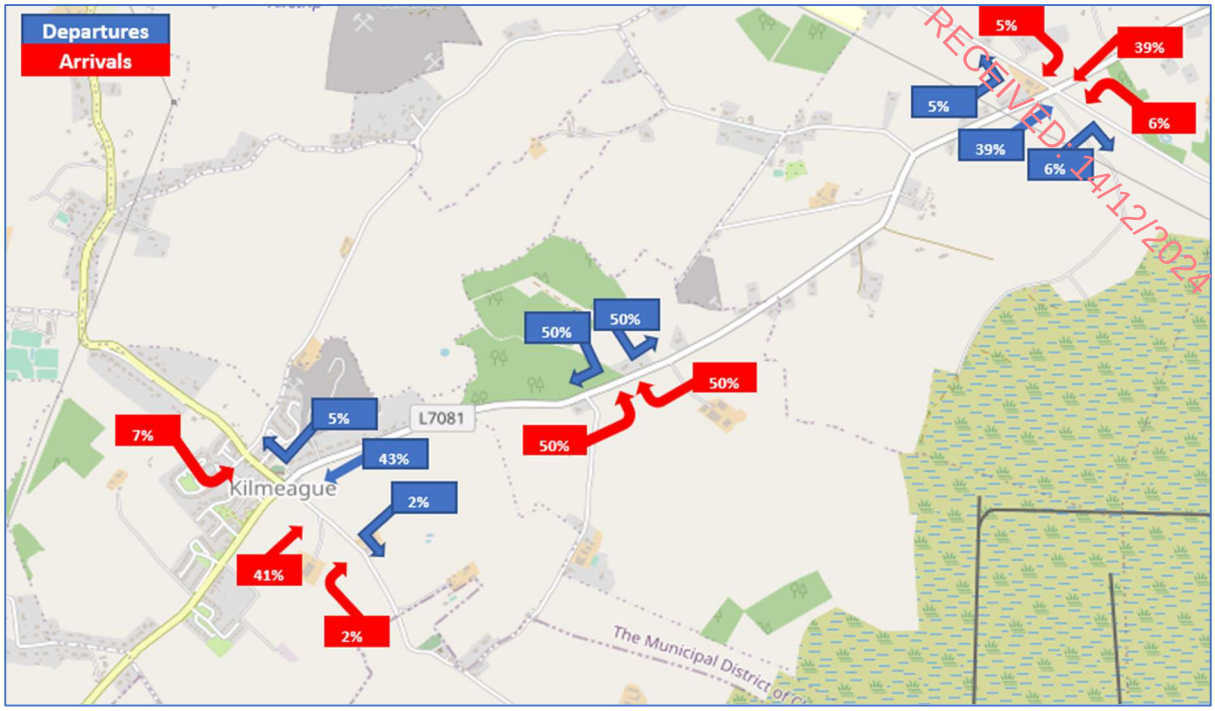

Figure 0-3: Assignment of Traffic Throughout the Adjacent Road Network (LVs)

Figure 0-4: Assignment of Traffic Throughout the Adjacent Road Network (HGVs)

Scope of Assessment

13.31 The site operations at Kilmeague, Co. Kildare, will result in an increase in the traffic volumes at junctions within the road network in the vicinity of the proposed development.

13.32 Section 2.1 of the "Traffic and Transport Assessment Guidelines" published by Transport Infrastructure Ireland recommends that in an urban or congested setting that a traffic assessment should cover all roads and junctions where the development traffic exceeds 5% of the existing or background traffic, or 10% of background traffic when located in rural areas.

13.33 Figure 0-5 outlines the distributed development traffic as a percentage of the background traffic on the adjacent road network.

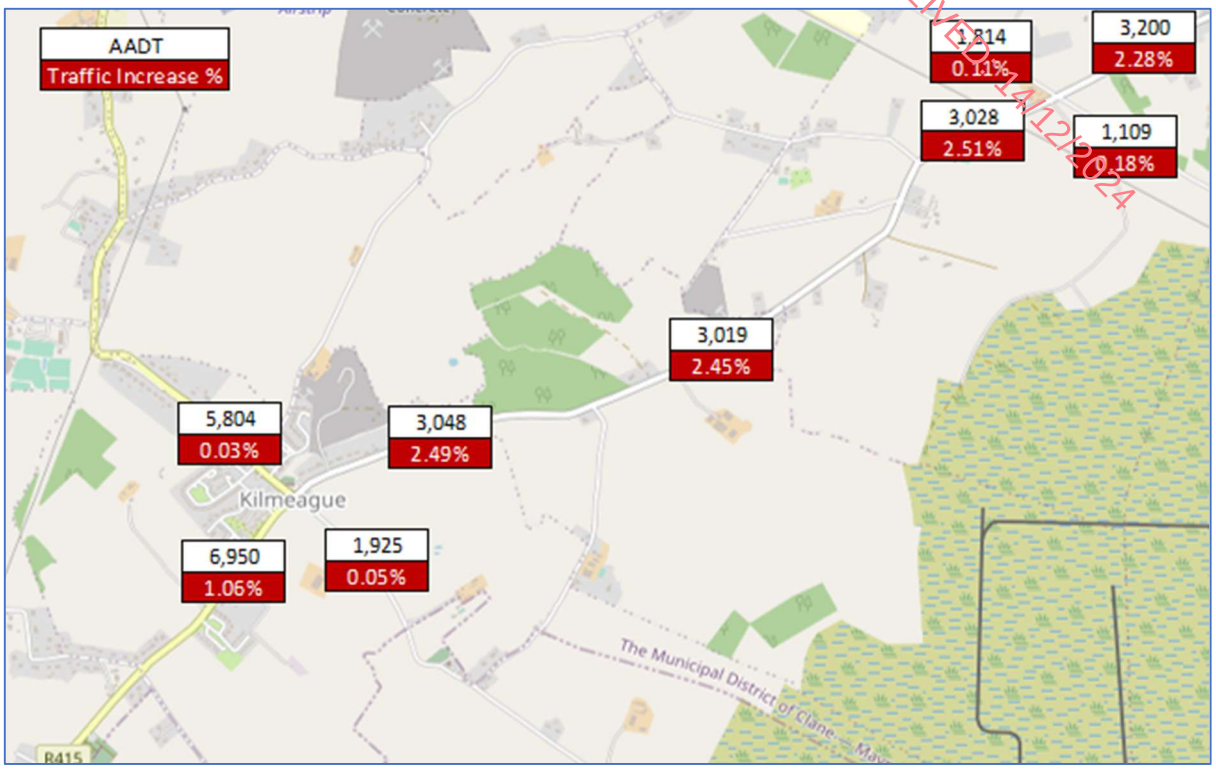

Figure 0-5: AADT and Site Traffic as a Percentage of Existing Traffic

As shown in Figure 0-5, the development traffic does not exceed 5% of background traffic on any of the junctions on the local road network along the primary route. However, to ensure a robust assessment is undertaken, this Traffic and Transport Assessment shall undertake a capacity assessment of the site access.

Road Impacts

Assessment Years

13.34 The "Traffic and Transport Assessment Guidelines" published by Transport Infrastructure Ireland recommend the assessment of traffic in the Opening Year, for the Opening Year +5 years and the Opening Year +15 years. The assessment years for the impact assessment are therefore 2025 for the Opening Year, 2030 and 2040 for the Future Assessment Years.

Traffic Growth

13.35 The "Project Appraisal Guidelines - Unit 5.3 – Travel Demand Projections (PE-PAG-02017)" published by TII in October 2021 has been used to determine future year traffic flows on the network from the 2023 traffic count data.

13.36 Table 0-7 contains a summary of the traffic growth factors published in the "Project Appraisal Guidelines". For this assessment, a central growth scenario has been adopted (a 'central' growth scenario was assumed given the site location and scale).

Table 0-7: Future Year Traffic Growth Figures (County Kildare)

Year	Low Growth		Central Growth		High Growth	
	LV	HV	LV	HV	LV	HV
2016-2030	1.0180	1.0363	**1.0197**	**1.0378**	1.0229	1.0413
2030-2040	1.0044	1.0135	**1.0062**	**1.0155**	1.0098	1.0191
2040-2050	1.0035	1.0169	**1.0053**	**1.0187**	1.0107	1.0283

Link Capacity Assessment

13.37 The TII Publications document reference DN-GEO-03031 provides guidance on recommended rural road layouts in its Table 6/1. It advises that the capacity of a Type 3 Single Carriageway road with 6.0m cross-section is 5,000 AADT for a Level of Service D. The L7081, adjacent to the site, has an average cross-section width of approximately 6m with no hard shoulders present. Therefore, the L7081 is considered to be most similar to the Type 3 Single Carriageway cross-section.

13.38 The combined background and site traffic volumes, outlined in Table 0-8 in each of the assessment years is less than the LOS D capacity of 5,000 AADT for a Type 3 Single Carriageway. It is considered, therefore, that the L7081 will operate within capacity for each of the assessment years, so will have an imperceptible impact on the local road network.

13.39 Table 0-8 indicates that the traffic associated with the proposed development represents between 3.88% and 4.58% of the total traffic on the L7081 during the assessment years 2025 to 2040.

Table 0-8: Combined AADT for each Assessment Year (L7081)

	Assessment Year		
	2025	2030	2040
Background Traffic	3,083	3,423	3,671
Additional Development Traffic	148	148	148
Combined Traffic (Background + Additional Dev. Traffic)	3,231	3,571	3,819
Additional Traffic as % of Combined Traffic	4.58%	4.14%	3.88%

Junction Capacity Analysis – L7801/Site Access

13.40 The capacity of the L7801/Site Access junction was assessed using the Transport Research Laboratory's (TRL) computer programme Junctions 9.

13.41 Junction performance is measured as a ratio between the flow and capacity (RFC). The capacity analysis has been carried out for each weekday for a period of 12-hours, which corresponds to the operational hours of the sand & gravel pit, for each of the assessment years (2025, 2030, and 2040). A rural junction with an RFC below 0.85 is considered to be operating within capacity, and an RFC of 0.85 indicates a junction operating at capacity.

13.42 The detailed junction capacity analysis outputs for the junction for all the future forecast assessment years are contained within Appendix 13.1 to this report.

13.43 The results of the Junction capacity assessment indicate that the junction will operate within capacity for each of the assessment years 2025, 2030 and 2040, so will have an imperceptible impact on the local road network.

Table 0-9: Summary of Traffic Analysis at: L7081/Site Access T-Junction

	12 Hours (07:00 – 19:00)			
	Queue (Veh)	Delay (s)	RFC	LOS
Stream	2025 with Development			
Site Access – L7081	0.0	10.32	0.03	B
L7081– L7081	0.0	8.84	0.02	A
Stream	2030 with Development			
Site Access – L7081	0.0	10.46	0.03	B
L7081– L7081	0.0	8.80	0.02	A
Stream	2040 with Development			
Site Access – L7081	0.0	10.56	0.03	B
L7081– L7081	0.0	8.76	0.02	A

Road Safety

Site Access

13.44 Access to the proposed development site shall be at a new proposed access onto the L7081 Local Road. Trucks will proceed through the entrance, before turning left to the extraction area. Trucks will exit the site at the same entrance.

13.45 The proposed measures would include relocating and widening the access to better accommodate HGVs entering and exiting, providing a grass verge where the existing access is located and providing a timber post and tension mesh fence along the boundary of the proposed access. The proposed access layout is shown in Appendix 13.1.

13.46 A Stage 1 Road Safety Audit has been carried out on the proposed site access of the L7081 (Ref. Appendix 13.1).

13.47 Table 0-10 summarises the findings and recommendations of the Stage 1 Road Safety Audit

Table 0-10 Summary of Stage 1 Road Safety Audit problem

Stage 1 Road Safety Audit	
Problem	**Recommendation**
• The L7081 includes a relatively straight alignment with downhill gradients approaching the proposed access from both directions, possibly leading to unintended acceleration. The visibility splay proposed are appropriate for a design speed of 85kph, but may be insufficient for the prevailing highest speeds recorded, in particular when considering slow-moving heavy vehicles entering and exiting the proposed new access, increasing the risk of possible side-on collisions.	• Provide measures to encourage drivers to observe the posted speed limit and provide signs on the L7081 advising approaching drivers of the upcoming entrance and to expect slow-moving large vehicles entering/exiting.

13.48 The Recommendation arising from the Audit has been accepted and the drawings have been amended to reflect these changes.

Sightlines

13.49 The visibility splays at the site access were assessed based on Section 5.6.3 of the criteria in TII Publication DN-GEO-03060 “Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade-separated and compact grade-separated junctions)”. For a Design Speed of 85kph, unobstructed visibility of 160m to the high object height (1.05m) is required in both

directions from a distance of 3m back from the edge of the major road. The posted speed limit on the L7081 is 80kph, so has a design speed of 85kph.

Figure 0-6: *Visibility along L7081 to the North and south from the Site access*

13.50 A visibility splay of 160m is available in both directions at the site access. To ensure continued provision of the existing visibility envelopes at the existing site access it would be necessary to continue regular verge/hedgerow maintenance, ensuring that the grass/foliage is cut back to maintain visibility.

Parking

13.51 It is proposed to provide 10 No. car parking spaces for staff. This number is commensurate with staff levels.

13.52 An updated site drawing has been prepared to demonstrate compliance with the Planning Authority's requirements regarding vehicular parking and associated facilities for the proposed development. The provisions shown on the updated drawing include:

- **Vehicular Parking**: Standard parking spaces have been designed to meet the required dimensions of 2.50 metres by 5.00 metres, marked with 100 mm wide white lines in durable material on a bound surface.
- **Accessible Parking**: A designated disabled parking space has been included, compliant with the Irish Wheelchair Association's *Best Practice Access Guidelines*. The space includes accessibility aisles with a width of 1.20 metres, hatched in yellow and marked with 100 mm wide white lines in a durable permanent material.
- **Electric Vehicle (EV) Charging**: EV charge points/sockets have been provided within the vehicular parking area, with units compatible with the Sustainable Energy Authority of Ireland's Triple E Register, promoting sustainability and future-proofing the development.
- **Bicycle Parking and Staff Welfare Facilities**: Bicycle parking spaces have been incorporated to accommodate staff and visitors arriving by bike. Additionally, staff welfare facilities include showers, lockers, and changing rooms to encourage active commuting and improve overall amenities.

Impact Assessment: Operational

13.53 Link capacity analysis was carried out on the L7081, and it was determined that the link road will continue to operate within capacity for each of the assessment years: 2025, 2030 and 2040.

13.54 The results of the junction capacity analysis indicates that all junctions will operate within capacity for each of the assessment years: 2025, 2030, and 2040.

13.55 Based on both the link and junction capacity analyses, it is concluded that the proposed development will have an **imperceptible impact** on the local road network.

13.56 Sightlines have been assessed against Section 5.6.3 of TII Publications document DN-GEO-03060, which requires 160m of unobstructed visibility (where the design speed is 85kph) at a point 3.0m back from the edge of the carriageway. Visibility in both directions was found to meet, and exceed, the requirements of TII Publications document DN-GEO-03060.

13.57 There is sufficient parking provision within the site to accommodate staff parking.

13.58 The results of this traffic assessment demonstrate that the development will have an imperceptible impact on traffic flows on the existing road network due to the low volumes of traffic being generated.

Proposed Mitigation Measures and/or Factors

Proposed Mitigation Measures and Management

13.59 Following the link, and junction, capacity assessments, the trips associated with the operation of the proposed development, were found to have an imperceptible impact on the link capacity of the L7081 Local Road, and the junction capacity of the site access on the L7081 Local Road.

13.60 Visibility splays were found to be available in both directions at the site access. However, To ensure continued provision of the existing visibility envelopes at the existing site access it would be necessary to continue regular verge/hedgerow maintenance, ensuring that the grass/foliage is cut back to maintain visibility.

13.61 The impact of the proposed development, in relation to road safety and the existing road infrastructure, was also determined to be imperceptible.

Unplanned Events

13.62 Unforeseen incidents, Section 3.3.6 of the EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports indicates that EIARs should address unplanned effects as relevant (examples include accidents, spills, floods and fires). Directive 2014/52/EU further requires that the EIAR takes account of the vulnerability of the project to risk of major accidents and / or disasters relevant to the project concerned. The Directive gives examples of 'flooding, sea level rise, or earthquakes'.

13.63 No significant impacts on Traffic and Transportation arising from unplanned events such as major accidents and disasters including spills, floods and fires have been identified by the assessment.

'Do-Nothing' Scenario

13.64 If the proposed development does not proceed, the proposed Sand and Gravel Pit will not be constructed. However, the demand for material is likely to remain, and would therefore need to be met from other sources.

13.65 The impact on the wider road network would likely be unchanged or increase, for example consistent with transport distances from replacement sources of material.

Cumulative and In-Combination Effects

13.66 A search of planned future developments which may have an impact on future traffic flows in the vicinity of the development was undertaken for approved developments, not yet built or operational, of relevance to the consideration of cumulative impacts in respect of traffic and transportation and none were identified.

Interaction with Other Environmental Attributes

13.67 The vehicular traffic flows that shall be generated by the development may result in corresponding changes to noise levels and air quality in the vicinity of the surrounding road network. The nature, extent and consequences of these changes are examined in Chapters 10 and 11 of this EIAR respectively.

Indirect Effects

13.68 The indirect effects of the development, in relation to traffic, on the surrounding road environment are deemed to be imperceptible.

Residual Effects

13.69 The residual effects of the development, in relation to traffic, on the surrounding road environment are deemed to be imperceptible.

Difficulties Encountered

13.70 There were no particular difficulties encountered during the compilation of this chapter.

APPENDICES

Appendix 13.1 TTA

Quarry Consulting

Proposed Sand and Gravel Pit/Soil Recovery Facility, Kilmeague, Co. Kildare

Traffic and Transport Assessment

P·M·C·E

December 2024

Quarry Consulting

Proposed Sand and Gravel Pit/Soil Recovery Facility, Kilmeague, Co. Kildare

Traffic and Transport Assessment

Document Ref:	P23023-PMCE-ZZ-00-RP-TR-TR-3_00_01

Rev	Prepared By	Reviewed By	Approved By	Issue Date	Reason for Revision
5.0	AP	TAG	TAG	10th December 2024	Final Report
4.0	AP	TAG	TAG	5th December 2024	Revised Draft Report
3.0	AP	TAG	TAG	22nd November 2024	Revised Draft Report
2.0	AP	TAG	TAG	7th March 2024	Final Report
1.0	AMG/AP	TAG	TAG	24th March 2023	Draft Report

P·M·C·E

T +353 (1) 464 3041
F +353 (1) 459 1836
info@pmceconsultants.com
www.pmceconsultants.com

Unit 17, Greenmount House
Greenmount Office Park
Harold's Cross, Dublin 6W
D6W VX78, Ireland

Executive Summary

This report assesses the traffic related impacts associated with the proposed Sand and Gravel Pit in Kilmeague, Co. Kildare. The proposed site will be accessed directly from the L7081 Local Road which, in the vicinity of the site, runs in a southwest to northeast direction. The development shall have an annual export capacity of up to 250,000 tonnes and an annual import capacity of up to 160,000 tonnes.

Twelve-hour classified vehicle turning counts were carried out on the 21st February 2023 at the site access on the L7081, the R415/L7081 Crossroads Junction, and the Robertstown Crossroads Junction.

The daily trip associated with site operations accounts for a maximum of 148 trips daily, 126 of which relate to HGV's (85.14%). This number of trips is conservative and allows for periods where the import of material occurs in concentrated peaks (i.e. worst-case scenario).

Link capacity analysis was undertaken on the L7081, and it was determined that the L7081 will continue to operate within capacity for each of the assessment years 2025, 2030, and 2040. Traffic generated by the development will account for 3.88% to 4.58% of total traffic on the L7081 from 2025 to 2040.

Junction capacity analysis was undertaken where the traffic increase exceeded 10% of background traffic, as per the Traffic and Transport Assessment Guidelines. The results of the Junction Capacity Analysis indicate that each junction assessed will continue to operate within capacity for each of the assessment years 2025, 2030, and 2040.

Sightlines have been assessed at the development access against Section 5.6.3 of TII Publications document DN-GEO-03060, which requires 160m of unobstructed visibility (where the design speed is 85kph) at a point 3.0m back from the edge of the carriageway. Visibility in both directions was found to meet, and exceed, the requirements of TII Publications document DN-GEO-03060.

This Traffic and Transport Assessment concludes that the local road network will continue to operate within capacity for each of the assessment years 2025, 2030, and 2040 and that the proposed land improvement works will have a negligible impact on the operation of the road network.

Glossary of Terms

Road Network:	The existing and proposed public and private roads within the study area.
Traffic Growth:	The normal expected growth in traffic over time.
Trip:	One movement, in or out of the study area by foot, cycle or vehicle.
Thresholds:	Minimum intervention levels at which Transport and Traffic Assessments are to be conducted.
Generated Trips:	Additional trips made as a result of the presence of a development.
Peak Time:	Time of day at which the transport demands from a development are greatest.
Capacity Calculations:	Standardised methods of estimating traffic capacity on links and at junctions.
Trip Distribution:	The estimated directional distribution of the estimated traffic at each junction in the study area.
Trip Assignment:	The final estimated flows of traffic for each direction of travel at each junction and along each link within the study area.
TRICS:	A database containing empirically obtained trip generation data for a wide range of different types of developments.
AADT:	Annual Average Daily Traffic – The mean daily traffic volume over the course of a year on a particular route.
Level of Service:	Level of Service (LOS) is a measure of the capacity of a road related to the average vehicular speed and level of congestion on the road. It is ranges from LOS A to LOS F, with A representing free flow and F representing stop/start traffic. LOS C represents stable flow conditions

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1 Introduction

1.1 General

PMCE Ltd were commissioned by Quarry Consulting to undertake an assessment of the traffic impacts associated with the proposed Sand and Gravel Pit in Kilmeague, Co. Kildare.

1.2 Information Reviewed

In preparing this report reference has been made to the following documents:

- "Traffic and Transport Assessment Guidelines" (May 2014) published by Transport Infrastructure Ireland (TII).
- "Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections" (October 2021) published by TII.
- "Project Appraisal Guidelines for National Roads Unit 16.1 - Expansion Factors for Short Period Traffic Counts" (October 2016) published by Transport Infrastructure Ireland.
- Traffic Count Survey Data, collected by Traffinomics.
- TII Publications document DN-GEO-03031, "Rural Road Link Design" (June 2017,May 2023) published by TII.
- TII Publications document DN-GEO-03060, "Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade-separated and compact grade-separated junctions)" (June 2017,May 2023) published by TII.

1.3 Scope

The objective of this report is to examine the traffic implications associated with the proposed Sand and Gravel Pit in terms of its integration with existing traffic in the area. The report determines and quantifies the extent of additional trips generated by the development, and the impact on operational performance of such trips on the local road network.

1.4 Methodology

The methodology adopted for this appraisal and report involved, in brief:

- **Site Visit:** A site visit was undertaken on the 9th March 2023. The weather was wet, and the ground surface was damp.
- **Trip Generation and Trip Assignment**: This is used to derive trip rates for a 12-hour period and to assign such trips to the surrounding road network according to which direction of travel vehicles will travel to/from the site in Kilmeague, Co. Kildare.
- **Link Capacity Assessment**: To obtain an AADT value for the main road linking the proposed site in Kilmeague to the surrounding network.
- **Junction Capacity Assessment:** The traffic count data was used to develop Junctions 9 models for the assessed junctions.
- **Future Year Assessments:** The estimated future year volumes on the study area network, as a result of the increase in background traffic and any site related traffic, was used to assess the future operational performance of the junctions and surrounding road network for 2025 (assumed year of opening), and at two future assessment years, the opening year +5 (2030) and the opening year +15 (2040).

1.5 Location plan

The location of the proposed Sand and Gravel Pit and Soil Recovery Facility in Kilmeague, Co. Kildare, and the surrounding road network is shown in Figure 1-1.

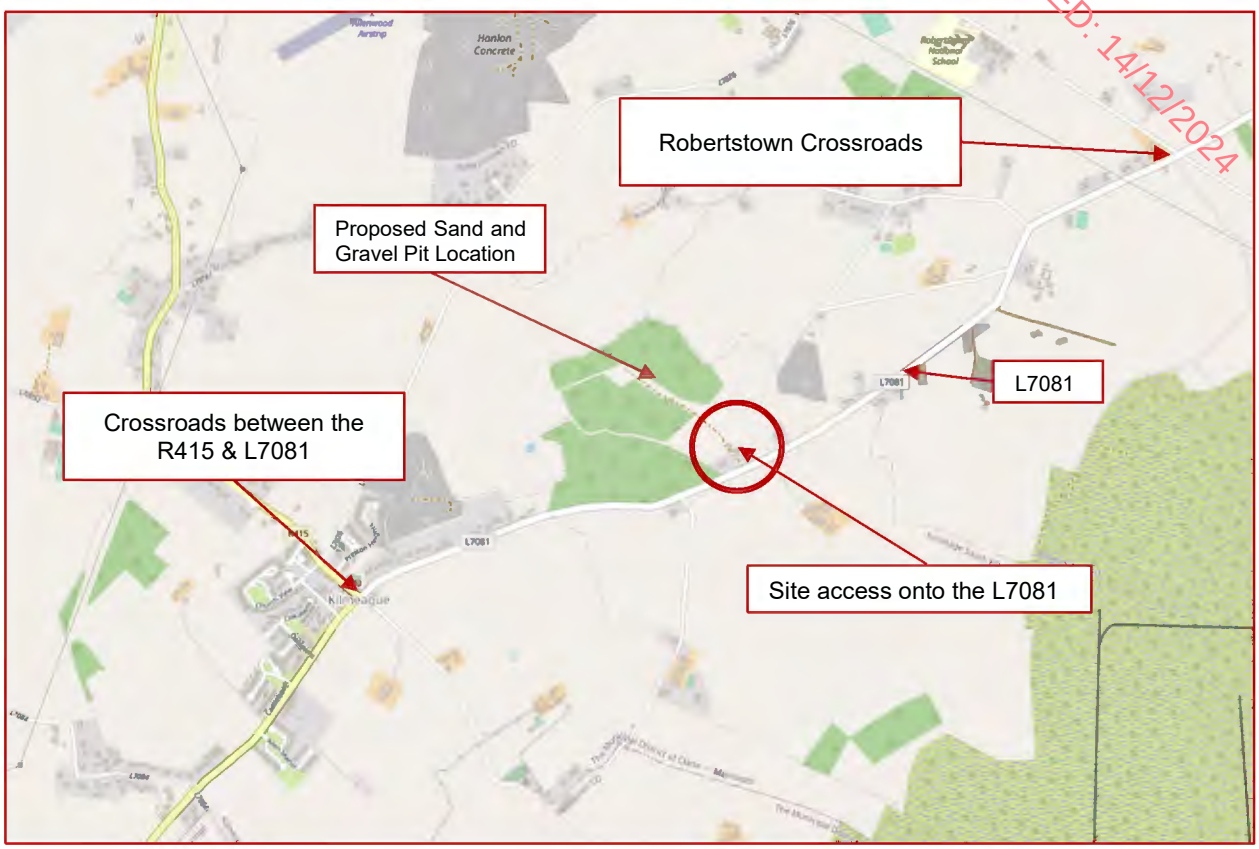


FIGURE 1-1: LOCATION PLAN (SOURCE: WWW.OPENSTREETMAP.ORG**)**

2 Existing Conditions

2.1 The Site

The proposed development will consist of a Sand and Gravel extraction and processing facility which is expected to export up to 250,000 tonnes of Sand and Gravel and import 160,000 tonnes of Soil and Stone per annum to provide the Applicant with the ability to respond to demand for materials for building and infrastructure projects in the region.

The planning application relates to a new Sand & Gravel Pit and Soil Recovery Facility site located just outside the townland of Kilmeague, approximately 8km West of Naas, and 8km north of Kildare town. The lands surrounding the subject site can be characterised as rural, with land uses in the area comprising agriculture and single house residential. The development will use a new private access on the L7081, approximately 1km northeast of Kilmeague. The operations at the proposed pit will include sand & gravel extraction and processing.

2.2 Existing Road Network

2.2.1 L7081

The L7081 Local Road is a local road which leads to the proposed sand and gravel pit location. The L7081 is a two-way single carriageway which is approximately 6m wide.

The road is approximately 3km in length and runs in a Southwest to Northeast direction. The posted speed limit for this road is 80kph.

FIGURE 2-1: L7081 LOOKING NORTH FROM THE SITE ACCESS

2.2.2 R415

The R415 is a Regional road which is located 1km to the southwest of the proposed sand and gravel pit access. The R415 is a two-way single carriageway which is approximately 7.5m wide.

The road is approximately 17km in length and extends from An Crois to Kildare in North to South direction. The posted speed limit is 80kph.

2.3 Traffic Volumes

Traffic counts (12-Hour classified counts) were carried out on Tuesday the 21st of February 2023 at the following locations:

- The Robertstown Crossroads Junction.
- The R415/L7081 Crossroads Junction.
- The L7081 in the vicinity of the site access.

Each of the traffic counts were carried out between 7:00am and 7:00pm. Surveyed vehicles were broken down into five categories as follows:

1. Cars
2. LGV's (Light Goods Vehicles)
3. OGV1 (Two and three axle goods vehicles)
4. OGV2 (Four and five axle goods vehicles)
5. Buses

The detailed results of the traffic survey are summarised in Appendix B. The morning and evening peak hours have been established as follows:

- **Junction 1**: R415 & L7085/L7081 Crossroads Junction (referred to as the '**R415 Junction**' in this report) – 08:00 to 09:00 (AM Peak) and 16:30 to 17:30 (PM Peak)
- **Junction 2**: Robertstown Local Road & L7081 Crossroads Junction (referred to as the '**Robertstown Junction**' in this report) – 08:00 to 09:00 (AM Peak) and 17:00 to 18:00 (PM Peak)
- **Junction 3**: L7081 & the site access T- Junction (referred to as the '**Site Access**' in this report) – 08:00 to 09:00 (AM Peak) and 16:00 to 17:00 (PM Peak)

The count data for each site has been converted to Annual Average Daily Traffic (AADT) values using the methodology described in "Expansion Factors for Short Period Traffic Counts" (Unit 16.1 NRA Project Appraisal Guidelines, October 2016). Annexes A to C of the above document were used in the expansion of traffic counts to AADT's. The AADT was calculated to determine the percentage increase in traffic volumes on the road network as a result of the trips generated by the proposed development.

A combined factor of 0.775 was arrived at by combining the individual hourly factors for the count duration. This factor was then used to determine the 24-hour traffic flow. This was then converted to a Weekly Average Daily Traffic (WADT) using an index of 0.97 for the Tuesday traffic count. Finally, this was converted to AADT using an index of 1.03 for the month of February. These factors were used to calculate the AADT for each of the 3 junctions.

The resulting AADT figures at each junction are provided in Appendix C.

3 Proposed Development

3.1 Trip Generation

The site is expected to export up to 250,000 tonnes of Sand and Gravel and import approximately 160,000 tonnes of Soil and Stone from/to the site annually. The site will operate a processing facility of sand and gravel, including washing, screening and crushing.

In determining the daily traffic volumes associated with the development an average of 63 loads per day from the site has been calculated based on the following assumptions:

- The facility will operate for 48 weeks per year.
- Material will be transported to the site in 25 tonne loads on average for the export and import of material (20 tonne loads on 8 wheelers and 30 tonne loads on articulated vehicles and 10 wheelers).
- The facility opening times will be 07:00 to 19:00 on Monday to Friday and 08:00 to 14:00 on Saturday, giving 5.5 days per week.

Table 3-1: Exported Material (Sand and Gravel)

Exported Quantities	
Total Exported Material (tonnes per annum)	250,000
Quantity per Week (48 operational weeks / year)	5,209 (5,208.33)
Quantity per day (5.5 operational days / year)	947 (946.96)
Loads per Day (25 tonnes / load)	38

Table 3-2: Imported Material (Soil and Stone)

Imported Quantities	
Total Imported Material (tonnes per annum)	160,000
Quantity per Week (48 operational weeks/ year)	3,333 (3,333.33)
Quantity per day (5.5 operational days / year)	606 (606.06)
Loads per Day (25 tonnes / load)	25

The site will employ 10 staff members, and it is not anticipated that these numbers will increase. Staff movements will generate 10 peak hour trips, 10 trips inbound in the morning and 10 trips outbound in the evening peak. Staff car movements have been distributed in accordance with the existing vehicle distribution at the junction surveyed.

A total of 2 trips have been assumed to occur daily for miscellaneous trips associated with the site. These miscellaneous trips allow for operations meetings, site inspections, etc. For the purpose of a robust assessment, all miscellaneous trips associated with the operation of the Sand and Gravel pit were assumed to occur on the same day during peak hours.

3.2 Trip Distribution

The distribution of the development traffic on the adjacent road network is based on an assessment of the existing traffic flows at the site access derived from the traffic count data.

Table 3-3 details the trip composition of site traffic that has been applied to the development traffic as part of the junction capacity analysis.

TABLE 3-3: SUMMARY OF PREDICTED DAILY TRIPS IN OPENING YEAR AND BEYOND

Development	Type of Traffic	Daily Trips	
		Arrivals	Departures
Site	Export of Material (HGVs)	38	38
	Import of Material (HGVs)	25	25
	Staff (LVs)	10	10
	Misc (LVs)	1	1
Total		74	74

3.3 Haulage Routes

3.3.1 Haul Routes

HGV traffic exiting the proposed sand and gravel pit will turn either north towards the R403 Regional Road or south towards the M7 Motorway, onto the L7081.

HGV traffic travelling south towards the M7 motorway will be passing through the Allen's Cross junction before heading east onto the L7087 Local Road towards its junction with the M7 Motorway (see Figure 3-1). The haulage route between the proposed Sand and Gravel Pit and the M7 Motorway is approximately 14km.

HGV traffic travelling north on the L7081 will be passing through the Robertstown Crossroads and the L7081/R409 Crossroads towards the R403, before joining the R403 Regional Road approximately 5.5km northeast of the site access.

These local, regional and national roads have cross-sections, alignments and junction layouts that are currently accommodating HGVs of a similar size and swept path as those to be used as part of this application.

The applicant has consulted with the local authority, Waterways Ireland and Irish Rail to confirm that the suggested haul routes do not give rise to any concerns. Consultation with relevant stakeholders, including Waterways Ireland and CIE, has been undertaken and documented, see sections 3.3.2 to 3.3.4.

The return journey shall follow the same routes. The haulage routes are illustrated in Figure 3-1.

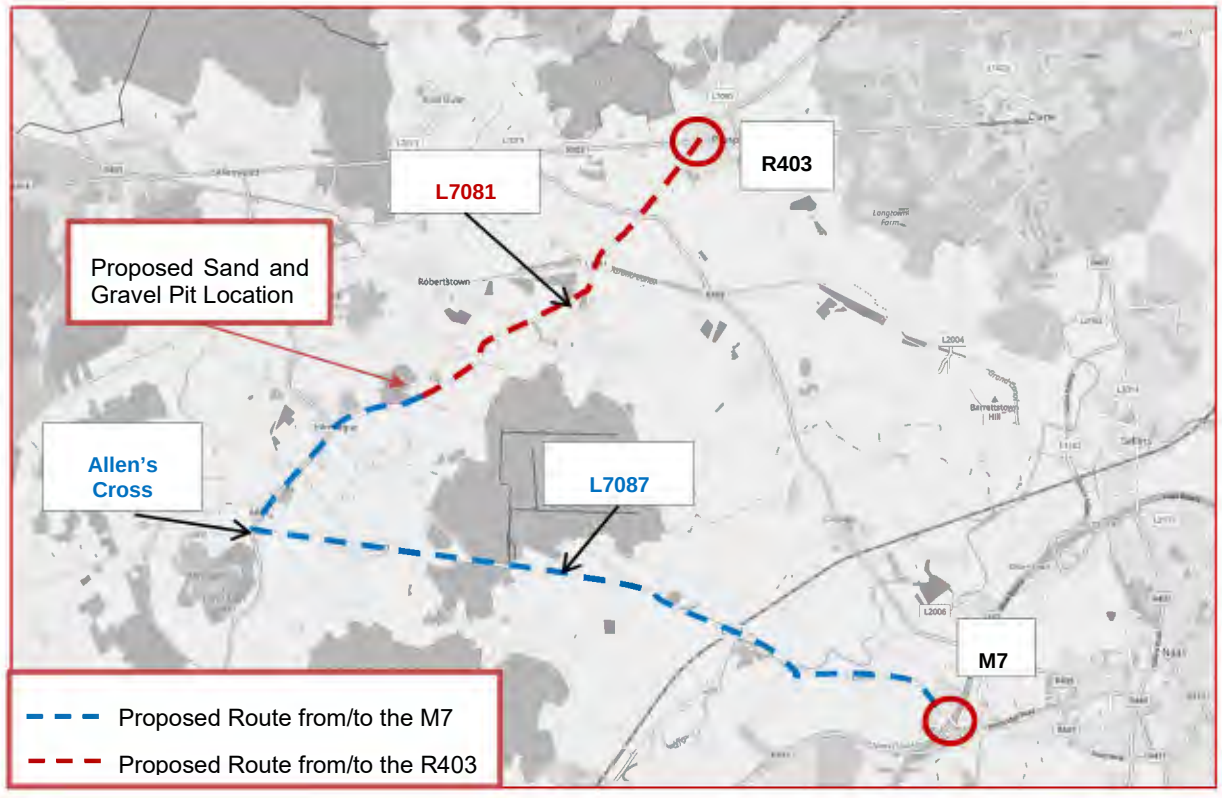


FIGURE 3-1: HAULAGE ROUTE BETWEEN PROPOSED SAND AND GRAVEL PIT TO/FROM THE REGIONAL ROAD AND THE MOTORWAY

3.3.2 Consultation with Kildare County Council

The applicant has consulted with the Local Area Engineer of the Local Authority (Clane Maynooth MD) to confirm that the suggested haul routes do not give rise to any concerns pertaining to weight restrictions and bridges in the surrounding area while satisfying the constraints outlined by the Planning Authority as part of the Kildare County Council's Request for Further Information (planning reference 24/60202), and no objections were raised. The applicant also engaged with the Road Planning department, over the course of two months, from October to December 2024, and the Road Planning department has not responded.

The applicant shall continue to liaise with the Road Planning department and will consider any issues that may arise by the consultation (Ref. Appendix H).

3.3.3 Consultation with CIE

The Local authority has asked the applicant to liaise with CIE to confirm that the suggested haul routes do not give rise to any concerns. The applicant has engaged with CIE, who didn't identify any weight or width restrictions that would preclude the proposed routes. (Ref. Appendix I).

3.3.4 Consultation with Waterways Ireland

The applicant is not aware of any conflict of the suggested haul routes with water courses. The Local authority has asked the applicant to liaise with Waterways Ireland, as part of the Kildare County Council's Request for Further Information (planning reference 24/60202). The applicant over the course of two months, from October to December 2024, has engaged with Waterways Ireland, and Waterways Ireland have not responded.

The applicant shall continue to liaise with Waterways Ireland and will consider any issues that may arise by the consultation (Ref. Appendix J).

3.4 Trip Assignment

The distribution of the development traffic on the adjacent road network is based on an assessment of the existing traffic flows at the assessed junctions derived from the traffic count data and the projected haul routes.

This is illustrated in Figure 3-2 and Figure 3-3.

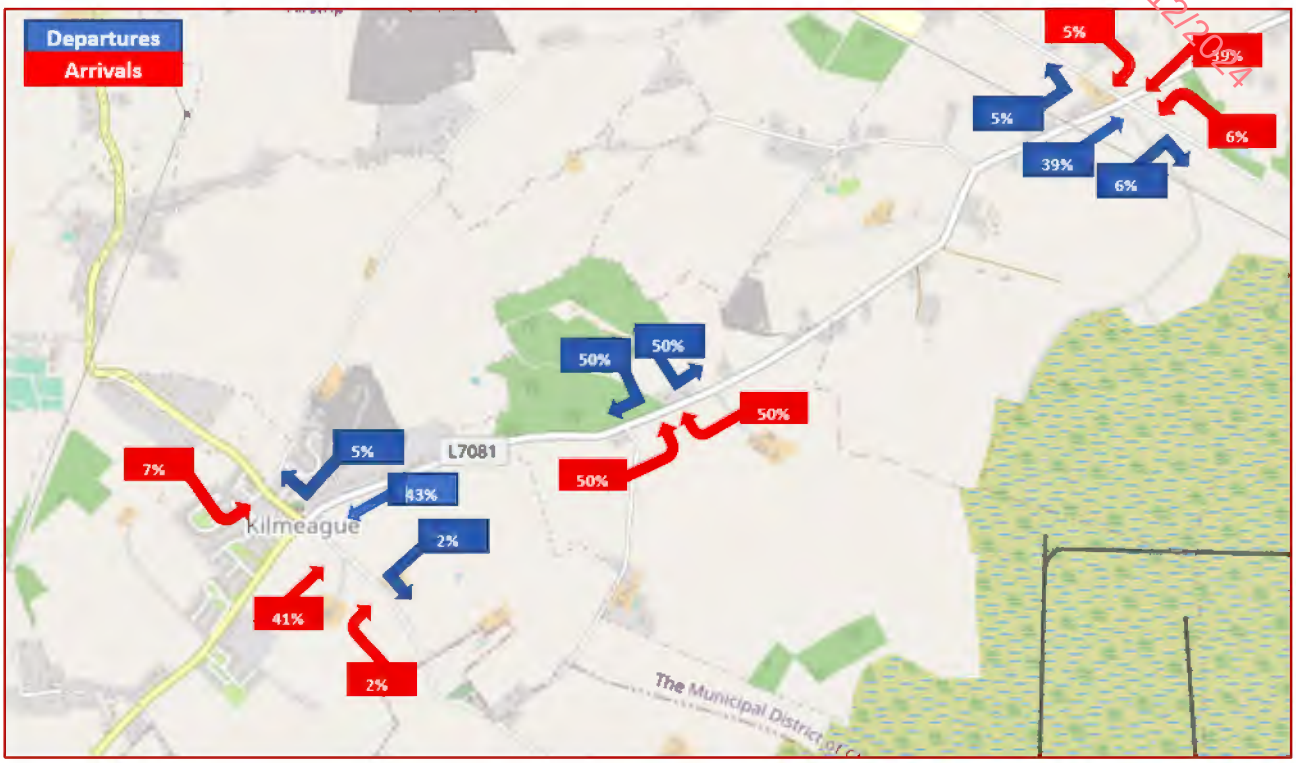


FIGURE 3-2: ASSIGNMENT OF TRAFFIC THROUGHOUT THE ADJACENT ROAD NETWORK (LVS)

FIGURE 3-3: ASSIGNMENT OF TRAFFIC THROUGHOUT THE ADJACENT ROAD NETWORK (HGVS)

3.5 Scope of Assessment

The site operations at Kilmeague, Co. Kildare, will result in an increase in the traffic volumes at junctions within the road network in the vicinity of the proposed development.

Section 2.1 of the "Traffic and Transport Assessment Guidelines" published by Transport Infrastructure Ireland recommends that in an urban or congested setting that a traffic assessment should cover all of the roads and junctions where the development traffic exceeds 5% of the existing or background traffic, or 10% of background traffic when located in rural areas.

Figure 3-4 outlines the distributed development traffic as a percentage of the background traffic on the adjacent road network.

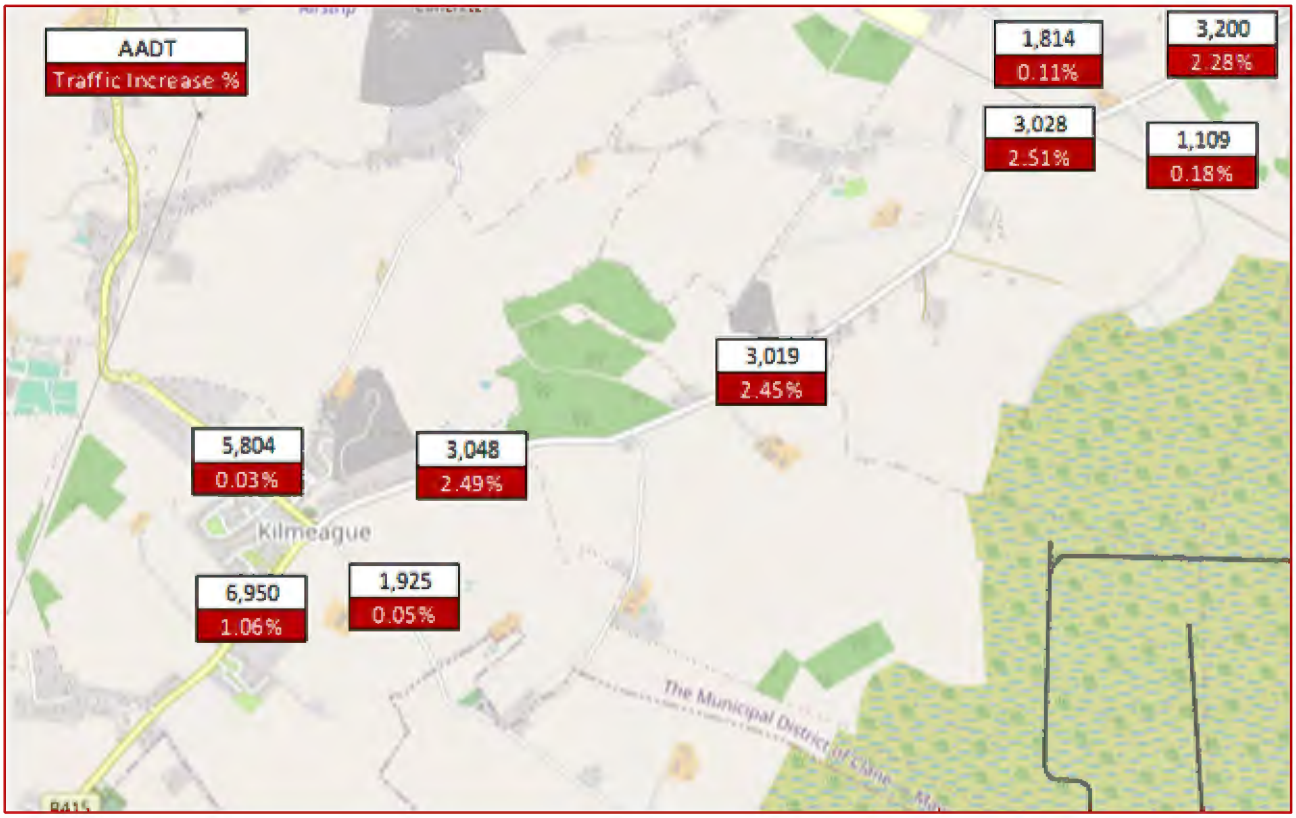


FIGURE 3-4: AADT AND DEVELOPMENT TRAFFIC AS A PERCENTAGE OF EXISTING TRAFFIC

As shown in Figure 3-4, the development traffic does not exceed 5% of background traffic on any of the junctions on the local road network along the primary route.

However, to ensure a robust assessment is undertaken, this Traffic and Transport Assessment shall undertake a capacity assessment of the site access.

4 Road Impacts

4.1 Assessment Years

The “Traffic and Transport Assessment Guidelines” published by Transport Infrastructure Ireland recommend the assessment of traffic in the Opening Year, for the Opening Year +5 years and the Opening Year +15 years.

The assessment years for the impact assessment are therefore 2025 for the Opening Year, 2030 and 2040 for the Future Assessment Years.

4.2 Traffic Growth

The "Project Appraisal Guidelines - Unit 5.3 – Travel Demand Projections (PE-PAG-02017)" published by TII in October 2021 has been used to determine future year traffic flows on the network from the 2023 traffic count

Table 4-1 contains a summary of the traffic growth factors published in the "Project Appraisal Guidelines". For this assessment, a central growth scenario has been adopted (a ‘central’ growth scenario was assumed given the site location and scale).

TABLE 4-1: FUTURE YEAR TRAFFIC GROWTH FIGURES (COUNTY KILDARE)

Year	Low Growth		Central Growth		High Growth	
	LV	HV	LV	HV	LV	HV
2016-2030	1.0180	1.0363	**1.0197**	**1.0378**	1.0229	1.0413
2030-2040	1.0044	1.0135	**1.0062**	**1.0155**	1.0098	1.0191
2040-2050	1.0035	1.0169	**1.0053**	**1.0187**	1.0107	1.0283

4.3 Link Capacity Assessment

The TII Publications document reference DN-GEO-03031 provides guidance on recommended rural road layouts in its Table 6/1. It advises that the capacity of a Type 3 Single Carriageway road with 6.0m cross-section is 5,000 AADT for a Level of Service D. The L7081, adjacent to the site, has an average cross-section width of approximately 6m with no hard shoulders present. Therefore, the L7081 is considered to be most similar to the Type 3 Single Carriageway cross-section in this document with a capacity of 5,000 AADT for Level of Service D.

The combined background and site traffic volumes, outlined in Table 4-2 in each of the assessment years is less than the LOS D capacity of 5,000 AADT for a Type 3 Single Carriageway. It is considered, therefore, that the L7081 will operate within capacity for each of the assessment years. Table 4-2 indicates that the traffic associated with the proposed development represents between 3.88% and 4.58% of the total traffic on the L7081 during the assessment years 2025 to 2040.

TABLE 4-2: COMBINED AADT FOR EACH ASSESSMENT YEAR (L7081)

	Assessment Year		
	2025	2030	2040
Background Traffic	3,083	3,423	3,671
Additional Development Traffic	148	148	148
Combined Traffic (Background + Additional Dev. Traffic)	3,231	3,571	3,819
Additional Traffic as % of Combined Traffic	4.58%	4.14%	3.88%

4.4 Junction Capacity Analysis

The capacity of the surveyed junctions was assessed using the Transport Research Laboratory's (TRL) Junctions 9 computer programme.

Junction performance is measured as a ratio between the flow and capacity (RFC). The capacity analysis has been carried out for a period of 12-hours, which corresponds to the operational hours of the sand and gravel pit for each of the assessment years (2025, 2030, and 2040). A rural junction with an RFC below 0.85 is considered to be operating within capacity, and an RFC of 0.85 indicates a junction operating at capacity.

The capacity of a stream or arm of a junction refers to the maximum flow of vehicles entering the junction, within a given time period and is based on the formula given in LR942 (Kimber, 1980). The formulae describing the theoretical capacity of a junction were derived empirically and have a ±15% confidence interval. Consequently, the standard approach to junction capacity analysis, for priority-controlled junctions, uses an RFC of 0.85 to describe the theoretical maximum capacity, however in reality there may be additional capacity above this level.

Where the flow on an arm, in a given time period, exceeds the theoretical capacity this will result in increased time to traverse the junction, leading to delays and queues forming. In normal operation queues forming at a junction will dissipate over time as the volume of vehicles arriving at the junction fall below the available capacity.

The capacity of a signalised junction can also be measured by its Level of Service (LOS). The LOS is denoted by a letter ranging from A – F. The following list describes the traffic conditions on a road network for each Level of Service:

- **LOS A:** Free-flow traffic with individual users virtually unaffected by the presence of others in the traffic stream (free-flow)
- **LOS B:** Stable traffic flow with a high degree of freedom to select speed and operating conditions but with some influence from other users (reasonably free flow)
- **LOS C:** Restricted flow that remains stable but with significant interactions with others in the traffic stream. The general level of comfort and convenience declines noticeably at this level (stable flow)
- **LOS D:** High-density flow in which speed and freedom to manoeuvre are severely restricted and comfort and convenience have declined even though flow remains stable (approaching unstable flow)
- **LOS E:** Unstable flow at, or near, capacity levels with poor levels of comfort and convenience (unstable flow)
- **LOS F:** Forced traffic flow in which the amount of traffic approaching a point exceeds the amount that can be served. This is characterised by stop-and-go waves, poor travel times and low comfort and convenience (forced or breakdown flow)

It is therefore considered that a junction operating at a LOS E is close to, or at, capacity and a junction operating at LOS F is considered to be above capacity.

The detailed junction capacity analysis outputs for the analysed junction, for each of the assessment years, are contained within Appendix D to this report.

4.4.1 Junction 3: L7081/Site Access T-Junction

A summary of the junction capacity analysis results for the junction of the L7081 Local Road and the access to the proposed development is shown in Table 4-3. Junction 1 is the site access, which is currently not used, and as a result the modelling scenario 'Without Development' was not included. The results indicate that the junction will operate within capacity for each of the assessment years 2025, 2030 and 2040.

TABLE 4-3: SUMMARY OF TRAFFIC ANALYSIS AT: L7081/SITE ACCESS T-JUNCTION

	12 Hours (07:00 – 19:00)			
	Queue (Veh)	Delay (s)	RFC	LOS
Stream	**2025 with Development**			
Site Access – L7081	0.0	10.32	0.03	B
L7081– L7081	0.0	8.84	0.02	A
Stream	**2030 with Development**			
Site Access – L7081	0.0	10.46	0.03	B
L7081– L7081	0.0	8.80	0.02	A
Stream	**2040 with Development**			
Site Access – L7081	0.0	10.56	0.03	B
L7081– L7081	0.0	8.76	0.02	A

5 Road Safety

5.1 Site Access

5.1.1 Site Access Layout

Access to the proposed development site shall be at a new proposed access onto the L7081 Local Road. Trucks will proceed through the entrance, before turning left to the extraction area. Trucks will exit the site at the same entrance.

The proposed measures would include relocating and widening the access to better accommodate HGVs entering and exiting, providing a grass verge where the existing access is located and providing a timber post and tension mesh fence along the boundary of the proposed access. The proposed access layout is shown in Appendix E.

5.1.2 Stage 1 Road Safety Audit

A Stage 1 Road Safety Audit has been carried out on the proposed site access of the L7081 (Ref. Appendix F). Table 5.1 summarises the findings and recommendations of the Stage 1 Road Safety Audit

TABLE 5.1: SUMMARY OF STAGE 1 ROAD SAFETY AUDIT PROBLEM

Stage 1 Road Safety Audit	
Problem	**Recommendation**
• The L7081 includes a relatively straight alignment with downhill gradients approaching the proposed access from both directions, possibly leading to unintended acceleration. The visibility splay proposed are appropriate for a design speed of 85kph, but may be insufficient for the prevailing highest speeds recorded, in particular when considering slow-moving heavy vehicles entering and exiting the proposed new access, increasing the risk of possible side-on collisions.	• Provide measures to encourage drivers to observe the posted speed limit and provide signs on the L7081 advising approaching drivers of the upcoming entrance and to expect slow-moving large vehicles entering/exiting.

The Recommendation arising from the Audit has been accepted and the drawings have been amended to reflect these changes.

5.1.3 Structural Evaluation and Pavement Investigation

A structural evaluation and pavement investigation of the pavement condition on the L7081 Local Road has also being carried out on 50m either side of the proposed entrance using the Falling Weight Deflectometer (FWD) and coring to the NRA HD41/15 Guidance for National Roads which determined the current pavement conditions on the L7081 and the required pavement structural strengthening design options on a 20-year design life considering the number and vehicle types and associated turning movements. The proposed measures would include resurfacing of the pavement at the access to better accommodate HGVs entering and exiting. (Ref. Appendix G).

5.1.4 Sightlines

Sightlines at the access have been assessed against Section 5.6.3 of TII Publications document DN-GEO-03060, which requires 160m of unobstructed visibility (where the design speed is 85kph) at a point 3.0m back from the edge of the carriageway. The posted speed limit on the L7081 is 80kph, so has a design speed of 85kph.

Visibility in both directions was found to meet, and exceed, the requirements of TII Publications document DN-GEO-03060. To ensure continued provision of the existing visibility envelopes at the existing site access it would be necessary to continue regular verge/hedgerow maintenance, ensuring that the grass/foliage is cut back to maintain visibility.

5.2 Parking

The site will contain 10 parking spaces. The parking provision is sufficient parking for the number of staff working on site. Parking provisions are compliant with the Planning Authority's requirements regarding vehicular parking and associated facilities for the proposed development.

The parking provisions include:

- **Vehicular Parking**: Standard parking spaces will be provided to meet the required dimensions of 2.50 metres by 5.00 metres, marked with 100 mm wide white lines in durable material on a bound surface.

- **Accessible Parking**: A designated disabled parking space will be provided, compliant with the Irish Wheelchair Association's *Best Practice Access Guidelines*. The space includes accessibility aisles with a width of 1.20 metres, hatched in yellow and marked with 100 mm wide white lines in a durable permanent material.

- **Electric Vehicle (EV) Charging**: EV charge points/sockets have been provided within the vehicular parking area, with units compatible with the Sustainable Energy Authority of Ireland's Triple E Register, promoting sustainability and future-proofing the development.

- **Bicycle Parking and Staff Welfare Facilities**: Bicycle parking spaces have been incorporated to accommodate staff and visitors arriving by bike. Additionally, staff welfare facilities include showers, lockers, and changing rooms to encourage active commuting and improve overall amenities.

6 Conclusions

The Traffic and Transport Assessment has determined the following conclusions:

1) Link capacity analysis was carried out on the L7081, and it was determined that the link road will continue to operate within capacity for each of the assessment years: 2025, 2030 and 2040.

2) The results of the junction capacity analysis indicates that all junctions will operate within capacity for each of the assessment years: 2025, 2030, and 2040.

3) Sightlines have been assessed against Section 5.6.3 of TII Publications document DN-GEO-03060, which requires 160m of unobstructed visibility (where the design speed is 85kph) at a point 3.0m back from the edge of the carriageway. Visibility in both directions was found to meet, and exceed, the requirements of TII Publications document DN-GEO-03060.

4) There is sufficient parking provision within the site to accommodate staff parking.

5) The results of this traffic and transport assessment demonstrate that the development will have a negligible impact on traffic flows on the existing road network due to the low volumes of traffic being generated.

Appendix A – TRICS Output

Calculation Reference: AUDIT-261601-191022-1055

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : H - QUARRY
VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	DH	DURHAM	2 days

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

Secondary 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: Site area
Actual Range: 10.00 to 40.00 (units: hect)
Range Selected by User: 10.00 to 40.00 (units: hect)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/86 to 09/11/10

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:

Tuesday	2 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	1
Free Standing (PPS6 Out of Town)	4

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:

Out of Town	4
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

B2	5 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	2 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	1 days

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

Travel Plan:

Not Known	2 days
No	3 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	5 days

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

LIST OF SITES relevant to selection parameters

1 DC-02-H-02 STONE QUARRY DORSET
SOUTHWELL STREET
NEAR PORTLAND
SOUTHWELL
Free Standing (PPS6 Out of Town)
Out of Town
Total Site area: 40.00 hect
Survey date: WEDNESDAY *03/09/97* *Survey Type: MANUAL*

2 DH-02-H-01 LIMESTONE QUARRY DURHAM
STONYBECK LANE
NEAR DURHAM
BISHOP MIDDLEHAM
Free Standing (PPS6 Out of Town)
Out of Town
Total Site area: 10.00 hect
Survey date: TUESDAY *02/12/08* *Survey Type: MANUAL*

3 DH-02-H-02 QUARRY DURHAM
HART VILLAGE
HARTLEPOOL

Free Standing (PPS6 Out of Town)
Out of Town
Total Site area: 22.80 hect
Survey date: TUESDAY *09/11/10* *Survey Type: MANUAL*

4 GM-02-H-01 STONE QUARRY GREATER MANCHESTER
GEORGE'S LANE
HORWICH

Edge of Town
No Sub Category
Total Site area: 17.00 hect
Survey date: FRIDAY *09/08/91* *Survey Type: MANUAL*

5 NR-02-H-01 GRAVEL QUARRY NORTHAMPTONSHIRE
WOLLASTON ROAD
BOZEAT
WELLINGBOROUGH
Free Standing (PPS6 Out of Town)
Out of Town
Total Site area: 14.50 hect
Survey date: WEDNESDAY *26/11/08* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/H - QUARRY
VEHICLES
Calculation factor: 1 hect
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS No. Days	ARRIVALS Ave. AREA	ARRIVALS Trip Rate	DEPARTURES No. Days	DEPARTURES Ave. AREA	DEPARTURES Trip Rate	TOTALS No. Days	TOTALS Ave. AREA	TOTALS Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	20.86	0.393	5	20.86	0.153	5	20.86	0.546
07:30 - 08:00	5	20.86	0.249	5	20.86	0.211	5	20.86	0.460
08:00 - 08:30	5	20.86	0.230	5	20.86	0.163	5	20.86	0.393
08:30 - 09:00	5	20.86	0.201	5	20.86	0.221	5	20.86	0.422
09:00 - 09:30	5	20.86	0.259	5	20.86	0.240	5	20.86	0.499
09:30 - 10:00	5	20.86	0.268	5	20.86	0.192	5	20.86	0.460
10:00 - 10:30	5	20.86	0.153	5	20.86	0.173	5	20.86	0.326
10:30 - 11:00	5	20.86	0.182	5	20.86	0.182	5	20.86	0.364
11:00 - 11:30	5	20.86	0.173	5	20.86	0.163	5	20.86	0.336
11:30 - 12:00	5	20.86	0.173	5	20.86	0.153	5	20.86	0.326
12:00 - 12:30	5	20.86	0.105	5	20.86	0.153	5	20.86	0.258
12:30 - 13:00	5	20.86	0.153	5	20.86	0.163	5	20.86	0.316
13:00 - 13:30	5	20.86	0.192	5	20.86	0.201	5	20.86	0.393
13:30 - 14:00	5	20.86	0.230	5	20.86	0.240	5	20.86	0.470
14:00 - 14:30	5	20.86	0.249	5	20.86	0.211	5	20.86	0.460
14:30 - 15:00	5	20.86	0.221	5	20.86	0.259	5	20.86	0.480
15:00 - 15:30	5	20.86	0.192	5	20.86	0.182	5	20.86	0.374
15:30 - 16:00	5	20.86	0.182	5	20.86	0.125	5	20.86	0.307
16:00 - 16:30	4	22.45	0.156	4	22.45	0.134	4	22.45	0.290
16:30 - 17:00	4	22.45	0.134	4	22.45	0.156	4	22.45	0.290
17:00 - 17:30	4	22.45	0.067	4	22.45	0.111	4	22.45	0.178
17:30 - 18:00	4	22.45	0.033	4	22.45	0.234	4	22.45	0.267
18:00 - 18:30	4	22.45	0.011	4	22.45	0.089	4	22.45	0.100
18:30 - 19:00	4	22.45	0.011	4	22.45	0.011	4	22.45	0.022
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			4.217			4.120			8.337

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

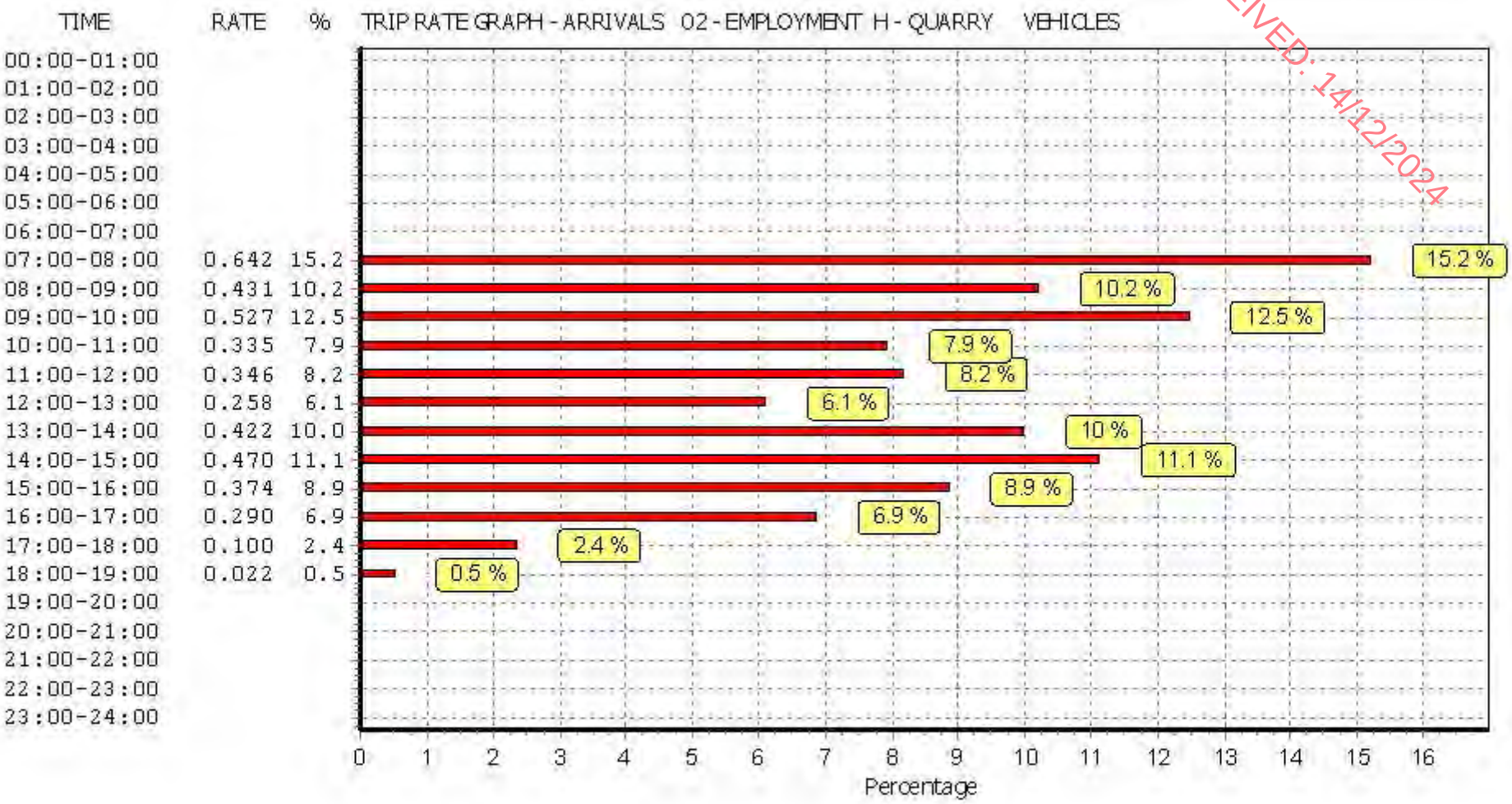
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

Parameter summary

Trip rate parameter range selected:	10.00 to 40.00 (units: hect)
Survey date date range:	01/01/86 - 09/11/10
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

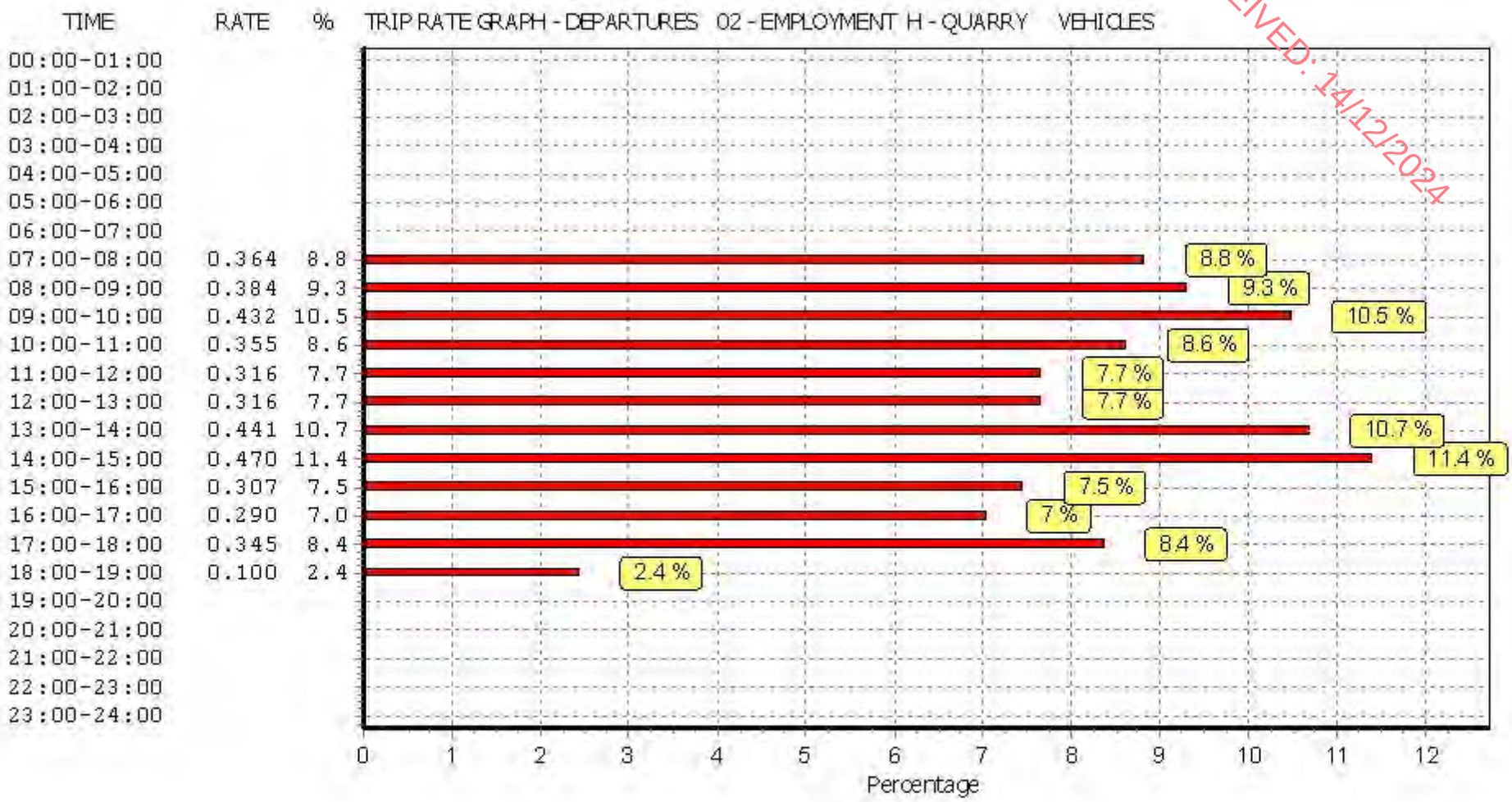
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

PMCE Ltd Lower Commons Road Dublin 22 Licence No: 261601



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

PMCE Ltd Lower Commons Road Dublin 22 Licence No: 261601



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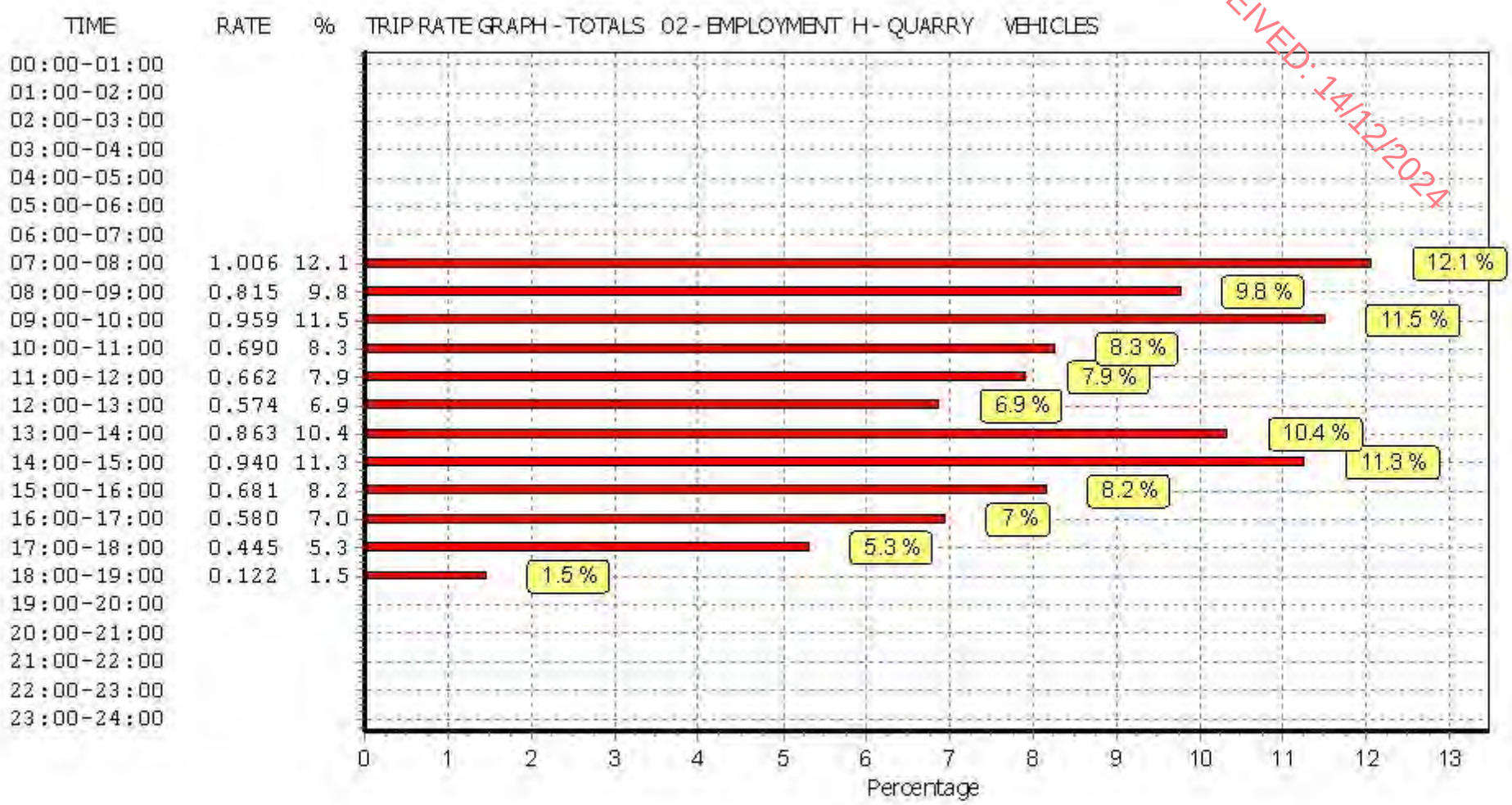
PMCE Ltd Lower Commons Road Dublin 22 Licence No: 261601



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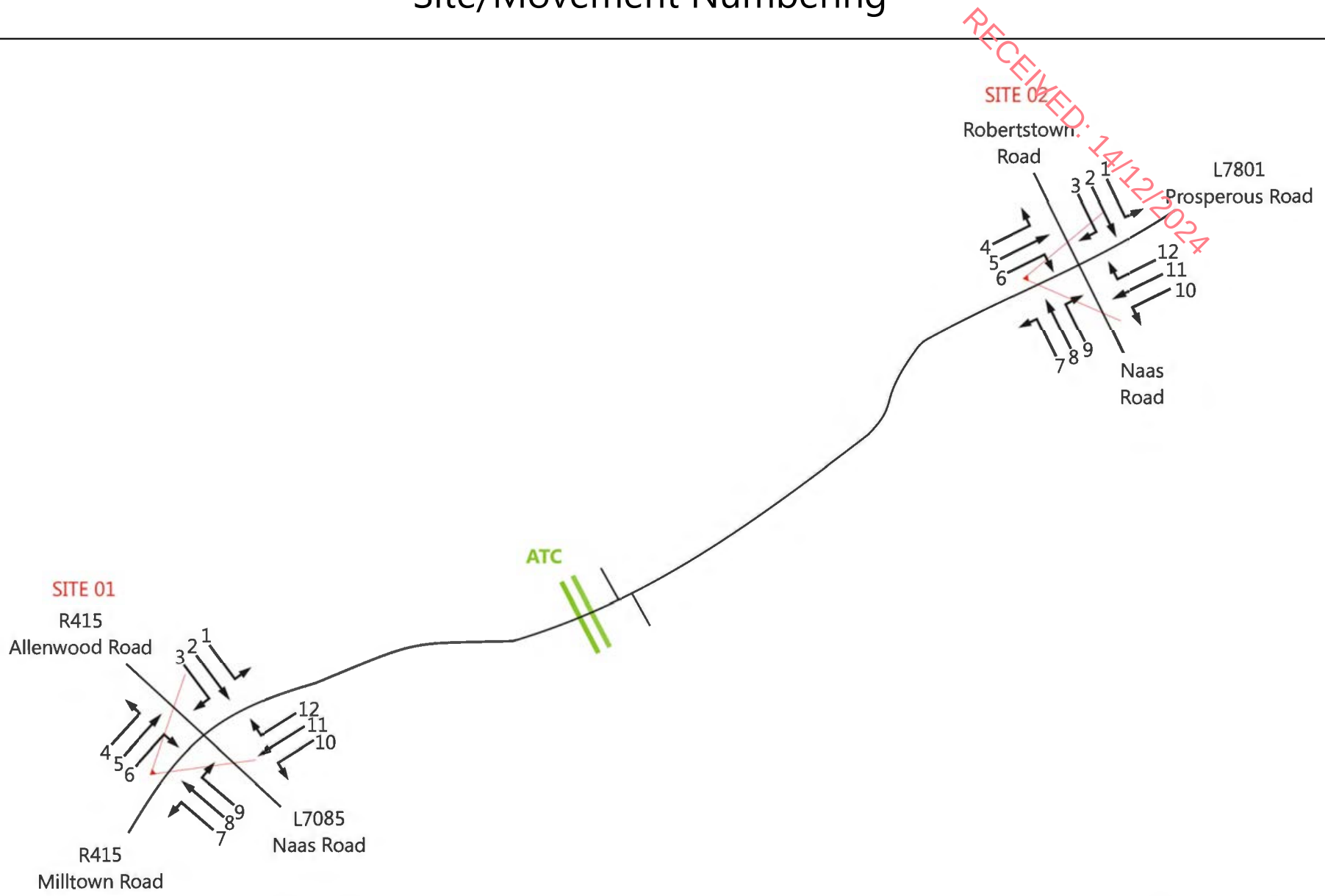
Appendix B – Traffic Survey Data

Site/Movement Numbering



Job number: TRA/23/037	Job Date: 21st February 2023	Drawing No: TRA/23/037-02	traffinomics.ie
Client: PMCE Consulting Engineers	Job Day: Tuesday	Author: SPW	

TRAFFINOMICS LIMITED

KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **SUMMARY** **WEEK COMMENCING: Tuesday 21 February 2023**

AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01

LOCATION: L7081 Prosperous Road @ Clients Proposed Access - (Goolgle Maps Ref: 53.254618, -6.820709)

SPEED SURVEY SUMMARY:

EASTBOUND	85% Speed = 89.91 km/h, 95% Speed = 98.37 km/h, Median = 78.48 km/h	Maximum = 143.9 km/h, Minimum = 15.1 km/h, Mean = 79.0 km/h
WESTBOUND	85% Speed = 88.29 km/h, 95% Speed = 97.02 km/h, Median = 77.13 km/h	Maximum = 158.6 km/h, Minimum = 10.4 km/h, Mean = 77.8 km/h

VOLUMETRIC VEHICLE COUNTS:

Direction	Time	Tuesday 21 February 2023	Wednesday 22 February 2023	Thursday 23 February 2023	Friday 24 February 2023	Saturday 25 February 2023	Sunday 26 February 2023	Monday 27 February 2023	No. Vehicles	7 day Mean
EASTBOUND	**07-19**	1124	1165	1170	1142	900	686	1082	7269	1038
WESTBOUND	**07-19**	1147	1171	1172	1168	915	749	1072	7394	1056
EASTBOUND	**00-00**	1339	1391	1396	1405	1059	827	1291	8708	1244
WESTBOUND	**00-00**	1333	1402	1381	1402	1085	887	1261	8751	1250

PEAK FLOW SUMMARY:

Peak	AM	IP	PM
Most Frequent Peak Hour	0800	1300	1600
Average Vehicles per Peak Hour	132	85	107

Traffinomics Limited for
PMCE Consulting Engineers

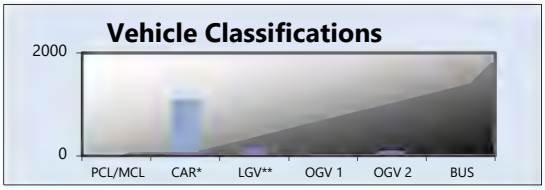
TRAFFINOMICS LIMITED

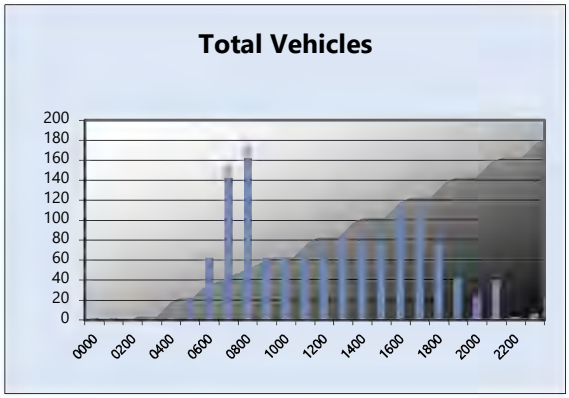
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Tuesday 21 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	0	0	0	0	2	2
0100	0	2	0	0	0	0	2	2
0200	0	0	0	0	0	0	0	0
0300	0	2	1	0	1	0	4	5
0400	0	2	0	0	0	0	2	2
0500	0	21	1	0	0	0	22	22
0600	0	50	13	0	6	0	69	77
0700	0	119	23	2	9	0	153	166
0800	0	145	17	1	10	0	173	187
0900	1	54	8	2	4	0	69	74
1000	0	43	11	0	9	1	64	77
1100	0	48	6	1	9	0	64	76
1200	0	47	9	2	4	0	62	68
1300	1	69	13	1	6	0	90	98
1400	0	67	7	1	4	0	79	85
1500	0	59	9	0	8	0	76	86
1600	0	92	11	3	7	0	113	124
1700	0	93	10	0	3	0	106	110
1800	2	61	11	0	1	0	75	75
1900	0	38	3	0	0	0	41	41
2000	0	22	2	0	0	0	24	24
2100	0	40	0	0	0	0	40	40
2200	0	3	0	0	0	0	3	3
2300	0	5	1	0	0	0	6	6
07-19	4	897	135	13	74	1	1124	1225
06-22	4	1047	153	13	80	1	1298	1406
06-00	4	1055	154	13	80	1	1307	1415
00-00	4	1084	156	13	81	1	1339	1449

Peaks	Time	Vehicles	PCU's
AM	0800	173	186.5
IP	1300	90	97.5
PM	1600	113	123.6





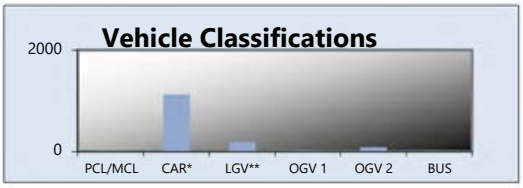
TRAFFINOMICS LIMITED

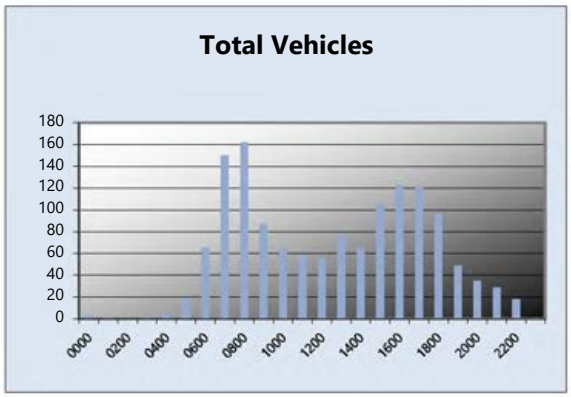
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Wednesday 22 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	3	0	0	0	0	3	3
0100	0	1	0	0	0	0	1	1
0200	0	0	0	0	0	0	0	0
0300	0	1	0	0	0	0	1	1
0400	0	3	2	0	0	0	5	5
0500	0	15	3	1	0	0	19	20
0600	0	47	12	2	4	0	65	71
0700	3	118	22	1	6	0	150	156
0800	0	131	22	1	8	0	162	173
0900	0	66	13	1	7	0	87	97
1000	1	47	8	0	7	1	64	73
1100	1	45	6	1	6	0	59	67
1200	0	44	8	0	4	0	56	61
1300	0	57	7	2	10	0	76	90
1400	1	43	13	1	7	0	65	74
1500	1	80	17	2	5	0	105	112
1600	0	100	14	2	7	0	123	133
1700	0	105	12	0	4	0	121	126
1800	0	85	12	0	0	0	97	97
1900	0	48	1	0	0	0	49	49
2000	0	33	2	0	0	0	35	35
2100	0	26	3	0	0	0	29	29
2200	0	18	0	0	0	0	18	18
2300	0	1	0	0	0	0	1	1
07-19	7	921	154	11	71	1	1165	1258
06-22	7	1075	172	13	75	1	1343	1442
06-00	7	1094	172	13	75	1	1362	1461
00-00	7	1117	177	14	75	1	1391	1491

Peaks	Time	Vehicles	PCU's
AM	0800	162	172.9
IP	1300	76	90
PM	1600	123	133.1





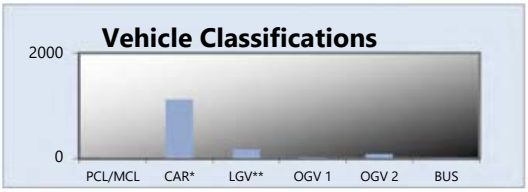
TRAFFINOMICS LIMITED

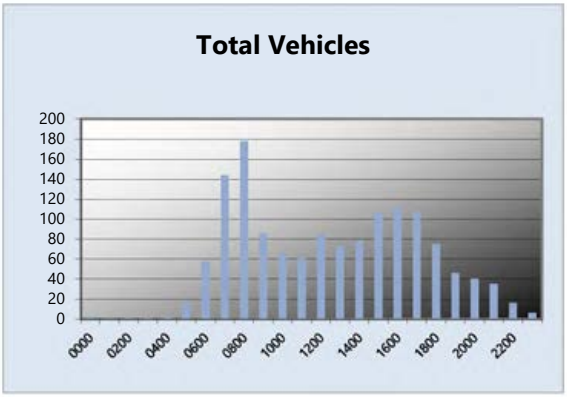
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Thursday 23 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	0	0	0	0	2	2
0100	0	1	0	0	0	0	1	1
0200	0	2	0	0	0	0	2	2
0300	0	1	1	0	0	0	2	2
0400	0	2	0	0	0	0	2	2
0500	0	14	2	0	0	0	16	16
0600	0	42	15	0	1	0	58	59
0700	1	108	26	3	5	1	144	152
0800	0	154	16	2	6	0	178	187
0900	0	67	8	3	8	0	86	98
1000	0	46	8	0	9	3	66	81
1100	0	46	4	1	9	0	60	72
1200	1	64	11	3	5	0	84	91
1300	1	48	9	2	13	0	73	90
1400	0	61	8	2	8	0	79	90
1500	0	83	12	2	9	0	106	119
1600	0	88	15	3	5	0	111	119
1700	0	92	15	0	1	0	108	109
1800	1	68	6	0	0	0	75	74
1900	0	39	5	1	1	0	46	48
2000	0	36	4	0	0	0	40	40
2100	0	34	1	0	0	0	35	35
2200	0	15	1	0	0	0	16	16
2300	0	6	0	0	0	0	6	6
07-19	4	925	138	21	78	4	1170	1283
06-22	4	1076	163	22	80	4	1349	1465
06-00	4	1097	164	22	80	4	1371	1487
00-00	4	1119	167	22	80	4	1396	1512

Peaks	Time	Vehicles	PCU's
AM	0800	178	186.8
IP	1200	84	91.2
PM	1600	111	119





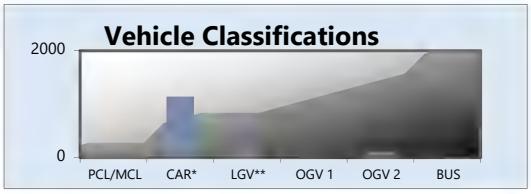
TRAFFINOMICS LIMITED

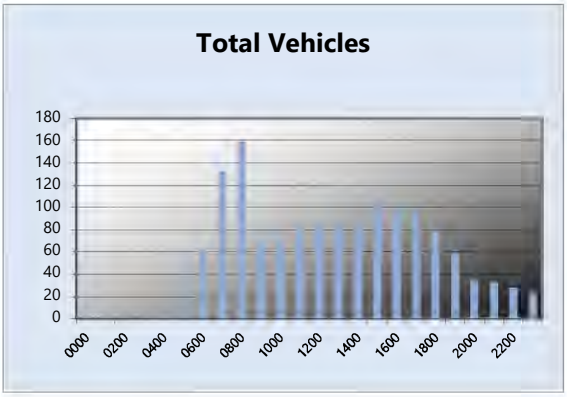
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Friday 24 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	0	0	0	0	2	2
0100	0	2	0	0	0	0	2	2
0200	0	3	0	0	0	0	3	3
0300	0	1	0	0	0	0	1	1
0400	0	1	1	0	1	0	3	4
0500	0	13	1	0	1	0	15	16
0600	0	42	15	1	2	0	60	63
0700	0	105	19	2	6	0	132	141
0800	1	136	17	0	5	0	159	165
0900	0	51	5	0	13	0	69	86
1000	0	48	11	1	10	2	72	88
1100	0	53	14	4	13	0	84	103
1200	0	70	8	1	4	1	84	91
1300	0	68	7	1	9	1	86	99
1400	0	63	10	2	9	0	84	97
1500	0	84	13	0	5	0	102	109
1600	0	79	13	0	2	0	94	97
1700	0	82	13	0	3	0	98	102
1800	0	69	8	0	1	0	78	79
1900	2	50	6	0	0	0	58	56
2000	0	33	2	0	0	0	35	35
2100	0	33	0	0	0	0	33	33
2200	0	28	0	0	0	0	28	28
2300	0	20	3	0	0	0	23	23
07-19	1	908	138	11	80	4	1142	1255
06-22	3	1066	161	12	82	4	1328	1442
06-00	3	1114	164	12	82	4	1379	1493
00-00	3	1136	166	12	84	4	1405	1522

Peaks	Time	Vehicles	PCU's
AM	0800	159	164.7
IP	1300	86	99.2
PM	1700	98	101.9





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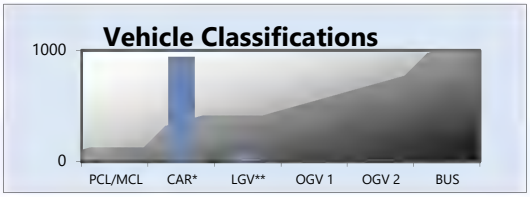
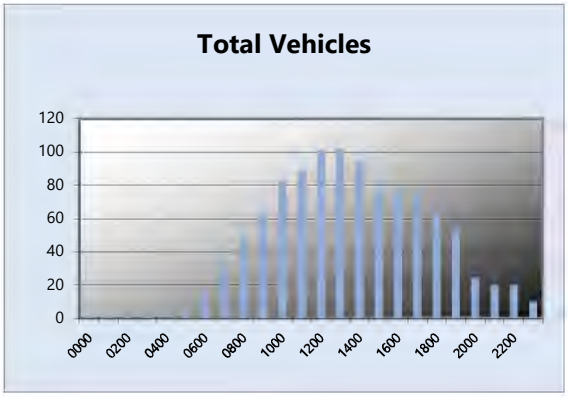
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Saturday 25 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	1	0	0	0	1	2	3
0100	0	1	1	0	0	0	2	2
0200	0	4	0	0	0	0	4	4
0300	0	1	1	0	0	0	2	2
0400	0	0	0	0	0	0	0	0
0500	0	3	1	0	0	0	4	4
0600	0	14	3	1	0	0	18	19
0700	0	21	9	0	3	0	33	37
0800	1	44	1	1	1	0	48	49
0900	0	52	8	0	2	0	62	65
1000	1	73	8	0	1	0	83	84
1100	1	71	13	1	3	0	89	93
1200	2	92	7	0	0	0	101	99
1300	0	90	10	0	2	0	102	105
1400	0	88	6	0	0	0	94	94
1500	0	70	5	0	0	0	75	75
1600	1	71	4	0	0	0	76	75
1700	0	66	7	1	0	0	74	75
1800	1	59	3	0	0	0	63	62
1900	0	52	1	0	0	0	53	53
2000	0	23	1	0	0	0	24	24
2100	0	20	0	0	0	0	20	20
2200	0	18	2	0	0	0	20	20
2300	0	10	0	0	0	0	10	10
07-19	7	797	81	3	12	0	900	912
06-22	7	906	86	4	12	0	1015	1027
06-00	7	934	88	4	12	0	1045	1057
00-00	7	944	91	4	12	1	1059	1072

Peaks	Time	Vehicles	PCU's
AM	0900	62	64.6
IP	1300	102	104.6
PM	1600	76	75.2





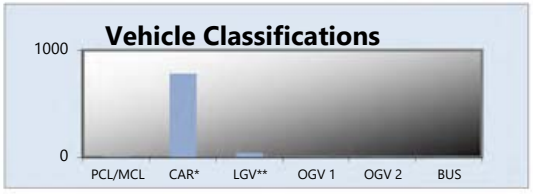
TRAFFINOMICS LIMITED

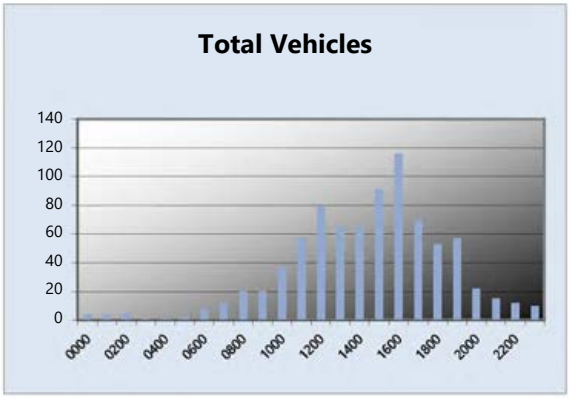
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Sunday 26 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	3	1	0	0	0	4	4
0100	0	4	0	0	0	0	4	4
0200	0	5	0	0	0	0	5	5
0300	0	1	0	0	0	0	1	1
0400	0	1	0	0	0	0	1	1
0500	0	1	1	0	0	0	2	2
0600	0	8	0	0	0	0	8	8
0700	0	12	0	0	0	0	12	12
0800	0	18	2	0	0	0	20	20
0900	1	17	1	0	1	0	20	21
1000	0	35	2	0	0	0	37	37
1100	1	52	5	0	0	0	58	57
1200	0	73	4	1	1	0	79	81
1300	0	63	0	1	0	1	65	67
1400	3	59	3	0	0	0	65	63
1500	1	88	2	0	0	0	91	90
1600	0	113	3	0	0	0	116	116
1700	0	66	4	0	0	0	70	70
1800	0	48	5	0	0	0	53	53
1900	0	53	3	0	1	0	57	58
2000	0	22	0	0	0	0	22	22
2100	0	14	1	0	0	0	15	15
2200	0	12	0	0	0	0	12	12
2300	0	10	0	0	0	0	10	10
07-19	6	644	31	2	2	1	686	686
06-22	6	741	35	2	3	1	788	789
06-00	6	763	35	2	3	1	810	811
00-00	6	778	37	2	3	1	827	828

Peaks	Time	Vehicles	PCU's
AM	0800	20	20.5
IP	1200	79	80.8
PM	1600	116	116





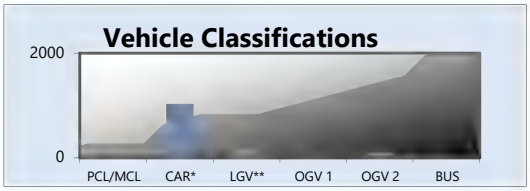
TRAFFINOMICS LIMITED

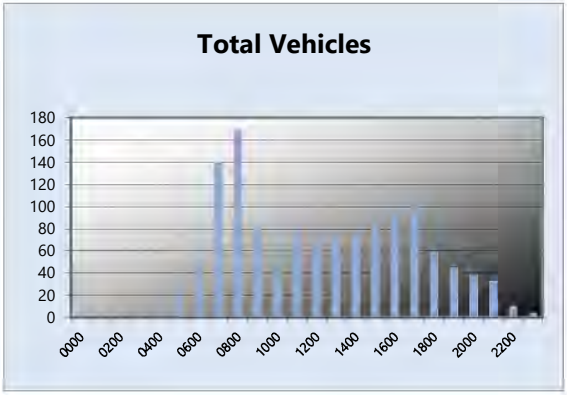
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Monday 27 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
EASTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	2	0	0	0	4	4
0100	0	2	0	0	0	0	2	2
0200	0	1	1	0	0	0	2	2
0300	0	0	0	0	1	0	1	2
0400	0	1	0	0	0	0	1	1
0500	0	16	2	0	0	0	18	18
0600	1	37	12	0	1	0	51	52
0700	1	108	23	2	5	1	140	148
0800	0	146	13	2	8	0	169	180
0900	0	55	18	0	8	0	81	91
1000	0	35	5	0	4	0	44	49
1100	0	53	14	1	10	1	79	94
1200	0	52	9	0	3	1	65	70
1300	0	56	6	3	8	0	73	85
1400	0	59	8	2	8	0	77	88
1500	0	61	15	1	9	0	86	98
1600	1	75	15	1	5	0	97	103
1700	0	94	13	0	5	0	112	119
1800	0	49	10	0	0	0	59	59
1900	0	41	4	0	0	0	45	45
2000	0	35	2	0	1	0	38	39
2100	0	31	2	0	0	0	33	33
2200	0	10	0	0	0	0	10	10
2300	0	4	0	0	0	0	4	4
07-19	2	843	149	12	73	3	1082	1184
06-22	3	987	169	12	75	3	1249	1353
06-00	3	1001	169	12	75	3	1263	1367
00-00	3	1023	174	12	76	3	1291	1396

Peaks	Time	Vehicles	PCU's
AM	0800	169	180.4
IP	1400	77	88.4
PM	1700	112	118.5





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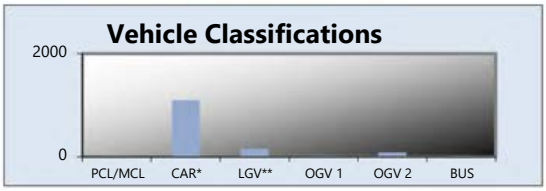
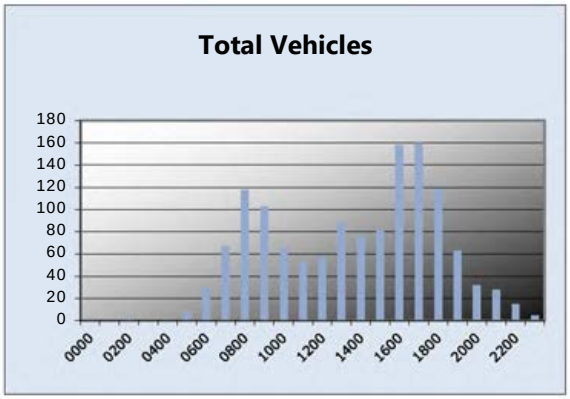
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Tuesday 21 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	0	0	0	0	2	2
0100	0	0	0	0	0	0	0	0
0200	0	2	0	0	0	0	2	2
0300	0	0	0	0	0	0	0	0
0400	0	1	0	0	0	0	1	1
0500	0	7	1	0	0	0	8	8
0600	0	22	3	0	5	0	30	37
0700	0	49	9	0	8	1	67	78
0800	0	102	7	0	9	0	118	130
0900	1	78	13	1	9	1	103	115
1000	0	45	11	0	9	0	65	77
1100	1	39	9	0	5	0	54	60
1200	0	45	6	0	6	0	57	65
1300	0	61	16	2	8	1	88	100
1400	0	64	5	2	5	0	76	84
1500	0	69	7	0	6	0	82	90
1600	1	133	15	2	7	0	158	167
1700	1	138	19	1	1	0	160	161
1800	0	109	10	0	0	0	119	119
1900	0	57	6	0	0	0	63	63
2000	0	30	2	0	0	0	32	32
2100	0	23	4	1	0	0	28	29
2200	0	13	2	0	0	0	15	15
2300	0	4	1	0	0	0	5	5
07-19	4	932	127	8	73	3	1147	1246
06-22	4	1064	142	9	78	3	1300	1406
06-00	4	1081	145	9	78	3	1320	1426
00-00	4	1093	146	9	78	3	1333	1439

Peaks	Time	Vehicles	PCU's
AM	0800	118	129.7
IP	1300	88	100.4
PM	1700	160	167.3





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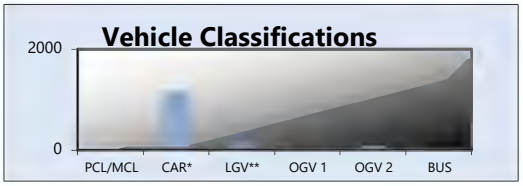
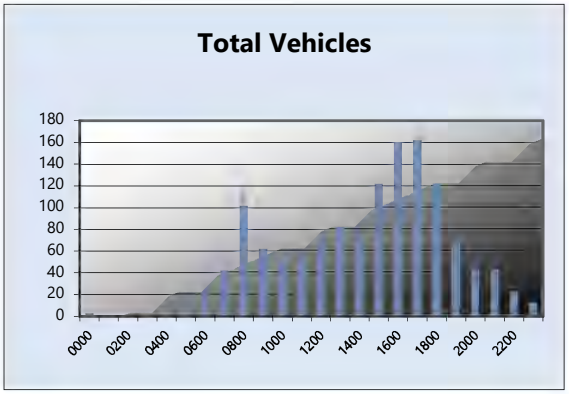
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Wednesday 22 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	3	0	0	0	0	3	3
0100	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0
0300	0	1	0	0	0	0	1	1
0400	0	0	1	0	0	0	1	1
0500	0	7	1	0	1	0	9	10
0600	1	19	6	1	3	0	30	34
0700	0	40	14	1	3	0	58	62
0800	2	98	11	0	3	1	115	118
0900	0	61	10	1	6	0	78	86
1000	1	38	4	0	8	0	51	61
1100	0	41	11	1	2	0	55	58
1200	0	55	13	2	7	0	77	87
1300	0	61	13	0	11	0	85	99
1400	0	61	11	1	6	0	79	87
1500	1	97	19	0	7	1	125	134
1600	0	134	18	3	5	0	160	168
1700	1	148	17	0	0	0	166	165
1800	0	108	13	0	1	0	122	123
1900	0	64	2	0	1	0	67	68
2000	0	40	3	0	0	0	43	43
2100	0	41	2	0	0	0	43	43
2200	0	20	2	0	0	0	22	22
2300	0	9	3	0	0	0	12	12
07-19	5	942	154	9	59	2	1171	1250
06-22	6	1106	167	10	63	2	1354	1438
06-00	6	1135	172	10	63	2	1388	1472
00-00	6	1146	174	10	64	2	1402	1487

Peaks	Time	Vehicles	PCU's
AM	0800	115	118.3
IP	1300	85	99.3
PM	1700	166	168





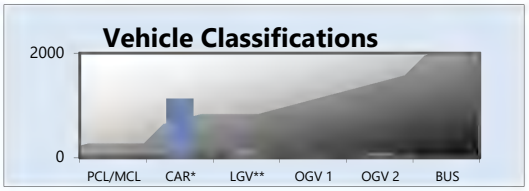
TRAFFINOMICS LIMITED

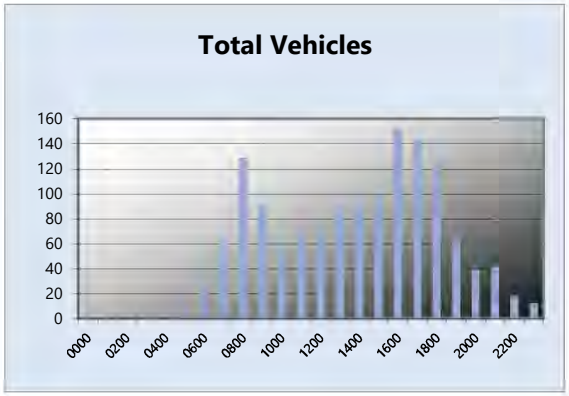
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Thursday 23 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	0	0	0	0	2	2
0100	0	1	1	0	0	0	2	2
0200	0	0	0	0	0	0	0	0
0300	0	1	0	0	1	0	2	3
0400	0	0	0	0	0	0	0	0
0500	0	7	0	0	0	0	7	7
0600	0	18	3	0	3	0	24	28
0700	0	47	12	1	3	0	63	67
0800	0	113	10	0	6	0	129	137
0900	0	69	11	0	11	0	91	105
1000	1	30	10	1	9	1	52	64
1100	0	58	9	0	3	0	70	74
1200	0	54	8	0	8	0	70	80
1300	0	65	10	3	12	0	90	107
1400	0	71	14	0	4	0	89	94
1500	1	81	13	0	4	0	99	103
1600	1	123	19	5	4	0	152	159
1700	1	122	19	0	1	0	143	144
1800	0	114	9	1	0	0	124	125
1900	0	57	5	0	0	0	62	62
2000	0	34	5	0	0	0	39	39
2100	0	36	5	0	0	0	41	41
2200	0	18	0	0	0	0	18	18
2300	0	8	4	0	0	0	12	12
07-19	4	947	144	11	65	1	1172	1260
06-22	4	1092	162	11	68	1	1338	1430
06-00	4	1118	166	11	68	1	1368	1460
00-00	4	1129	167	11	69	1	1381	1474

Peaks	Time	Vehicles	PCU's
AM	0800	129	136.8
IP	1300	90	107.1
PM	1600	152	158.9





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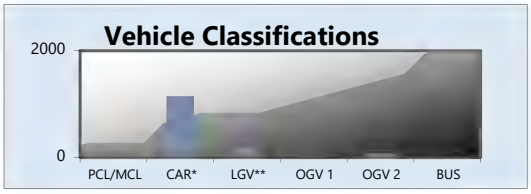
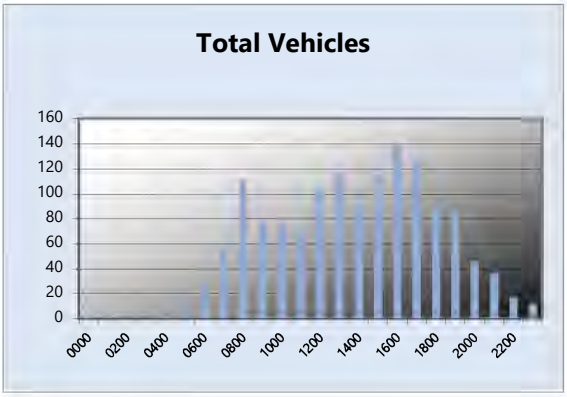
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Friday 24 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	2	0	0	0	0	2	2
0100	0	0	1	0	0	0	1	1
0200	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0
0400	0	2	0	0	0	0	2	2
0500	0	4	1	0	1	0	6	7
0600	1	18	5	1	2	0	27	29
0700	0	40	7	1	9	0	57	69
0800	0	97	12	0	2	0	111	114
0900	1	52	12	2	9	2	78	92
1000	0	58	8	0	9	1	76	89
1100	0	49	7	2	9	1	68	82
1200	0	83	9	1	10	0	103	117
1300	1	90	16	4	5	0	116	124
1400	0	75	10	1	5	0	91	98
1500	1	90	14	2	7	0	114	123
1600	0	119	15	1	5	0	140	147
1700	0	105	16	0	3	0	124	128
1800	0	85	5	0	0	0	90	90
1900	0	80	5	0	0	0	85	85
2000	0	42	4	0	0	0	46	46
2100	0	32	3	1	0	0	36	37
2200	0	15	2	0	0	0	17	17
2300	0	9	3	0	0	0	12	12
07-19	3	943	131	14	73	4	1168	1272
06-22	4	1115	148	16	75	4	1362	1468
06-00	4	1139	153	16	75	4	1391	1497
00-00	4	1147	155	16	76	4	1402	1510

Peaks	Time	Vehicles	PCU's
AM	0800	111	113.6
IP	1300	116	123.7
PM	1600	140	147





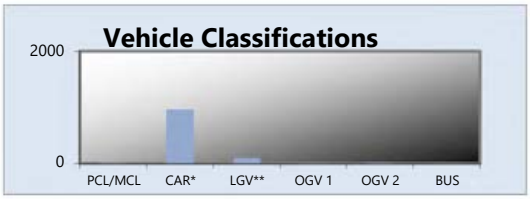
TRAFFINOMICS LIMITED

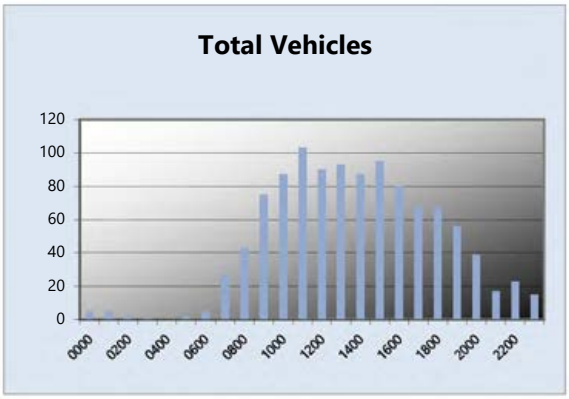
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Saturday 25 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	5	0	0	0	0	5	5
0100	0	5	0	0	0	0	5	5
0200	0	2	0	0	0	0	2	2
0300	0	1	0	0	0	0	1	1
0400	0	0	0	0	0	0	0	0
0500	0	2	0	0	0	0	2	2
0600	0	4	0	0	1	0	5	6
0700	1	17	7	1	0	1	27	28
0800	0	33	7	2	1	0	43	45
0900	1	63	7	0	4	0	75	79
1000	2	75	8	1	1	0	87	87
1100	2	91	7	1	2	0	103	105
1200	0	75	13	1	1	0	90	92
1300	2	85	6	0	0	0	93	91
1400	1	79	6	0	1	0	87	88
1500	4	77	14	0	0	0	95	92
1600	0	76	4	0	0	0	80	80
1700	0	63	4	1	0	0	68	69
1800	0	63	4	0	0	0	67	67
1900	0	52	3	0	1	0	56	57
2000	0	37	2	0	0	0	39	39
2100	0	17	0	0	0	0	17	17
2200	0	21	2	0	0	0	23	23
2300	0	14	1	0	0	0	15	15
07-19	13	797	87	7	10	1	915	922
06-22	13	907	92	7	12	1	1032	1042
06-00	13	942	95	7	12	1	1070	1080
00-00	13	957	95	7	12	1	1085	1095

Peaks	Time	Vehicles	PCU's
AM	0900	75	79.4
IP	1300	93	91.8
PM	1600	80	80





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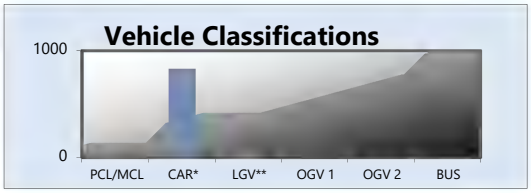
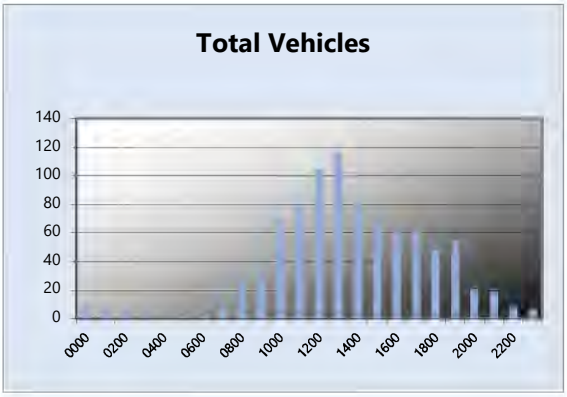
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Sunday 26 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	10	0	0	0	0	10	10
0100	0	6	0	0	0	0	6	6
0200	0	6	0	0	0	0	6	6
0300	0	3	0	0	0	0	3	3
0400	0	0	0	0	0	0	0	0
0500	0	2	0	0	0	0	2	2
0600	0	1	0	0	0	0	1	1
0700	0	7	0	0	0	0	7	7
0800	1	21	4	0	1	0	27	28
0900	1	26	2	0	1	0	30	31
1000	0	66	4	1	0	0	71	72
1100	0	70	8	0	0	0	78	78
1200	1	102	1	0	0	0	104	103
1300	1	112	3	0	0	0	116	115
1400	0	80	0	0	0	0	80	80
1500	0	60	7	0	0	0	67	67
1600	3	52	5	0	0	0	60	58
1700	0	56	5	0	0	0	61	61
1800	0	44	4	0	0	0	48	48
1900	0	54	1	0	0	0	55	55
2000	0	19	2	0	0	0	21	21
2100	0	19	0	0	0	0	19	19
2200	0	7	1	0	0	0	8	8
2300	0	7	0	0	0	0	7	7
07-19	7	696	43	1	2	0	749	747
06-22	7	789	46	1	2	0	845	843
06-00	7	803	47	1	2	0	860	858
00-00	7	830	47	1	2	0	887	885

Peaks	Time	Vehicles	PCU's
AM	0900	30	30.5
IP	1300	116	115.2
PM	1700	61	61





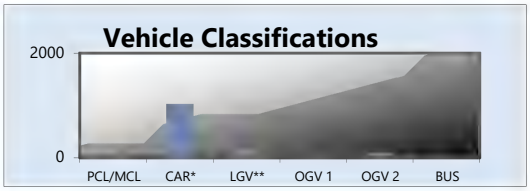
TRAFFINOMICS LIMITED

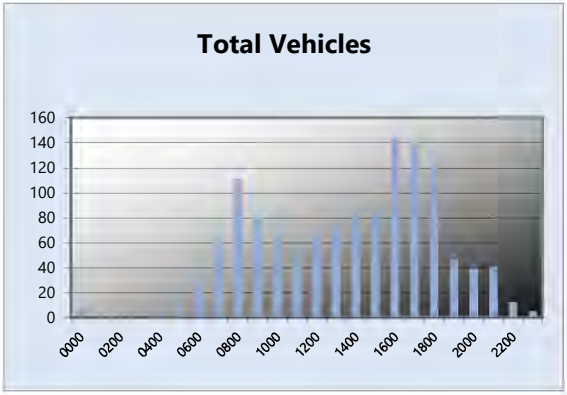
KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **Monday 27 February 2023**
AUTOMATIC TRAFFIC COUNT **TRA/23/037**

SITE 01
WESTBOUND

TIME	PCL/MCL	CAR*	LGV**	OGV 1	OGV 2	BUS	TOTAL	PCU
0000	0	6	0	0	0	0	6	6
0100	0	1	0	0	0	0	1	1
0200	0	1	0	0	0	0	1	1
0300	0	0	0	0	0	0	0	0
0400	0	0	1	0	0	0	1	1
0500	0	9	1	0	0	0	10	10
0600	0	20	6	0	2	0	28	31
0700	0	45	9	2	6	0	62	71
0800	0	97	10	0	3	1	111	116
0900	0	60	9	0	9	2	80	94
1000	0	52	7	1	6	0	66	74
1100	1	35	6	0	4	0	46	50
1200	0	50	10	0	5	1	66	74
1300	0	56	9	0	7	0	72	81
1400	0	65	8	1	6	0	80	88
1500	2	60	12	1	7	0	82	90
1600	2	120	14	2	6	0	144	151
1700	2	118	17	0	3	0	140	142
1800	0	108	12	2	1	0	123	125
1900	0	38	8	0	0	0	46	46
2000	0	35	4	0	0	0	39	39
2100	0	36	4	0	0	0	40	40
2200	0	11	0	0	1	0	12	13
2300	0	4	0	0	1	0	5	6
07-19	7	866	123	9	63	4	1072	1157
06-22	7	995	145	9	65	4	1225	1312
06-00	7	1010	145	9	67	4	1242	1332
00-00	7	1027	147	9	67	4	1261	1351

Peaks	Time	Vehicles	PCU's
AM	0800	111	115.9
IP	1400	80	88.3
PM	1600	144	151.2

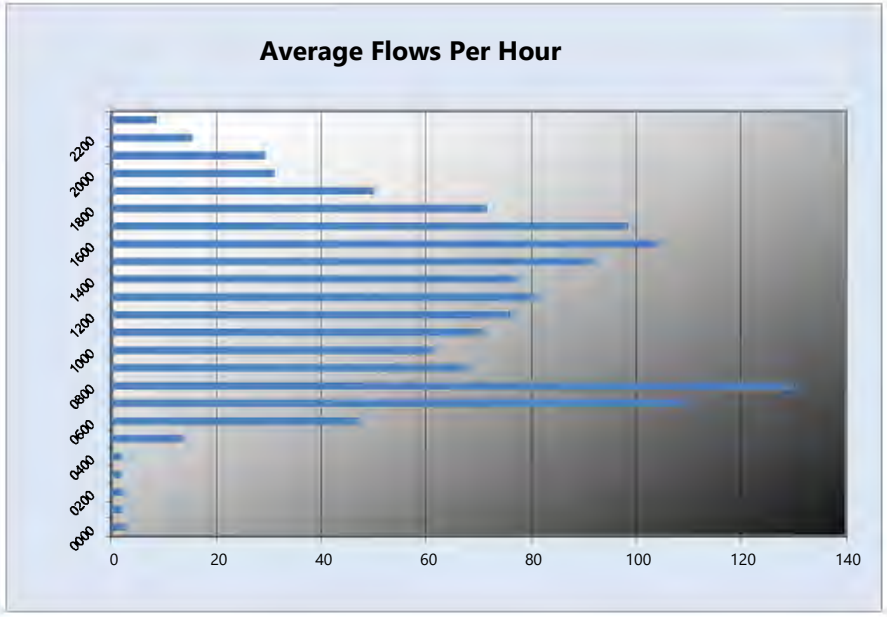


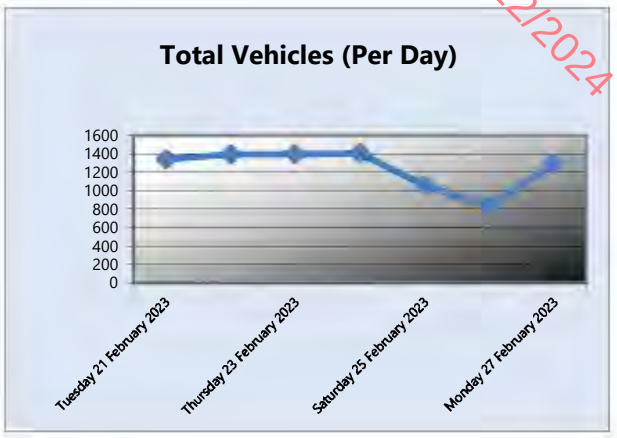


KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **SITE 01** **WEEK COMMENCING:** **Tuesday 21 February 2023**
AUTOMATIC TRAFFIC COUNT **EASTBOUND** **TRA/23/037**

TIME PERIOD	Tuesday 21 February 2023	Wednesday 22 February 2023	Thursday 23 February 2023	Friday 24 February 2023	Saturday 25 February 2023	Sunday 26 February 2023	Monday 27 February 2023	Average
0000	2	3	2	2	2	4	4	3
0100	2	1	1	2	2	4	2	2
0200	0	0	2	3	4	5	2	2
0300	4	1	2	1	2	1	1	2
0400	2	5	2	3	0	1	1	2
0500	22	19	16	15	4	2	18	14
0600	69	65	58	60	18	8	51	47
0700	153	150	144	132	33	12	140	109
0800	173	162	178	159	48	20	169	130
0900	69	87	86	69	62	20	81	68
1000	64	64	66	72	83	37	44	61
1100	64	59	60	84	89	58	79	70
1200	62	56	84	84	101	79	65	76
1300	90	76	73	86	102	65	73	81
1400	79	65	79	84	94	65	77	78
1500	76	105	106	102	75	91	86	92
1600	113	123	111	94	76	116	97	104
1700	106	121	108	98	74	70	112	98
1800	75	97	75	78	63	53	59	71
1900	41	49	46	58	53	57	45	50
2000	24	35	40	35	24	22	38	31
2100	40	29	35	33	20	15	33	29
2200	3	18	16	28	20	12	10	15
2300	6	1	6	23	10	10	4	9
07-19	1124	1165	1170	1142	900	686	1082	1038
06-22	1298	1343	1349	1328	1015	788	1249	1196
06-00	1307	1362	1371	1379	1045	810	1263	1220
00-00	1339	1391	1396	1405	1059	827	1291	1244

KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **SITE 01** **WEEK COMMENCING:** **Tuesday 21 February 2023**
AUTOMATIC TRAFFIC COUNT **EASTBOUND** **TRA/23/037**





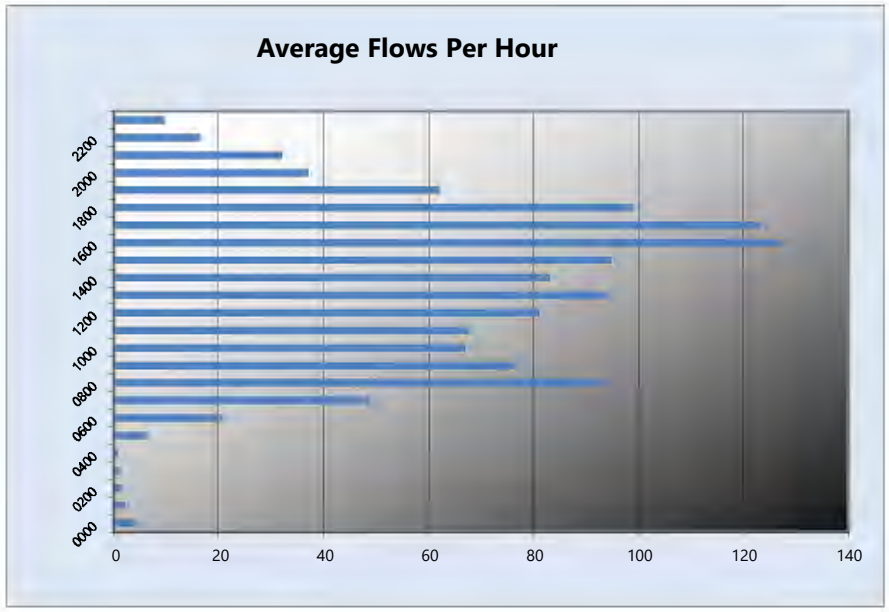
Peak Time & Volumetric Count Data

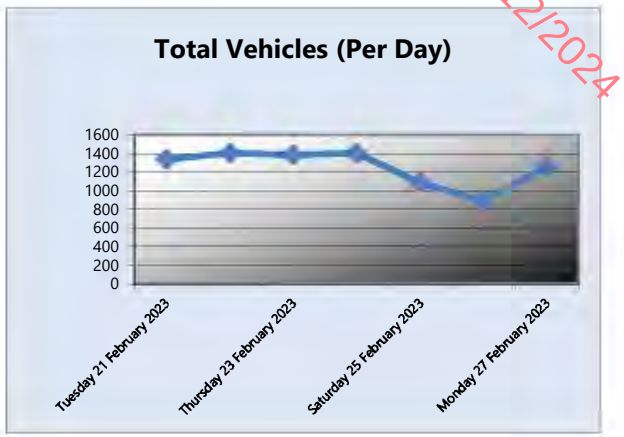
	Tuesday 21 February 2023	Wednesday 22 February 2023	Thursday 23 February 2023	Friday 24 February 2023	Saturday 25 February 2023	Sunday 26 February 2023	Monday 27 February 2023	Mode/ Average
AM								
Time	0800	0800	0800	0800	0900	0800	0800	0800
Vehicles	173	162	178	159	62	20	169	132
IP								
Time	1300	1300	1200	1300	1300	1200	1400	1300
Vehicles	90	76	84	86	102	79	77	85
PM								
Time	1600	1600	1600	1700	1600	1600	1700	1600
Vehicles	113	123	111	98	76	116	112	107

KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **SITE 01** **WEEK COMMENCING:** **Tuesday 21 February 2023**
AUTOMATIC TRAFFIC COUNT **WESTBOUND** **TRA/23/037**

TIME PERIOD	Tuesday 21 February 2023	Wednesday 22 February 2023	Thursday 23 February 2023	Friday 24 February 2023	Saturday 25 February 2023	Sunday 26 February 2023	Monday 27 February 2023	Average
0000	2	3	2	2	5	10	6	4
0100	0	0	2	1	5	6	1	2
0200	2	0	0	0	2	6	1	2
0300	0	1	2	0	1	3	0	1
0400	1	1	0	2	0	0	1	1
0500	8	9	7	6	2	2	10	6
0600	30	30	24	27	5	1	28	21
0700	67	58	63	57	27	7	62	49
0800	118	115	129	111	43	27	111	93
0900	103	78	91	78	75	30	80	76
1000	65	51	52	76	87	71	66	67
1100	54	55	70	68	103	78	46	68
1200	57	77	70	103	90	104	66	81
1300	88	85	90	116	93	116	72	94
1400	76	79	89	91	87	80	80	83
1500	82	125	99	114	95	67	82	95
1600	158	160	152	140	80	60	144	128
1700	160	166	143	124	68	61	140	123
1800	119	122	124	90	67	48	123	99
1900	63	67	62	85	56	55	46	62
2000	32	43	39	46	39	21	39	37
2100	28	43	41	36	17	19	40	32
2200	15	22	18	17	23	8	12	16
2300	5	12	12	12	15	7	5	10
07-19	1147	1171	1172	1168	915	749	1072	1056
06-22	1300	1354	1338	1362	1032	845	1225	1208
06-00	1320	1388	1368	1391	1070	860	1242	1234
00-00	1333	1402	1381	1402	1085	887	1261	1250

KILMEAGUE TRAFFIC COUNT/SPEED SURVEY **SITE 01** **WEEK COMMENCING:** **Tuesday 21 February 2023**
AUTOMATIC TRAFFIC COUNT **WESTBOUND** **TRA/23/037**





Peak Time & Volumetric Count Data

	Tuesday 21 February 2023	Wednesday 22 February 2023	Thursday 23 February 2023	Friday 24 February 2023	Saturday 25 February 2023	Sunday 26 February 2023	Monday 27 February 2023	Mode/ Average
AM								
Time	0800	0800	0800	0800	0900	0900	0800	0800
Vehicles	118	115	118	111	75	30	111	97
IP								
Time	1300	1300	1300	1300	1300	1300	1400	1300
Vehicles	88	85	90	116	93	116	80	95
PM								
Time	1700	1700	1600	1600	1600	1700	1600	1600
Vehicles	160	166	152	140	80	61	144	129

KILMEAGUE TRAFFIC COUNT/SPEED SURVEY
AUTOMATIC TRAFFIC COUNT

WEEK COMMENCING: Tuesday 21 February 2023
TRA/23/037

SITE 01
EASTBOUND

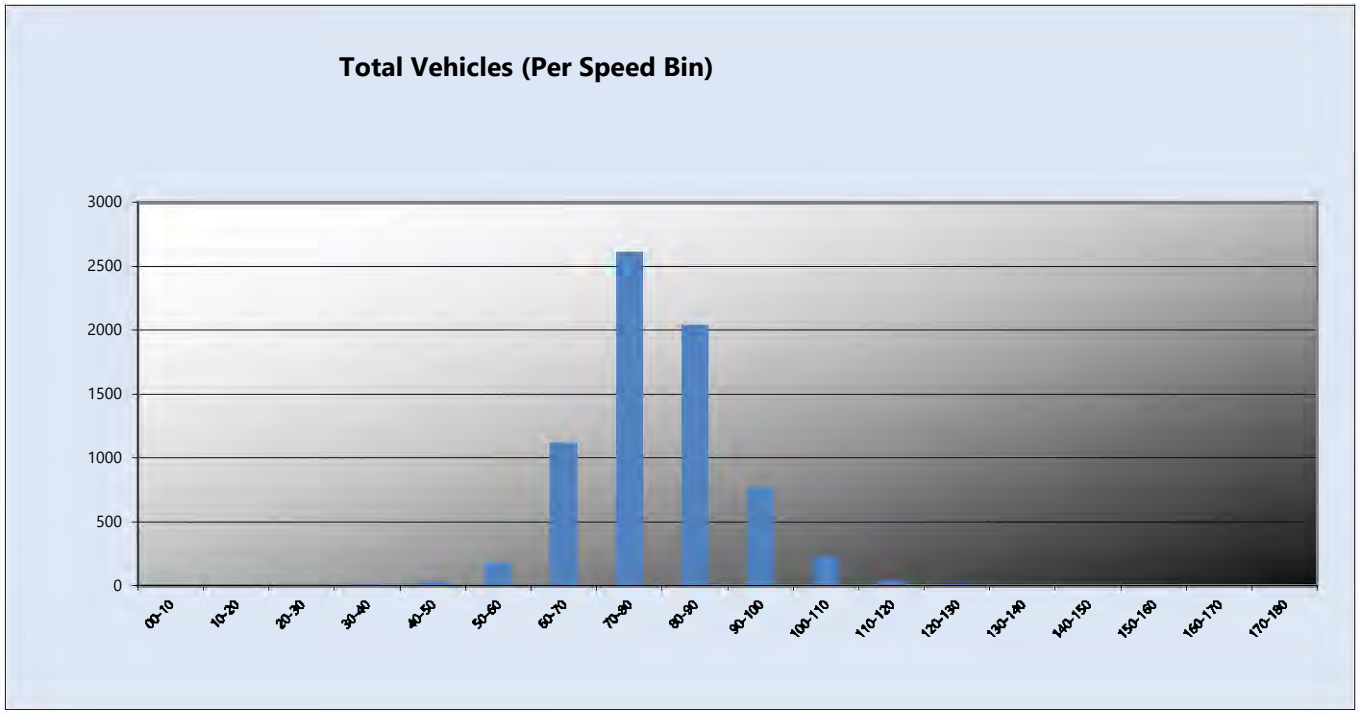
Profile:

Filter time: 00:00 21st February 2023 => 23:59 27th February 2023
Speed range: 0 - 200 km/h.
Separation: Greater than 4.00 seconds. - (Headway)
Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)

Vehicles = 7060
Maximum = 143.9 km/h, Minimum = 15.1 km/h, Mean = 79.0 km/h
85% Speed = 89.91 km/h, 95% Speed = 98.37 km/h, Median = 78.48 km/h
20 km/h Pace = 69 - 89, Number in Pace = 4707 (66.67%)
Variance = 128.87, Standard Deviation = 11.35 km/h

Speed Bins:

Speed	Bin	
KPH	No.	%
00-10	0	0.0
10-20	5	0.1
20-30	6	0.1
30-40	11	0.2
40-50	36	0.5
50-60	183	2.6
60-70	1117	15.8
70-80	2616	37.1
80-90	2039	28.9
90-100	770	10.9
100-110	225	3.2
110-120	38	0.5
120-130	10	0.1
130-140	3	0.0
140-150	1	0.0
150-160	0	0.0
160-170	0	0.0
170-180	0	0.0



Traffinomics Limited for
PMCE Consulting Engineers

KILMEAGUE TRAFFIC COUNT/SPEED SURVEY
AUTOMATIC TRAFFIC COUNT

WEEK COMMENCING: Tuesday 21 February 2023
TRA/23/037

SITE 01
WESTBOUND

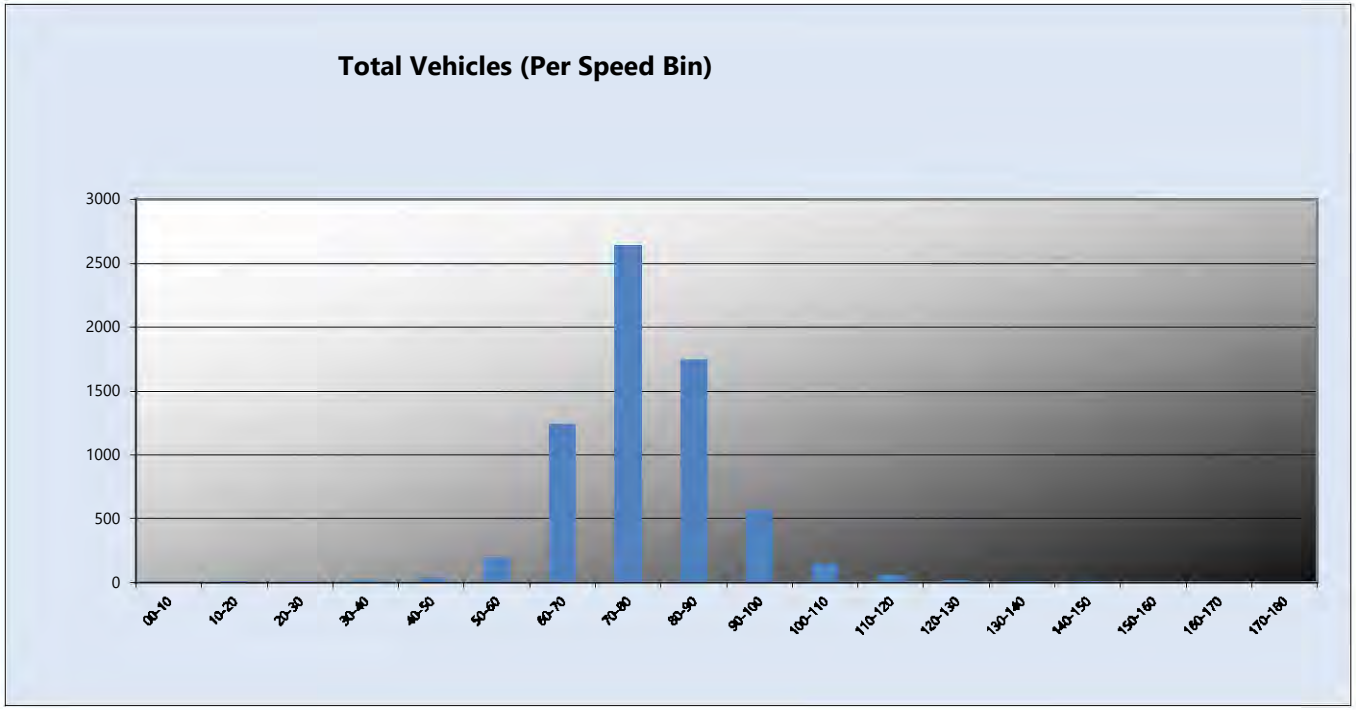
Profile:

Filter time: 00:00 21st February 2023 => 23:59 27th February 2023
Speed range: 0 - 200 km/h.
Separation: Greater than 4.00 seconds. - (Headway)
Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)

Vehicles = 6698
Maximum = 158.6 km/h, Minimum = 10.4 km/h, Mean = 77.8 km/h
85% Speed = 88.29 km/h, 95% Speed = 97.02 km/h, Median = 77.13 km/h
20 km/h Pace = 66 - 86, Number in Pace = 4579 (68.36%)
Variance = 141.63, Standard Deviation = 11.90 km/h

Speed Bins:

Speed	Bin	
KPH	No.	%
00-10	0	0.0
10-20	10	0.1
20-30	8	0.1
30-40	18	0.3
40-50	36	0.5
50-60	198	3.0
60-70	1237	18.5
70-80	2640	39.4
80-90	1746	26.1
90-100	572	8.5
100-110	145	2.2
110-120	58	0.9
120-130	18	0.3
130-140	5	0.1
140-150	5	0.1
150-160	2	0.0
160-170	0	0.0
170-180	0	0.0



Traffinomics Limited for
PMCE Consulting Engineers

CLASSIFICATION SCHEMES:

Scheme F Classification Scheme (Non-metric)

Scheme F is an attempt to implement the FWHA's visual classification scheme as an axle-based classification scheme. This is one of several interpretations.

Vehicle Class	Class	Vehicle Type	No. of Axles	Axle spacing in feet				
				Axle 1 to 2	Axle 2 to 3	Axle 3 to 4	Axle 4 to 5	Axle 5 to 6
PCL/MCL	1	motorcycle	2	<6.0				
CAR*	2	passenger car	2	6.0 - 10.0				
		car + 1 axle trailer	3	<10.0	10.0 - 18.0			
		car + 2 axle trailer	4	<10.0		<3.5		
LGV**	3	pickup	2	10.0 - 15.0				
		pickup + 1 axle trailer	3	10.0 - 15.0	10.0 - 18.0			
		pickup + 2 axle trailer	4	10.0 -15.0		<3.5		
		pickup + 3 axle trailer	5	9.9 - 15.0			<3.5	
BUS	4	bus	2	>20.0				
		bus	3	>19.0				
OGV 1	5	single unit truck - dual rear axle	2	14.9 - 20.0			<3.5	
	6	3 axle truck	3		<18.0			
OGV 2	7	4 axle truck	4					
	8	2S1	3		>18.0			
		2S2	4		>5.0	>3.5		
		3S1	4		<5.0	>10.0		
	9	3S2	5		<6.1		3.5 - 8.0	
		5 axle combination	5					
	10	6 axle combination	6			3.5 - 5.0		
		3S3	6					
	11	2S1-2	5		>6.0			
	12	3S1-2	6					>10.0
	13	truck	7 or more					

Car* Cars and LGV based cars

LGV** Light Goods Vehicles with the exception of LGV based on cars

TRAFFINOMICS LIMITED

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 01 DATE: 21st February 2023

LOCATION: R415 Allenwood Road/L7085 Naas Road/L7081 Prosperous Road DAY: Tuesday

	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	2	1	1	0	0	4	5	20	7	1	0	0	28	29	18	10	1	4	0	33	39
07:15	3	0	1	0	0	4	5	12	13	1	0	1	27	29	24	8	1	1	0	34	36
07:30	5	1	0	0	0	6	6	28	7	1	0	0	36	37	26	5	2	2	0	35	39
07:45	6	1	0	0	0	7	7	28	3	0	0	0	31	31	30	6	2	5	0	43	51
H/TOT	16	3	2	0	0	21	22	88	30	3	0	1	122	125	98	29	6	12	0	145	164
08:00	7	2	0	0	1	10	11	26	5	1	0	0	32	33	17	3	1	2	0	23	26
08:15	9	0	0	0	0	9	9	20	5	0	0	1	26	27	48	5	4	7	2	66	79
08:30	4	0	0	0	1	5	6	20	6	1	0	0	27	28	67	11	1	4	3	86	95
08:45	4	0	0	0	0	4	4	15	2	0	0	0	17	17	39	3	2	1	1	46	49
H/TOT	24	2	0	0	2	28	30	81	18	2	0	1	102	104	171	22	8	14	6	221	249
09:00	0	0	0	0	0	0	0	13	4	1	0	0	18	19	23	5	2	2	0	32	36
09:15	4	2	0	0	0	6	6	16	2	1	0	0	19	20	30	4	3	5	1	43	52
09:30	3	0	0	0	0	3	3	8	0	0	0	0	8	8	26	6	1	4	0	37	43
09:45	2	0	1	0	0	3	4	9	1	1	0	0	11	12	17	4	0	7	3	31	43
H/TOT	9	2	1	0	0	12	13	46	7	3	0	0	56	58	96	19	6	18	4	143	173
10:00	1	0	0	0	0	1	1	7	1	0	0	0	8	8	18	3	1	8	0	30	41
10:15	2	0	0	0	0	2	2	7	1	0	0	0	8	8	11	6	1	5	2	25	34
10:30	2	1	0	0	0	3	3	3	3	1	0	0	7	8	12	5	0	4	0	21	26
10:45	0	1	0	0	0	1	1	2	2	0	0	0	4	4	15	3	0	5	0	23	30
H/TOT	5	2	0	0	0	7	7	19	7	1	0	0	27	28	56	17	2	22	2	99	131
11:00	2	0	0	0	0	2	2	1	1	1	0	1	4	6	15	5	2	3	0	25	30
11:15	0	0	0	0	0	0	0	5	2	0	0	0	7	7	18	1	1	4	0	24	30
11:30	1	1	0	0	0	2	2	5	1	0	0	0	6	6	13	3	2	2	1	21	26
11:45	4	1	0	0	0	5	5	6	2	0	0	0	8	8	15	6	1	4	0	26	32
H/TOT	7	2	0	0	0	9	9	17	6	1	0	1	25	27	61	15	6	13	1	96	117
12:00	1	2	1	0	1	5	7	2	0	1	0	0	3	4	19	6	1	3	0	29	33
12:15	0	0	0	0	0	0	0	6	1	0	0	0	7	7	21	1	1	6	0	29	37
12:30	3	1	0	0	0	4	4	8	0	1	0	0	9	10	22	0	0	3	0	25	29
12:45	1	1	0	0	0	2	2	14	0	1	0	0	15	16	22	7	1	2	0	32	35
H/TOT	5	4	1	0	1	11	13	30	1	3	0	0	34	36	84	14	3	14	0	115	135
13:00	1	0	0	0	0	1	1	3	2	0	0	1	6	7	24	2	3	1	2	32	37

13:15	0	2	0	0	0	2	2	8	1	0	0	0	9	9	34	8	1	4	2	49	57
13:30	4	0	0	0	0	4	4	8	2	0	0	0	10	10	18	2	0	2	0	22	25
13:45	3	0	1	0	0	4	5	3	2	0	0	0	5	5	19	9	0	1	1	30	32
H/TOT	8	2	1	0	0	11	12	22	7	0	0	1	30	31	95	21	4	8	5	133	150
14:00	4	1	0	0	0	5	5	6	0	0	0	0	6	6	19	4	1	3	2	29	35
14:15	0	0	0	0	0	0	0	2	0	0	0	0	2	2	16	6	0	5	1	28	36
14:30	1	0	0	0	0	1	1	8	1	1	1	0	11	13	15	7	0	3	0	25	29
14:45	1	1	0	0	0	2	2	1	1	0	0	0	2	2	15	7	0	2	1	25	29
H/TOT	6	2	0	0	0	8	8	17	2	1	1	0	21	23	65	24	1	13	4	107	128
15:00	4	0	0	0	0	4	4	7	2	0	0	0	9	9	20	5	1	2	1	29	33
15:15	7	0	0	0	0	7	7	8	0	0	0	0	8	8	20	3	3	2	1	29	34
15:30	5	0	1	0	0	6	7	10	0	0	0	0	10	10	26	7	1	3	1	38	43
15:45	3	0	0	0	0	3	3	8	1	0	0	0	9	9	11	2	2	2	2	19	25
H/TOT	19	0	1	0	0	20	21	33	3	0	0	0	36	36	77	17	7	9	5	115	135
16:00	3	0	0	0	0	3	3	5	2	0	0	0	7	7	25	3	0	3	0	31	35
16:15	3	0	0	0	0	3	3	3	3	0	0	0	6	6	23	3	0	2	1	29	33
16:30	4	0	0	0	0	4	4	6	0	0	0	0	6	6	30	8	2	1	1	42	45
16:45	5	2	0	0	0	7	7	7	5	0	0	0	12	12	19	6	0	2	0	27	30
H/TOT	15	2	0	0	0	17	17	21	10	0	0	0	31	31	97	20	2	8	2	129	142
17:00	4	0	0	0	0	4	4	13	2	0	0	0	15	15	27	12	0	2	0	41	44
17:15	3	0	0	0	0	3	3	7	1	0	0	0	8	8	39	8	1	1	0	49	51
17:30	3	2	0	0	0	5	5	5	2	0	0	0	7	7	27	3	0	0	0	30	30
17:45	6	1	0	0	0	7	7	5	1	0	0	0	6	6	26	3	0	0	0	29	29
H/TOT	16	3	0	0	0	19	19	30	6	0	0	0	36	36	119	26	1	3	0	149	153
18:00	1	0	0	0	0	1	1	10	1	0	0	0	11	11	17	8	0	0	0	25	25
18:15	1	0	0	0	0	1	1	11	1	1	0	0	13	14	32	6	1	1	0	40	42
18:30	9	0	0	0	0	9	9	6	0	0	0	0	6	6	24	3	0	1	0	28	29
18:45	2	0	0	0	0	2	2	11	0	0	0	0	11	11	17	3	0	0	0	20	20
H/TOT	13	0	0	0	0	13	13	38	2	1	0	0	41	42	90	20	1	2	0	113	116

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 01 DATE: 21st February 2023

LOCATION: R415 Allenwood Road/L7085 Naas Road/L7081 Prosperous Road DAY: Tuesday

	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	9	2	0	5	0	16	23	16	7	0	0	0	23	23	3	0	1	0	0	4	5
07:15	16	10	0	10	0	36	49	16	6	1	1	0	24	26	6	0	0	0	1	7	8
07:30	8	4	1	3	3	19	26	24	8	0	2	1	35	39	5	1	0	0	0	6	6
07:45	19	1	2	7	1	30	41	24	7	3	8	0	42	54	4	2	0	0	0	6	6
H/TOT	52	17	3	25	4	101	139	80	28	4	11	1	124	141	18	3	1	0	1	23	25
08:00	19	3	2	3	2	29	36	27	5	0	3	0	35	39	0	0	0	0	0	0	0
08:15	18	6	1	5	1	31	39	20	5	1	3	0	29	33	2	0	0	0	0	2	2
08:30	23	3	2	4	0	32	38	30	5	0	5	0	40	47	6	1	0	0	0	7	7
08:45	38	8	2	6	1	55	65	22	2	3	4	0	31	38	5	0	0	0	0	5	5
H/TOT	98	20	7	18	4	147	178	99	17	4	15	0	135	157	13	1	0	0	0	14	14
09:00	21	4	2	6	0	33	42	11	1	0	2	0	14	17	4	0	0	0	0	4	4
09:15	14	4	1	7	0	26	36	16	3	1	1	0	21	23	3	0	0	0	0	3	3
09:30	7	4	1	2	2	16	21	7	1	1	2	0	11	14	1	0	0	0	0	1	1
09:45	10	2	2	5	1	20	29	9	2	0	1	0	12	13	0	1	0	0	0	1	1
H/TOT	52	14	6	20	3	95	127	43	7	2	6	0	58	67	8	1	0	0	0	9	9
10:00	12	5	1	3	0	21	25	8	3	4	1	0	16	19	2	0	0	0	0	2	2
10:15	9	3	0	2	1	15	19	12	2	2	5	0	21	29	2	0	0	0	0	2	2
10:30	11	5	0	2	1	19	23	7	0	0	6	0	13	21	4	1	0	0	0	5	5
10:45	12	5	1	2	1	21	25	4	3	0	4	0	11	16	1	0	0	0	0	1	1
H/TOT	44	18	2	9	3	76	92	31	8	6	16	0	61	85	9	1	0	0	0	10	10
11:00	7	1	2	3	0	13	18	4	4	0	3	0	11	15	2	0	0	0	0	2	2
11:15	12	4	2	3	3	24	32	14	2	1	1	0	18	20	2	2	1	0	0	5	6
11:30	22	4	1	1	0	28	30	10	2	1	1	0	14	16	2	1	0	0	0	3	3
11:45	16	3	1	0	0	20	21	12	0	1	1	0	14	16	1	0	0	0	0	1	1
H/TOT	57	12	6	7	3	85	100	40	8	3	6	0	57	66	7	3	1	0	0	11	12
12:00	22	2	3	2	0	29	33	8	1	2	2	0	13	17	1	1	1	0	0	3	4
12:15	25	3	1	7	1	37	48	22	2	0	7	0	31	40	4	0	0	0	0	4	4
12:30	14	4	0	1	1	20	22	7	0	2	2	0	11	15	1	0	0	0	0	1	1
12:45	15	5	1	0	0	21	22	6	2	0	0	0	8	8	1	0	0	0	0	1	1
H/TOT	76	14	5	10	2	107	125	43	5	4	11	0	63	79	7	1	1	0	0	9	10
13:00	12	5	3	6	0	26	35	13	2	0	1	0	16	17	1	1	0	0	0	2	2

13:15	18	10	0	3	1	32	37	11	3	1	5	0	20	27	1	0	0	0	0	1	1
13:30	39	5	2	4	1	51	58	12	2	0	2	0	16	19	2	0	0	0	0	2	2
13:45	27	7	0	0	3	37	40	12	4	1	2	0	19	22	3	0	0	0	0	3	3
H/TOT	96	27	5	13	5	146	170	48	11	2	10	0	71	85	7	1	0	0	0	8	8
14:00	22	6	0	1	3	32	36	12	4	0	4	0	20	25	1	1	0	0	0	2	2
14:15	18	3	0	2	0	23	26	13	2	0	2	1	18	22	0	0	0	0	0	0	0
14:30	18	5	5	3	1	32	39	17	0	1	1	0	19	21	3	0	0	0	0	3	3
14:45	26	6	1	0	0	33	34	11	2	3	1	0	17	20	3	0	0	0	0	3	3
H/TOT	84	20	6	6	4	120	135	53	8	4	8	1	74	87	7	1	0	0	0	8	8
15:00	18	11	1	4	0	34	40	2	0	0	4	0	6	11	1	0	0	0	0	1	1
15:15	16	2	1	2	1	22	26	12	2	0	2	0	16	19	1	2	0	0	0	3	3
15:30	27	4	2	3	2	38	45	9	1	1	4	0	15	21	1	0	0	0	0	1	1
15:45	30	6	1	0	1	38	40	14	1	0	2	0	17	20	2	0	0	0	0	2	2
H/TOT	91	23	5	9	4	132	150	37	4	1	12	0	54	70	5	2	0	0	0	7	7
16:00	33	6	2	3	1	45	51	12	1	4	2	0	19	24	0	0	0	0	0	0	0
16:15	31	7	2	4	1	45	52	15	2	1	3	0	21	25	2	0	1	0	0	3	4
16:30	24	13	5	3	1	46	53	31	7	3	5	2	48	58	2	1	0	0	0	3	3
16:45	44	6	1	2	0	53	56	16	4	0	0	0	20	20	1	0	0	0	0	1	1
H/TOT	132	32	10	12	3	189	213	74	14	8	10	2	108	127	5	1	1	0	0	7	8
17:00	38	8	1	0	0	47	48	22	4	0	1	0	27	28	2	0	0	0	0	2	2
17:15	45	10	0	0	0	55	55	19	0	0	0	0	19	19	0	0	0	0	0	0	0
17:30	48	7	0	1	0	56	57	18	2	0	1	0	21	22	0	0	0	0	0	0	0
17:45	42	5	0	0	0	47	47	14	4	0	0	0	18	18	5	1	0	0	0	6	6
H/TOT	173	30	1	1	0	205	207	73	10	0	2	0	85	88	7	1	0	0	0	8	8
18:00	33	5	1	0	0	39	40	12	3	1	0	0	16	17	0	0	0	0	0	0	0
18:15	33	2	0	0	0	35	35	16	3	1	0	0	20	21	2	0	0	0	0	2	2
18:30	23	3	0	0	0	26	26	16	1	0	0	0	17	17	0	3	0	0	0	3	3
18:45	33	4	0	0	0	37	37	11	0	0	0	0	11	11	1	0	0	0	0	1	1
H/TOT	122	14	1	0	0	137	138	55	7	2	0	0	64	65	3	3	0	0	0	6	6

TRAFFINOMICS LIMITED

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 01 DATE: 21st February 2023

LOCATION: R415 Allenwood Road/L7085 Naas Road/L7081 Prosperous Road DAY: Tuesday

	MOVEMENT 7							MOVEMENT 8							MOVEMENT 9						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	1	0	0	0	0	1	1	2	0	0	1	0	3	4	0	0	0	0	0	0	0
07:15	3	0	0	0	0	3	3	4	3	0	0	0	7	7	1	0	1	0	0	2	3
07:30	1	0	0	0	0	1	1	6	0	0	0	0	6	6	1	1	0	0	0	2	2
07:45	2	0	0	0	0	2	2	6	1	0	0	0	7	7	0	0	0	0	0	0	0
H/TOT	7	0	0	0	0	7	7	18	4	0	1	0	23	24	2	1	1	0	0	4	5
08:00	1	0	0	0	0	1	1	3	2	1	0	0	6	7	1	0	0	0	0	1	1
08:15	2	0	0	0	0	2	2	3	2	0	0	0	5	5	2	1	0	0	0	3	3
08:30	6	0	0	0	0	6	6	7	4	0	0	0	11	11	0	1	0	0	0	1	1
08:45	3	1	0	0	0	4	4	7	1	0	0	0	8	8	1	0	0	0	0	1	1
H/TOT	12	1	0	0	0	13	13	20	9	1	0	0	30	31	4	2	0	0	0	6	6
09:00	1	0	0	0	0	1	1	8	1	0	0	0	9	9	1	0	0	0	0	1	1
09:15	4	0	0	0	0	4	4	5	1	0	0	0	6	6	0	0	0	0	0	0	0
09:30	2	0	0	0	0	2	2	1	1	0	0	0	2	2	0	0	0	0	0	0	0
09:45	3	0	0	0	0	3	3	4	2	0	0	0	6	6	0	0	0	0	0	0	0
H/TOT	10	0	0	0	0	10	10	18	5	0	0	0	23	23	1	0	0	0	0	1	1
10:00	0	0	0	0	0	0	0	3	2	3	0	0	8	10	1	0	0	0	0	1	1
10:15	2	0	0	0	0	2	2	2	2	0	0	0	4	4	0	1	0	0	0	1	1
10:30	0	1	0	0	0	1	1	2	3	0	0	0	5	5	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0
H/TOT	2	1	0	0	0	3	3	10	7	3	0	0	20	22	1	1	0	0	0	2	2
11:00	3	2	0	0	0	5	5	3	2	0	1	0	6	7	0	0	0	0	0	0	0
11:15	5	0	0	0	0	5	5	4	1	0	0	0	5	5	0	0	0	0	0	0	0
11:30	1	0	0	0	0	1	1	3	0	0	0	0	3	3	0	0	0	0	0	0	0
11:45	4	0	0	0	0	4	4	4	0	0	0	0	4	4	4	0	0	0	0	4	4
H/TOT	13	2	0	0	0	15	15	14	3	0	1	0	18	19	4	0	0	0	0	4	4
12:00	2	1	1	0	0	4	5	10	2	0	0	0	12	12	1	0	0	0	0	1	1
12:15	2	1	0	0	0	3	3	1	1	0	0	0	2	2	1	0	0	0	0	1	1
12:30	3	0	0	0	0	3	3	3	1	0	0	0	4	4	1	0	0	0	0	1	1
12:45	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	1	0	0	1	2
H/TOT	7	2	1	0	0	10	11	21	4	0	0	0	25	25	3	0	1	0	0	4	5
13:00	2	1	0	0	0	3	3	6	1	0	0	0	7	7	1	0	0	0	0	1	1

13:15	5	0	0	0	0	5	5	11	1	0	0	0	12	12	4	0	0	0	0	4	4
13:30	1	0	0	0	0	1	1	8	1	0	0	0	9	9	0	1	0	0	0	1	1
13:45	4	0	0	0	0	4	4	3	3	1	0	0	7	8	1	0	0	0	0	1	1
H/TOT	12	1	0	0	0	13	13	28	6	1	0	0	35	36	6	1	0	0	0	7	7
14:00	4	0	0	0	0	4	4	8	0	1	0	0	9	10	0	0	0	0	0	0	0
14:15	1	0	0	0	0	1	1	8	1	0	0	0	9	9	0	0	0	0	0	0	0
14:30	3	0	0	0	0	3	3	5	0	0	0	0	5	5	4	1	1	0	0	6	7
14:45	2	0	0	0	0	2	2	3	1	1	0	0	5	6	0	0	0	0	0	0	0
H/TOT	10	0	0	0	0	10	10	24	2	2	0	0	28	29	4	1	1	0	0	6	7
15:00	3	1	0	0	0	4	4	9	3	0	0	0	12	12	1	0	0	0	0	1	1
15:15	3	0	0	0	0	3	3	6	0	1	0	0	7	8	1	0	0	0	0	1	1
15:30	3	1	0	0	0	4	4	10	3	1	0	0	14	15	0	0	0	0	0	0	0
15:45	4	2	1	0	0	7	8	11	4	1	0	0	16	17	1	1	0	0	0	2	2
H/TOT	13	4	1	0	0	18	19	36	10	3	0	0	49	51	3	1	0	0	0	4	4
16:00	5	1	0	0	0	6	6	18	1	1	0	0	20	21	0	0	0	0	0	0	0
16:15	1	1	0	0	0	2	2	16	4	1	0	1	22	24	0	0	0	0	0	0	0
16:30	10	2	2	0	1	15	17	19	2	1	1	0	23	25	0	0	0	0	0	0	0
16:45	4	2	0	0	0	6	6	19	4	0	0	0	23	23	1	0	0	0	0	1	1
H/TOT	20	6	2	0	1	29	31	72	11	3	1	1	88	92	1	0	0	0	0	1	1
17:00	4	0	0	0	0	4	4	22	6	0	0	0	28	28	1	0	0	0	0	1	1
17:15	9	1	0	0	0	10	10	20	5	0	0	0	25	25	1	0	0	0	0	1	1
17:30	10	2	0	0	0	12	12	26	6	0	0	0	32	32	1	0	1	0	0	2	3
17:45	3	0	0	0	0	3	3	27	6	0	0	0	33	33	0	0	0	0	0	0	0
H/TOT	26	3	0	0	0	29	29	95	23	0	0	0	118	118	3	0	1	0	0	4	5
18:00	8	1	0	0	0	9	9	17	3	0	0	0	20	20	1	0	0	0	0	1	1
18:15	13	2	0	0	0	15	15	20	2	0	0	0	22	22	0	0	0	0	0	0	0
18:30	3	0	0	0	0	3	3	20	5	0	0	0	25	25	1	0	0	0	0	1	1
18:45	2	3	0	0	0	5	5	10	2	0	0	0	12	12	1	0	0	0	0	1	1
H/TOT	26	6	0	0	0	32	32	67	12	0	0	0	79	79	3	0	0	0	0	3	3

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 01 DATE: 21st February 2023

LOCATION: R415 Allenwood Road/L7085 Naas Road/L7081 Prosperous Road DAY: Tuesday

	MOVEMENT 10							MOVEMENT 11							MOVEMENT 12						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	0	0	0	0	0	0	0	4	6	2	2	0	14	18	0	1	0	0	0	1	1
07:15	0	0	0	0	0	0	0	9	3	0	1	0	13	14	0	0	1	0	0	1	2
07:30	0	0	0	0	0	0	0	11	2	1	1	0	15	17	1	1	0	0	0	2	2
07:45	1	0	0	0	0	1	1	10	1	0	6	0	17	25	2	0	0	0	1	3	4
H/TOT	1	0	0	0	0	1	1	34	12	3	10	0	59	74	3	2	1	0	1	7	9
08:00	1	0	0	0	0	1	1	22	4	1	8	0	35	46	2	0	0	0	0	2	2
08:15	1	0	0	0	0	1	1	20	2	0	3	0	25	29	4	0	0	0	0	4	4
08:30	1	0	0	0	0	1	1	24	0	0	1	0	25	26	2	2	0	0	0	4	4
08:45	2	1	0	0	0	3	3	16	4	0	3	0	23	27	2	1	0	0	0	3	3
H/TOT	5	1	0	0	0	6	6	82	10	1	15	0	108	128	10	3	0	0	0	13	13
09:00	3	0	0	0	0	3	3	25	3	1	2	1	32	36	2	0	0	0	0	2	2
09:15	0	1	0	0	0	1	1	18	1	0	4	0	23	28	3	0	1	0	0	4	5
09:30	0	0	0	0	0	0	0	12	5	1	4	0	22	28	1	0	0	0	0	1	1
09:45	1	0	0	0	0	1	1	11	3	0	4	0	18	23	2	0	0	0	0	2	2
H/TOT	4	1	0	0	0	5	5	66	12	2	14	1	95	115	8	0	1	0	0	9	10
10:00	0	0	0	1	0	1	2	14	1	0	1	0	16	17	1	1	0	0	0	2	2
10:15	0	0	0	0	0	0	0	11	4	0	4	0	19	24	1	0	0	0	0	1	1
10:30	1	0	0	0	0	1	1	8	4	1	3	0	16	20	1	0	0	0	0	1	1
10:45	0	0	0	0	0	0	0	5	0	0	4	0	9	14	2	1	0	0	0	3	3
H/TOT	1	0	0	1	0	2	3	38	9	1	12	0	60	76	5	2	0	0	0	7	7
11:00	0	0	0	0	0	0	0	6	2	1	1	0	10	12	1	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	12	1	0	2	0	15	18	3	0	0	0	0	3	3
11:30	0	0	0	0	0	0	0	4	0	1	4	0	9	15	0	2	0	0	0	2	2
11:45	3	0	0	0	0	3	3	11	1	0	1	0	13	14	1	0	0	0	0	1	1
H/TOT	3	0	0	0	0	3	3	33	4	2	8	0	47	58	5	2	0	0	0	7	7
12:00	0	0	0	0	1	1	2	7	4	0	1	0	12	13	2	0	0	0	0	2	2
12:15	0	0	0	0	0	0	0	15	0	0	4	0	19	24	2	2	0	0	0	4	4
12:30	0	0	0	1	0	1	2	12	0	1	2	0	15	18	1	0	0	0	0	1	1
12:45	1	0	0	0	0	1	1	4	2	0	4	0	10	15	2	0	0	0	0	2	2
H/TOT	1	0	0	1	1	3	5	38	6	1	11	0	56	71	7	2	0	0	0	9	9
13:00	1	0	0	0	0	1	1	12	1	1	2	0	16	19	0	1	0	0	0	1	1

13:15	0	0	0	0	0	0	0	18	1	2	3	0	24	29	2	0	0	0	0	2	2
13:30	3	0	0	0	0	3	3	19	1	1	5	0	26	33	0	0	0	0	0	0	0
13:45	1	0	0	0	0	1	1	11	5	0	3	0	19	23	1	0	0	0	0	1	1
H/TOT	5	0	0	0	0	5	5	60	8	4	13	0	85	104	3	1	0	0	0	4	4
14:00	0	0	0	0	0	0	0	10	1	2	0	0	13	14	2	0	0	0	0	2	2
14:15	0	0	0	0	0	0	0	9	4	1	6	0	20	28	5	0	0	0	0	5	5
14:30	0	1	1	0	0	2	3	10	3	0	2	0	15	18	0	1	0	0	0	1	1
14:45	0	0	0	0	0	0	0	14	2	0	0	0	16	16	2	1	0	0	0	3	3
H/TOT	0	1	1	0	0	2	3	43	10	3	8	0	64	76	9	2	0	0	0	11	11
15:00	0	0	0	0	0	0	0	12	2	0	1	0	15	16	2	1	0	0	0	3	3
15:15	3	0	0	0	0	3	3	13	2	0	3	0	18	22	3	0	0	0	0	3	3
15:30	2	0	0	0	0	2	2	15	1	0	4	0	20	25	4	0	0	0	0	4	4
15:45	0	0	0	0	0	0	0	10	2	0	2	0	14	17	3	0	0	0	0	3	3
H/TOT	5	0	0	0	0	5	5	50	7	0	10	0	67	80	12	1	0	0	0	13	13
16:00	2	1	0	0	0	3	3	18	3	0	3	0	24	28	9	0	0	0	0	9	9
16:15	1	1	0	0	0	2	2	32	3	0	3	0	38	42	1	1	0	0	2	4	6
16:30	0	0	0	0	0	0	0	31	6	1	2	0	40	43	0	2	0	0	0	2	2
16:45	0	2	0	0	0	2	2	23	5	2	1	0	31	33	4	0	0	0	0	4	4
H/TOT	3	4	0	0	0	7	7	104	17	3	9	0	133	146	14	3	0	0	2	19	21
17:00	0	0	0	0	0	0	0	20	5	1	0	0	26	27	2	1	0	0	0	3	3
17:15	0	0	0	0	0	0	0	40	6	0	1	0	47	48	2	1	0	0	0	3	3
17:30	0	0	0	0	0	0	0	30	6	1	0	0	37	38	0	1	0	0	0	1	1
17:45	1	0	0	0	0	1	1	27	8	2	0	0	37	38	1	0	0	0	0	1	1
H/TOT	1	0	0	0	0	1	1	117	25	4	1	0	147	150	5	3	0	0	0	8	8
18:00	0	0	0	0	0	0	0	23	1	0	0	0	24	24	5	0	0	0	0	5	5
18:15	0	0	0	0	0	0	0	29	4	1	0	0	34	35	2	1	0	0	0	3	3
18:30	1	0	0	0	0	1	1	19	2	0	0	0	21	21	6	2	0	0	0	8	8
18:45	0	0	0	0	0	0	0	22	1	0	0	0	23	23	1	0	0	0	0	1	1
H/TOT	1	0	0	0	0	1	1	93	8	1	0	0	102	103	14	3	0	0	0	17	17

TRAFFINOMICS LIMITED

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 02 DATE: 21st February 2023

LOCATION: Robertstown Road/L7081 Prosperous Road/Naas Road DAY: Tuesday

	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	6	3	0	1	0	10	11	6	0	1	0	0	7	8	0	0	0	0	0	0	0
07:15	4	3	0	0	0	7	7	7	1	0	0	0	8	8	0	0	0	0	0	0	0
07:30	5	3	0	0	1	9	10	10	3	0	0	0	13	13	1	0	0	0	0	1	1
07:45	5	0	0	0	0	5	5	8	0	0	0	0	8	8	2	0	0	0	0	2	2
H/TOT	20	9	0	1	1	31	33	31	4	1	0	0	36	37	3	0	0	0	0	3	3
08:00	6	1	0	0	0	7	7	7	2	0	0	0	9	9	1	0	0	0	0	1	1
08:15	25	1	0	0	0	26	26	11	2	0	0	0	13	13	1	0	0	0	0	1	1
08:30	21	2	0	1	0	24	25	11	2	0	0	0	13	13	3	0	0	0	0	3	3
08:45	14	0	0	0	0	14	14	12	1	2	0	0	15	16	6	1	1	1	1	10	13
H/TOT	66	4	0	1	0	71	72	41	7	2	0	0	50	51	11	1	1	1	1	15	18
09:00	4	1	0	0	0	5	5	5	3	0	0	0	8	8	3	0	2	0	0	5	6
09:15	3	2	0	1	0	6	7	2	2	0	0	0	4	4	3	0	0	0	0	3	3
09:30	3	1	0	0	0	4	4	7	0	0	0	0	7	7	3	0	0	0	0	3	3
09:45	4	0	0	0	0	4	4	2	0	0	1	0	3	4	1	0	0	0	0	1	1
H/TOT	14	4	0	1	0	19	20	16	5	0	1	0	22	23	10	0	2	0	0	12	13
10:00	5	0	0	0	0	5	5	2	1	0	0	0	3	3	2	0	0	0	0	2	2
10:15	1	0	0	0	0	1	1	4	0	1	0	0	5	6	3	0	0	0	0	3	3
10:30	8	0	0	0	0	8	8	5	0	1	0	0	6	7	2	0	0	0	0	2	2
10:45	8	1	0	0	0	9	9	1	0	1	0	0	2	3	1	0	0	0	0	1	1
H/TOT	22	1	0	0	0	23	23	12	1	3	0	0	16	18	8	0	0	0	0	8	8
11:00	1	1	0	0	0	2	2	3	0	0	0	0	3	3	2	0	0	0	0	2	2
11:15	4	3	0	0	1	8	9	4	0	1	0	0	5	6	1	0	0	0	0	1	1
11:30	6	1	0	0	0	7	7	1	0	0	0	0	1	1	0	0	0	1	0	1	2
11:45	5	0	0	1	0	6	7	3	1	0	0	0	4	4	1	0	0	0	0	1	1
H/TOT	16	5	0	1	1	23	25	11	1	1	0	0	13	14	4	0	0	1	0	5	6
12:00	2	1	1	0	0	4	5	1	0	0	0	0	1	1	1	0	0	0	0	1	1
12:15	6	0	0	0	0	6	6	3	1	0	0	0	4	4	1	0	0	0	0	1	1
12:30	1	0	0	0	0	1	1	1	0	0	0	0	1	1	2	0	0	0	0	2	2
12:45	1	0	0	0	0	1	1	2	0	0	0	0	2	2	2	1	0	0	0	3	3
H/TOT	10	1	1	0	0	12	13	7	1	0	0	0	8	8	6	1	0	0	0	7	7
13:00	1	0	0	1	0	2	3	1	0	0	0	0	1	1	2	0	0	1	0	3	4

13:15	4	1	0	0	0	5	5	5	0	0	0	0	5	5	4	0	0	0	0	4	4
13:30	4	1	0	0	0	5	5	6	0	0	0	0	6	6	4	1	0	0	0	5	5
13:45	3	0	0	0	0	3	3	2	3	0	0	0	5	5	2	0	0	0	0	2	2
H/TOT	12	2	0	1	0	15	16	14	3	0	0	0	17	17	12	1	0	1	0	14	15
14:00	6	0	0	0	0	6	6	7	0	0	0	0	7	7	4	0	0	0	0	4	4
14:15	3	0	0	0	1	4	5	2	4	0	0	0	6	6	1	0	0	0	0	1	1
14:30	11	0	0	0	0	11	11	6	0	0	0	0	6	6	5	0	0	0	0	5	5
14:45	6	0	0	0	0	6	6	7	0	0	0	0	7	7	2	0	0	0	0	2	2
H/TOT	26	0	0	0	1	27	28	22	4	0	0	0	26	26	12	0	0	0	0	12	12
15:00	6	0	0	0	0	6	6	3	1	0	0	0	4	4	2	0	0	0	0	2	2
15:15	1	0	0	0	0	1	1	6	1	0	0	0	7	7	2	1	0	0	0	3	3
15:30	11	1	0	0	0	12	12	6	0	0	0	0	6	6	1	0	0	0	0	1	1
15:45	10	0	0	0	0	10	10	6	2	1	0	0	9	10	3	0	0	0	0	3	3
H/TOT	28	1	0	0	0	29	29	21	4	1	0	0	26	27	8	1	0	0	0	9	9
16:00	4	0	0	0	0	4	4	3	1	0	0	0	4	4	2	0	0	0	0	2	2
16:15	6	0	0	1	1	8	10	2	0	0	0	0	2	2	1	1	1	0	1	4	6
16:30	4	0	0	0	0	4	4	4	2	0	0	0	6	6	1	1	1	0	0	3	4
16:45	2	1	0	0	0	3	3	1	0	1	0	0	2	3	4	1	0	0	1	6	7
H/TOT	16	1	0	1	1	19	21	10	3	1	0	0	14	15	8	3	2	0	2	15	18
17:00	4	0	0	0	0	4	4	5	1	0	0	0	6	6	3	0	0	0	0	3	3
17:15	2	2	0	0	0	4	4	2	0	0	0	0	2	2	1	1	0	0	0	2	2
17:30	4	1	0	0	0	5	5	1	1	0	0	0	2	2	2	1	0	0	0	3	3
17:45	3	1	0	0	0	4	4	5	1	0	0	0	6	6	3	0	0	0	0	3	3
H/TOT	13	4	0	0	0	17	17	13	3	0	0	0	16	16	9	2	0	0	0	11	11
18:00	9	0	0	0	0	9	9	3	2	0	0	0	5	5	1	1	0	0	0	2	2
18:15	4	2	0	0	0	6	6	1	1	0	0	0	2	2	3	1	0	0	0	4	4
18:30	7	2	0	0	0	9	9	3	1	0	0	0	4	4	2	0	0	0	0	2	2
18:45	4	1	0	0	0	5	5	1	1	0	0	0	2	2	2	0	0	0	0	2	2
H/TOT	24	5	0	0	0	29	29	8	5	0	0	0	13	13	8	2	0	0	0	10	10

TRAFFINOMICS LIMITED

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 02 DATE: 21st February 2023

LOCATION: Robertstown Road/L7081 Prosperous Road/Naas Road DAY: Tuesday

	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	1	0	0	0	0	1	1	14	9	0	1	0	24	25	3	0	0	0	0	3	3
07:15	0	0	0	0	0	0	0	17	3	1	1	0	22	24	2	3	0	0	0	5	5
07:30	2	0	0	0	0	2	2	30	12	1	2	0	45	48	3	0	0	0	0	3	3
07:45	0	0	0	0	0	0	0	24	6	2	6	1	39	49	9	2	0	0	0	11	11
H/TOT	3	0	0	0	0	3	3	85	30	4	10	1	130	146	17	5	0	0	0	22	22
08:00	1	0	0	0	0	1	1	31	2	1	1	1	36	39	4	0	0	0	0	4	4
08:15	1	1	0	0	0	2	2	39	7	1	2	0	49	52	5	0	1	0	0	6	7
08:30	7	0	0	0	0	7	7	39	5	0	2	1	47	51	2	0	0	0	0	2	2
08:45	5	0	0	0	0	5	5	21	4	3	4	0	32	39	4	0	0	0	0	4	4
H/TOT	14	1	0	0	0	15	15	130	18	5	9	2	164	180	15	0	1	0	0	16	17
09:00	1	0	0	0	0	1	1	14	2	0	1	0	17	18	1	0	0	0	0	1	1
09:15	2	0	0	0	0	2	2	14	5	1	1	0	21	23	3	1	0	0	0	4	4
09:30	1	0	0	0	0	1	1	8	1	1	1	0	11	13	2	0	0	0	0	2	2
09:45	1	1	0	0	0	2	2	14	1	1	1	0	17	19	1	0	0	0	0	1	1
H/TOT	5	1	0	0	0	6	6	50	9	3	4	0	66	73	7	1	0	0	0	8	8
10:00	1	3	1	0	0	5	6	10	0	1	2	0	13	16	0	0	0	0	0	0	0
10:15	3	0	1	0	0	4	5	12	3	1	3	0	19	23	1	0	0	0	0	1	1
10:30	2	0	0	0	0	2	2	8	0	1	1	0	10	12	2	0	0	0	0	2	2
10:45	0	0	0	0	0	0	0	4	4	1	4	0	13	19	0	2	0	0	0	2	2
H/TOT	6	3	2	0	0	11	12	34	7	4	10	0	55	70	3	2	0	0	0	5	5
11:00	0	0	0	1	0	1	2	6	4	0	2	0	12	15	3	0	0	0	0	3	3
11:15	1	0	0	0	0	1	1	8	1	0	0	0	9	9	0	0	0	0	0	0	0
11:30	2	0	0	0	0	2	2	7	2	1	2	0	12	15	0	0	0	0	0	0	0
11:45	2	1	0	0	0	3	3	14	1	0	3	0	18	22	1	0	0	0	0	1	1
H/TOT	5	1	0	1	0	7	8	35	8	1	7	0	51	61	4	0	0	0	0	4	4
12:00	1	0	0	0	0	1	1	7	1	1	1	0	10	12	1	1	0	0	0	2	2
12:15	3	0	0	0	0	3	3	7	4	3	1	0	15	18	6	1	0	0	0	7	7
12:30	1	0	0	0	0	1	1	10	1	2	0	0	13	14	2	0	0	0	0	2	2
12:45	0	0	0	0	0	0	0	6	1	1	1	0	9	11	1	0	0	0	0	1	1
H/TOT	5	0	0	0	0	5	5	30	7	7	3	0	47	54	10	2	0	0	0	12	12
13:00	4	1	0	0	0	5	5	6	3	0	1	0	10	11	2	1	0	0	0	3	3

13:15	4	0	0	0	0	4	4	15	6	2	2	0	25	29	2	0	0	0	0	2	2
13:30	2	0	0	0	0	2	2	9	3	0	0	0	12	12	2	0	0	0	0	2	2
13:45	4	0	0	0	0	4	4	12	3	1	3	0	19	23	6	0	0	0	0	6	6
H/TOT	14	1	0	0	0	15	15	42	15	3	6	0	66	75	12	1	0	0	0	13	13
14:00	4	0	0	0	0	4	4	10	6	0	3	0	19	23	1	1	0	0	0	2	2
14:15	5	1	0	0	0	6	6	7	3	0	0	0	10	10	0	0	0	0	0	0	0
14:30	5	0	0	0	0	5	5	9	0	1	1	0	11	13	3	0	0	0	0	3	3
14:45	3	0	0	0	0	3	3	14	0	3	1	0	18	21	3	1	0	0	0	4	4
H/TOT	17	1	0	0	0	18	18	40	9	4	5	0	58	67	7	2	0	0	0	9	9
15:00	1	0	0	0	0	1	1	3	3	0	3	0	9	13	1	0	0	0	0	1	1
15:15	2	0	0	0	0	2	2	16	1	0	0	0	17	17	2	0	0	0	0	2	2
15:30	3	0	0	0	0	3	3	15	2	1	1	0	19	21	0	0	0	0	0	0	0
15:45	2	0	0	0	0	2	2	15	3	1	2	0	21	24	0	0	0	0	0	0	0
H/TOT	8	0	0	0	0	8	8	49	9	2	6	0	66	75	3	0	0	0	0	3	3
16:00	1	1	0	0	0	2	2	11	1	1	0	0	13	14	1	1	0	0	0	2	2
16:15	0	1	0	0	0	1	1	10	1	0	3	0	14	18	1	1	0	0	0	2	2
16:30	0	0	0	1	0	1	2	24	3	1	4	1	33	40	2	1	2	1	0	6	8
16:45	3	1	0	0	0	4	4	25	5	1	0	0	31	32	5	0	0	0	0	5	5
H/TOT	4	3	0	1	0	8	9	70	10	3	7	1	91	103	9	3	2	1	0	15	17
17:00	4	0	0	0	0	4	4	17	4	0	0	0	21	21	3	0	1	0	0	4	5
17:15	3	0	0	0	0	3	3	23	1	0	1	0	25	26	2	0	1	0	0	3	4
17:30	3	1	1	0	0	5	6	14	0	0	1	0	15	16	4	1	0	0	0	5	5
17:45	1	1	0	0	0	2	2	14	2	0	0	0	16	16	3	2	0	0	0	5	5
H/TOT	11	2	1	0	0	14	15	68	7	0	2	0	77	80	12	3	2	0	0	17	18
18:00	2	0	0	0	0	2	2	11	5	0	0	0	16	16	2	1	0	0	0	3	3
18:15	3	1	0	0	0	4	4	7	2	0	0	0	9	9	2	0	0	0	0	2	2
18:30	3	1	0	0	0	4	4	21	2	0	0	0	23	23	3	0	0	0	0	3	3
18:45	4	0	0	0	0	4	4	9	1	0	1	0	11	12	3	0	0	0	0	3	3
H/TOT	12	2	0	0	0	14	14	48	10	0	1	0	59	60	10	1	0	0	0	11	11

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 02 DATE: 21st February 2023

LOCATION: Robertstown Road/L7081 Prosperous Road/Naas Road DAY: Tuesday

	MOVEMENT 7							MOVEMENT 8							MOVEMENT 9						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	1	1	0	0	0	2	2	1	2	0	0	0	3	3	0	0	0	0	0	0	0
07:15	2	0	0	0	0	2	2	1	2	0	0	0	3	3	0	0	0	0	0	0	0
07:30	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	4	0	0	0	0	4	4	1	0	0	0	0	1	1	0	1	0	0	0	1	1
H/TOT	8	2	0	0	0	10	10	3	4	0	0	0	7	7	0	1	0	0	0	1	1
08:00	1	0	0	0	0	1	1	2	0	0	1	0	3	4	1	0	0	0	0	1	1
08:15	2	0	0	0	0	2	2	3	0	0	0	0	3	3	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0
08:45	2	1	0	0	0	3	3	6	0	0	1	0	7	8	1	0	0	0	0	1	1
H/TOT	5	1	0	0	0	6	6	17	0	0	2	0	19	22	2	0	0	0	0	2	2
09:00	4	0	0	0	0	4	4	2	0	0	0	0	2	2	0	0	0	0	0	0	0
09:15	1	1	0	0	0	2	2	2	0	0	0	0	2	2	0	0	0	0	0	0	0
09:30	1	0	0	0	0	1	1	4	2	0	0	0	6	6	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0
H/TOT	6	1	0	0	0	7	7	10	3	0	0	0	13	13	0	0	0	0	0	0	0
10:00	1	0	0	0	0	1	1	2	0	0	0	0	2	2	0	0	0	0	0	0	0
10:15	3	1	0	0	0	4	4	2	0	1	0	0	3	4	0	0	0	0	0	0	0
10:30	2	0	1	0	0	3	4	3	0	1	0	0	4	5	0	0	0	0	0	0	0
10:45	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	7	1	1	0	0	9	10	7	0	2	0	0	9	10	0	0	0	0	0	0	0
11:00	1	0	0	0	0	1	1	0	0	2	0	0	2	3	0	0	0	0	0	0	0
11:15	3	0	0	0	0	3	3	1	2	2	0	0	5	6	0	0	0	0	0	0	0
11:30	1	0	0	0	0	1	1	3	0	0	0	0	3	3	0	0	0	0	0	0	0
11:45	2	1	0	0	0	3	3	1	0	1	0	0	2	3	0	0	0	0	0	0	0
H/TOT	7	1	0	0	0	8	8	5	2	5	0	0	12	15	0	0	0	0	0	0	0
12:00	1	0	0	0	0	1	1	3	1	0	0	0	4	4	0	1	0	0	0	1	1
12:15	0	1	0	0	0	1	1	5	1	0	0	0	6	6	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	3	2	0	0	0	5	5	2	0	0	0	0	2	2	0	0	0	0	0	0	0
H/TOT	4	3	0	0	0	7	7	10	2	0	0	0	12	12	0	1	0	0	0	1	1
13:00	1	0	0	0	0	1	1	5	0	0	1	0	6	7	1	0	0	0	0	1	1

13:15	2	0	0	0	0	2	2	4	1	0	0	0	5	5	0	0	0	0	0	0	0
13:30	4	0	0	0	0	4	4	6	0	0	0	0	6	6	0	0	0	0	0	0	0
13:45	0	1	0	0	0	1	1	2	1	0	0	0	3	3	1	0	0	0	0	1	1
H/TOT	7	1	0	0	0	8	8	17	2	0	1	0	20	21	2	0	0	0	0	2	2
14:00	3	0	0	0	0	3	3	3	0	0	0	0	3	3	0	0	0	0	0	0	0
14:15	3	1	0	0	0	4	4	6	2	0	0	0	8	8	1	0	0	0	0	1	1
14:30	1	2	0	0	0	3	3	8	0	0	0	0	8	8	0	0	0	0	0	0	0
14:45	1	1	0	0	0	2	2	5	0	0	0	0	5	5	2	0	0	0	0	2	2
H/TOT	8	4	0	0	0	12	12	22	2	0	0	0	24	24	3	0	0	0	0	3	3
15:00	1	1	0	0	0	2	2	6	2	0	0	0	8	8	0	0	0	0	0	0	0
15:15	4	0	0	0	0	4	4	4	0	0	0	0	4	4	0	0	0	0	0	0	0
15:30	3	0	0	0	0	3	3	3	2	0	0	0	5	5	0	0	0	0	0	0	0
15:45	2	0	0	0	0	2	2	2	1	0	0	0	3	3	2	0	0	0	0	2	2
H/TOT	10	1	0	0	0	11	11	15	5	0	0	0	20	20	2	0	0	0	0	2	2
16:00	3	0	0	0	0	3	3	6	4	1	0	0	11	12	0	0	0	0	0	0	0
16:15	1	1	0	1	0	3	4	8	5	0	0	0	13	13	0	0	0	0	0	0	0
16:30	3	2	0	0	0	5	5	15	1	0	0	0	16	16	1	0	0	0	0	1	1
16:45	5	2	0	0	0	7	7	8	0	0	0	0	8	8	0	0	0	0	0	0	0
H/TOT	12	5	0	1	0	18	19	37	10	1	0	0	48	49	1	0	0	0	0	1	1
17:00	4	1	0	0	0	5	5	14	4	0	0	0	18	18	0	0	0	0	0	0	0
17:15	1	1	0	0	0	2	2	14	2	0	0	0	16	16	0	0	0	0	0	0	0
17:30	1	2	1	0	0	4	5	20	2	0	0	0	22	22	1	0	1	0	0	2	3
17:45	11	1	0	0	0	12	12	12	5	0	0	0	17	17	1	0	0	0	0	1	1
H/TOT	17	5	1	0	0	23	24	60	13	0	0	0	73	73	2	0	1	0	0	3	4
18:00	5	0	0	0	0	5	5	8	3	0	0	0	11	11	1	0	0	0	0	1	1
18:15	1	0	0	0	0	1	1	13	0	0	0	0	13	13	1	0	0	0	0	1	1
18:30	4	0	0	0	0	4	4	7	1	0	0	0	8	8	0	0	0	0	0	0	0
18:45	5	1	1	0	0	7	8	5	0	0	0	0	5	5	0	0	0	0	0	0	0
H/TOT	15	1	1	0	0	17	18	33	4	0	0	0	37	37	2	0	0	0	0	2	2

KILMEAGUE TRAFFIC COUNTS **FEBRUARY 2023**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/23/037**

SITE: 02 DATE: 21st February 2023

LOCATION: Robertstown Road/L7081 Prosperous Road/Naas Road DAY: Tuesday

	MOVEMENT 10							MOVEMENT 11							MOVEMENT 12						
TIME	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	0	0	0	0	0	0	0	5	3	1	3	0	12	16	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	7	3	0	1	0	11	12	0	0	0	0	1	1	2
07:30	0	0	0	0	0	0	0	8	2	1	3	0	14	18	2	1	0	1	0	4	5
07:45	2	0	0	0	0	2	2	8	2	0	2	1	13	17	0	1	0	0	0	1	1
H/TOT	2	0	0	0	0	2	2	28	10	2	9	1	50	64	2	2	0	1	1	6	8
08:00	1	0	0	0	0	1	1	23	3	1	6	0	33	41	1	2	0	0	0	3	3
08:15	0	0	0	0	0	0	0	18	3	0	1	0	22	23	10	2	0	0	0	12	12
08:30	1	0	0	0	0	1	1	19	2	0	1	0	22	23	17	1	0	1	0	19	20
08:45	2	1	0	0	0	3	3	18	4	0	0	0	22	22	14	0	0	0	0	14	14
H/TOT	4	1	0	0	0	5	5	78	12	1	8	0	99	110	42	5	0	1	0	48	49
09:00	0	0	0	0	0	0	0	17	2	0	1	0	20	21	4	0	0	0	0	4	4
09:15	0	0	0	0	0	0	0	18	3	1	2	0	24	27	4	0	0	0	0	4	4
09:30	0	0	0	0	0	0	0	4	4	1	4	0	13	19	4	0	0	0	0	4	4
09:45	1	1	0	0	0	2	2	8	3	0	0	0	11	11	2	1	0	0	0	3	3
H/TOT	1	1	0	0	0	2	2	47	12	2	7	0	68	78	14	1	0	0	0	15	15
10:00	0	0	0	0	0	0	0	9	1	0	3	0	13	17	2	0	0	0	0	2	2
10:15	0	0	0	0	0	0	0	7	4	0	4	0	15	20	0	0	1	0	0	1	2
10:30	0	0	0	0	0	0	0	9	2	2	0	0	13	14	3	0	0	0	0	3	3
10:45	0	0	0	0	0	0	0	4	2	0	2	0	8	11	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	29	9	2	9	0	49	62	7	0	1	0	0	8	9
11:00	0	0	0	0	0	0	0	5	1	1	1	0	8	10	1	1	0	2	0	4	7
11:15	1	1	0	0	0	2	2	7	2	0	0	0	9	9	3	2	0	0	1	6	7
11:30	0	0	1	0	0	1	2	6	4	0	4	0	14	19	4	0	0	1	0	5	6
11:45	0	0	0	0	0	0	0	9	1	0	0	0	10	10	3	0	0	0	0	3	3
H/TOT	1	1	1	0	0	3	4	27	8	1	5	0	41	48	11	3	0	3	1	18	23
12:00	0	0	0	0	0	0	0	11	3	0	1	0	15	16	6	1	1	0	0	8	9
12:15	0	1	0	0	0	1	1	12	0	0	1	0	13	14	4	1	0	0	0	5	5
12:30	0	0	0	0	0	0	0	7	0	0	3	0	10	14	4	0	0	0	0	4	4
12:45	0	0	0	0	0	0	0	4	2	0	2	0	8	11	3	0	0	0	0	3	3
H/TOT	0	1	0	0	0	1	1	34	5	0	7	0	46	55	17	2	1	0	0	20	21
13:00	1	0	0	0	0	1	1	8	3	1	3	0	15	19	7	0	0	0	0	7	7

13:15	0	0	0	0	0	0	0	13	3	2	0	0	18	19	8	1	0	0	0	9	9
13:30	0	0	0	0	0	0	0	9	3	0	2	0	14	17	0	2	0	0	0	2	2
13:45	0	0	0	0	0	0	0	11	4	2	2	0	19	23	8	0	0	0	0	8	8
H/TOT	1	0	0	0	0	1	1	41	13	5	7	0	66	78	23	3	0	0	0	26	26
14:00	0	0	0	0	0	0	0	6	1	1	1	0	9	11	2	0	0	0	0	2	2
14:15	0	0	0	0	0	0	0	10	5	2	3	0	20	25	4	0	0	0	1	5	6
14:30	1	0	0	0	0	1	1	5	3	0	0	0	8	8	6	0	0	0	0	6	6
14:45	0	0	0	0	0	0	0	15	3	0	0	0	18	18	5	0	0	0	0	5	5
H/TOT	1	0	0	0	0	1	1	36	12	3	4	0	55	62	17	0	0	0	1	18	19
15:00	0	0	0	0	0	0	0	11	2	0	1	0	14	15	2	0	0	0	0	2	2
15:15	0	0	0	0	0	0	0	12	1	0	2	0	15	18	4	0	0	0	0	4	4
15:30	0	0	0	0	0	0	0	17	0	1	2	0	20	23	1	1	0	2	0	4	7
15:45	0	0	0	0	0	0	0	12	2	1	2	0	17	20	4	0	1	0	0	5	6
H/TOT	0	0	0	0	0	0	0	52	5	2	7	0	66	76	11	1	1	2	0	15	18
16:00	1	0	0	0	0	1	1	27	4	0	2	1	34	38	18	2	0	0	0	20	20
16:15	0	0	0	0	0	0	0	21	6	0	1	0	28	29	9	2	0	0	2	13	15
16:30	1	0	0	0	0	1	1	29	5	0	1	0	35	36	1	2	0	0	1	4	5
16:45	0	0	0	0	0	0	0	16	5	1	0	0	22	23	9	1	0	0	0	10	10
H/TOT	2	0	0	0	0	2	2	93	20	1	4	1	119	126	37	7	0	0	3	47	50
17:00	2	0	0	0	0	2	2	29	6	0	0	0	35	35	13	2	0	1	0	16	17
17:15	0	0	0	0	0	0	0	34	4	0	1	0	39	40	4	1	0	0	0	5	5
17:30	1	0	0	0	0	1	1	34	5	2	0	0	41	42	9	1	0	0	0	10	10
17:45	0	0	0	0	0	0	0	18	4	0	0	0	22	22	9	2	1	0	0	12	13
H/TOT	3	0	0	0	0	3	3	115	19	2	1	0	137	139	35	6	1	1	0	43	45
18:00	0	0	0	0	0	0	0	28	2	0	0	0	30	30	10	1	1	0	0	12	13
18:15	1	0	0	0	0	1	1	30	3	0	0	0	33	33	6	0	0	0	0	6	6
18:30	0	0	0	0	0	0	0	28	0	1	0	0	29	30	5	0	0	0	0	5	5
18:45	0	0	0	0	0	0	0	14	1	0	0	0	15	15	9	0	0	0	0	9	9
H/TOT	1	0	0	0	0	1	1	100	6	1	0	0	107	108	30	1	1	0	0	32	33

Appendix C – AADTs for each Junction Analysed

TABLE 6-1: AADTS AT JUNCTION 1 – (R415 JUNCTION)

Hour Ending	R415 (West)	R415 (North)	L7081	L7085
08:00	459	419	216	180
09:00	638	541	296	171
10:00	410	337	179	104
11:00	309	237	140	64
12:00	311	240	127	76
13:00	360	301	146	85
14:00	456	358	182	98
15:00	383	296	166	75
16:00	393	365	163	119
17:00	595	473	285	163
18:00	623	535	264	196
19:00	454	400	200	162
Period Total	5,391	4,502	2,364	1,493
Period Total HGVs	732	485	310	55
% HGVs	14%	11%	13%	4%
Total AADT	6,950	5,804	3,048	1,925

TABLE 6-2: AADTS AT JUNCTION 2 – (ROBERTSTOWN JUNCTION)

Hour Ending	L7081 (West)	Robertstown Local Road (North)	L7081 (East)	Robertstown Local Road (South)
08:00	218	86	220	78
09:00	315	218	389	98
10:00	167	87	170	52
11:00	137	75	135	39
12:00	116	78	136	40
13:00	124	64	127	41
14:00	182	107	176	61
15:00	164	125	162	75
16:00	163	107	178	62
17:00	266	151	279	98
18:00	279	174	280	135
19:00	218	135	230	81
Period Total	2,349	1,407	2,482	860
Period Total HGVs	228	67	234	33
% HGVs	10%	5%	9%	4%
Total AADT	3,028	1,814	3,200	1,109

TABLE 6-3: AADTS AT JUNCTION 3 – (SITE ACCESS)

Hour Ending	L7081
08:00	207
09:00	307
10:00	177
11:00	118
12:00	130
13:00	154
14:00	163
15:00	168
16:00	205
17:00	263
18:00	251
19:00	199
Period Total	2,342
Period Total HGVs	180
% HGVs	8%
Total AADT	3,019

Appendix D – Junctions 9 Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896

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

Filename: Junction 3 - Site Access.j9
Path: W:\UDC-Traffic Files\P23-023\Modelling\Junction 3
Report generation date: 29/10/2024 12:22:33

»Opening Year+ Dev+ Adj,
»+5 + Dev + Adj, 12hrs,
»+15 + Dev + Adj, 12hrs ,

Summary of junction performance

	Queue (Veh)	Delay (s)	RFC	LOS
	Opening Year+ Dev+ Adj			
Stream B-AC	0.0	10.32	0.03	B
Stream C-AB	0.0	8.84	0.02	A
	+5 + Dev + Adj, 12hrs			
Stream B-AC	0.0	10.46	0.03	B
Stream C-AB	0.0	8.80	0.02	A
	+15 + Dev + Adj, 12hrs			
Stream B-AC	0.0	10.56	0.03	B
Stream C-AB	0.0	8.76	0.02	A

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

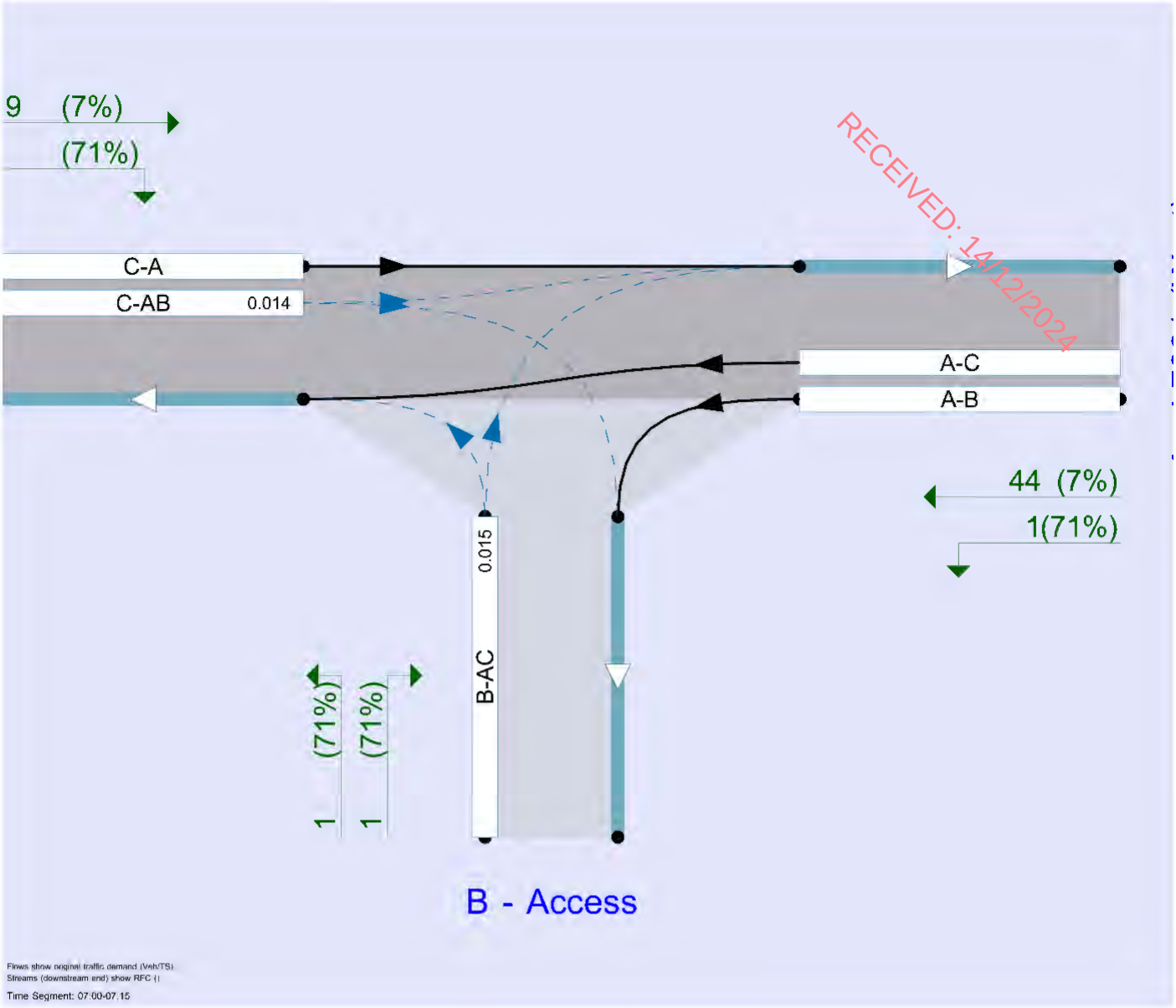
File summary

File Description

Title	Proposed Sand Pit, Kilmeague, Co. Kildare
Location	Kilmeague, Co. Kildare
Site number	3
Date	29/10/2024
Version	
Status	
Identifier	
Client	
Jobnumber	P23-023
Enumerator	papadakisa
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	Base Year, 12hrs	DIRECT	07:00	19:00	720	15			
D2	Opening Year, 12hrs	DIRECT	07:00	19:00	720	15			
D3	+5, 12hrs	DIRECT	07:00	19:00	720	15			
D4	+15, 12hrs	DIRECT	07:00	19:00	720	15			
D5	Dev Traffic, 12hrs	DIRECT	07:00	19:00	720	15			
D6	Adj Traffic, 12hrs	DIRECT	07:00	19:00	720	15			
D7	Opening Year+ Dev+ Adj	DIRECT	07:00	19:00	720	15	✓	Simple	D2+D5+D6
D8	+5 + Dev + Adj, 12hrs	DIRECT	07:00	19:00	720	15	✓	Simple	D3+D5+D6
D9	+15 + Dev + Adj, 12hrs	DIRECT	07:00	19:00	720	15	✓	Simple	D4+D5+D6

Analysis Set Details

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

Opening Year+ Dev+ Adj,

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	Access	T-Junction	Two-way		0.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	L7081 (West)		Major
B	Access		Minor
C	L7081 (East)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L7081 (East)	6.00			150.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Access	One lane	2.50	170	250

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	158.037	0.115	0.291	0.183	0.416
1	B-C	185.552	0.114	0.288	-	-
1	C-B	165.207	0.256	0.256	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D7	Opening Year+ Dev+ Adj	DIRECT	07:00	19:00	720	15	✓	Simple	D2+D5+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - L7081 (West)		DIRECT	✓	100.000
B - Access		DIRECT	✓	100.000
C - L7081 (East)		DIRECT	✓	100.000

Origin-Destination Data

07:00 - 07:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	37.52
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	16.41	1.20	0.00

07:15 - 07:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	37.52
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	16.41	1.20	0.00

07:30 - 07:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	37.52
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	16.41	1.20	0.00

07:45 - 08:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	37.52
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	16.41	1.20	0.00

08:00 - 08:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	46.35
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	33.59	2.18	0.00

08:15 - 08:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	46.35
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	33.59	2.18	0.00

08:30 - 08:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	46.35
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	33.59	2.18	0.00

08:45 - 09:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	46.35
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	33.59	2.18	0.00

09:00 - 09:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	22.46
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	23.76	0.98	0.00

09:15 - 09:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	22.46
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	23.76	0.98	0.00

09:30 - 09:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	22.46
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	23.76	0.98	0.00

09:45 - 10:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	22.46
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	23.76	0.98	0.00

10:00 - 10:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	17.27
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	13.62	0.62	0.00

10:15 - 10:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	17.27
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	13.62	0.62	0.00

10:30 - 10:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	17.27
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	13.62	0.62	0.00

10:45 - 11:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	17.27
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	13.62	0.62	0.00

11:00 - 11:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	15.69
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.22	0.65	0.00

11:15 - 11:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	15.69
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.22	0.65	0.00

11:30 - 11:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	15.69
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.22	0.65	0.00

11:45 - 12:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	15.69
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.22	0.65	0.00

12:00 - 12:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	21.91
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.27	0.48	0.00

12:15 - 12:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	21.91
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.27	0.48	0.00

12:30 - 12:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	21.91
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.27	0.48	0.00

12:45 - 13:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	21.91
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	18.27	0.48	0.00

13:00 - 13:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	19.12
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	23.53	0.79	0.00

13:15 - 13:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	19.12
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	23.53	0.79	0.00

13:30 - 13:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	19.12
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	23.53	0.79	0.00

13:45 - 14:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	19.12
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	23.53	0.79	0.00

14:00 - 14:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	20.63
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	23.17	0.87	0.00

14:15 - 14:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	20.63
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	23.17	0.87	0.00

14:30 - 14:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	20.63
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	23.17	0.87	0.00

14:45 - 15:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	20.63
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	23.17	0.87	0.00

15:00 - 15:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	27.66
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	25.77	0.70	0.00

15:15 - 15:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	27.66
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	25.77	0.70	0.00

15:30 - 15:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	27.66
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	25.77	0.70	0.00

15:45 - 16:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	27.66
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	25.77	0.70	0.00

16:00 - 16:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	28.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	39.60	0.54	0.00

16:15 - 16:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	28.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	39.60	0.54	0.00

16:30 - 16:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	28.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	39.60	0.54	0.00

16:45 - 17:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	28.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	39.60	0.54	0.00

17:00 - 17:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	28.08
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	37.18	0.19	0.00

17:15 - 17:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	28.08
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	37.18	0.19	0.00

17:30 - 17:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	28.08
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	37.18	0.19	0.00

17:45 - 18:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	28.08
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	37.18	0.19	0.00

18:00 - 18:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	19.50
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	32.24	0.39	0.00

18:15 - 18:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	19.50
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	32.24	0.39	0.00

18:30 - 18:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	19.50
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	32.24	0.39	0.00

18:45 - 19:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	19.50
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	32.24	0.39	0.00

Vehicle Mix

07:00 - 07:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	4
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

07:15 - 07:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	4
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

07:30 - 07:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	4
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

07:45 - 08:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	4
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

08:00 - 08:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	2
	B - Access	71	0	71
	C - L7081 (East)	3	26	0

08:15 - 08:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	2
	B - Access	71	0	71
	C - L7081 (East)	3	26	0

08:30 - 08:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	2
	B - Access	71	0	71
	C - L7081 (East)	3	26	0

08:45 - 09:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	2
	B - Access	71	0	71
	C - L7081 (East)	3	26	0

09:00 - 09:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	10	71	0

09:15 - 09:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	10	71	0

09:30 - 09:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	10	71	0

09:45 - 10:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	10	71	0

10:00 - 10:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	16
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

10:15 - 10:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	16
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

10:30 - 10:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	16
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

10:45 - 11:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	16
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

11:00 - 11:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

11:15 - 11:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

11:30 - 11:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

11:45 - 12:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

12:00 - 12:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	9	71	0

12:15 - 12:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	9	71	0

12:30 - 12:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	9	71	0

12:45 - 13:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	9	71	0

13:00 - 13:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	18
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

13:15 - 13:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	18
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

13:30 - 13:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	18
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

13:45 - 14:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	18
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

14:00 - 14:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

14:15 - 14:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

14:30 - 14:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

14:45 - 15:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

15:00 - 15:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

15:15 - 15:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

15:30 - 15:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

15:45 - 16:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	71	0	71
	C - L7081 (East)	2	71	0

16:00 - 16:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	5
	B - Access	20	0	20
	C - L7081 (East)	4	71	0

16:15 - 16:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	5
	B - Access	20	0	20
	C - L7081 (East)	4	71	0

16:30 - 16:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	5
	B - Access	20	0	20
	C - L7081 (East)	4	71	0

16:45 - 17:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	5
	B - Access	20	0	20
	C - L7081 (East)	4	71	0

17:00 - 17:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:15 - 17:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:30 - 17:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:45 - 18:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:00 - 18:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:15 - 18:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:30 - 18:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:45 - 19:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-AC	0.03	10.32	0.0	B	1.54	74.00
C-AB	0.02	8.84	0.0	A	1.02	48.95
C-A					25.23	1210.94
A-B					0.80	38.39
A-C					25.42	1220.39

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	91.39	0.015	1.37	0.0	0.0	9.996	A
C-AB	1.42	1.42	103.21	0.014	1.41	0.0	0.0	8.840	A
C-A	16.19	16.19			16.19				
A-B	1.20	1.20			1.20				
A-C	37.52	37.52			37.52				

07:15 - 07:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	91.39	0.015	1.39	0.0	0.0	9.998	A
C-AB	1.43	1.43	103.27	0.014	1.43	0.0	0.0	8.839	A
C-A	16.19	16.19			16.19				
A-B	1.20	1.20			1.20				
A-C	37.52	37.52			37.52				

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	91.39	0.015	1.39	0.0	0.0	9.998	A
C-AB	1.43	1.43	103.27	0.014	1.43	0.0	0.0	8.836	A
C-A	16.18	16.18			16.18				
A-B	1.20	1.20			1.20				
A-C	37.52	37.52			37.52				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	91.39	0.015	1.39	0.0	0.0	9.998	A
C-AB	1.43	1.43	103.27	0.014	1.43	0.0	0.0	8.838	A
C-A	16.18	16.18			16.18				
A-B	1.20	1.20			1.20				
A-C	37.52	37.52			37.52				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	88.67	0.017	1.46	0.0	0.0	10.320	B
C-AB	2.84	2.84	144.71	0.020	2.83	0.0	0.0	7.044	A
C-A	32.93	32.93			32.93				
A-B	2.18	2.18			2.18				
A-C	46.35	46.35			46.35				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	88.67	0.017	1.46	0.0	0.0	10.320	B
C-AB	2.84	2.84	144.99	0.020	2.84	0.0	0.0	6.334	A
C-A	32.93	32.93			32.93				
A-B	2.18	2.18			2.18				
A-C	46.35	46.35			46.35				

08:30 - 08:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	88.67	0.017	1.46	0.0	0.0	10.320	B
C-AB	2.84	2.84	144.98	0.020	2.84	0.0	0.0	6.333	A
C-A	32.93	32.93			32.93				
A-B	2.18	2.18			2.18				
A-C	46.35	46.35			46.35				

08:45 - 09:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	88.67	0.017	1.46	0.0	0.0	10.320	B
C-AB	2.84	2.84	144.98	0.020	2.84	0.0	0.0	6.333	A
C-A	32.93	32.93			32.93				
A-B	2.18	2.18			2.18				
A-C	46.35	46.35			46.35				

09:00 - 09:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	93.32	0.018	1.65	0.0	0.0	9.817	A
C-AB	1.26	1.26	111.39	0.011	1.27	0.0	0.0	6.856	A
C-A	23.49	23.49			23.49				
A-B	0.98	0.98			0.98				
A-C	22.46	22.46			22.46				

09:15 - 09:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	93.32	0.018	1.65	0.0	0.0	9.817	A
C-AB	1.26	1.26	110.87	0.011	1.25	0.0	0.0	8.208	A
C-A	23.49	23.49			23.49				
A-B	0.98	0.98			0.98				
A-C	22.46	22.46			22.46				

09:30 - 09:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	93.32	0.018	1.65	0.0	0.0	9.817	A
C-AB	1.26	1.26	110.88	0.011	1.26	0.0	0.0	8.211	A
C-A	23.49	23.49			23.49				
A-B	0.98	0.98			0.98				
A-C	22.46	22.46			22.46				

09:45 - 10:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	93.32	0.018	1.65	0.0	0.0	9.817	A
C-AB	1.26	1.26	110.88	0.011	1.26	0.0	0.0	8.209	A
C-A	23.49	23.49			23.49				
A-B	0.98	0.98			0.98				
A-C	22.46	22.46			22.46				

10:00 - 10:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.92	0.014	1.36	0.0	0.0	9.619	A
C-AB	0.72	0.72	103.63	0.007	0.72	0.0	0.0	8.540	A
C-A	13.52	13.52			13.52				
A-B	0.62	0.62			0.62				
A-C	17.27	17.27			17.27				

10:15 - 10:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.92	0.014	1.35	0.0	0.0	9.618	A
C-AB	0.72	0.72	103.54	0.007	0.72	0.0	0.0	8.753	A
C-A	13.52	13.52			13.52				
A-B	0.62	0.62			0.62				
A-C	17.27	17.27			17.27				

10:30 - 10:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.92	0.014	1.35	0.0	0.0	9.618	A
C-AB	0.72	0.72	103.54	0.007	0.72	0.0	0.0	8.752	A
C-A	13.52	13.52			13.52				
A-B	0.62	0.62			0.62				
A-C	17.27	17.27			17.27				

10:45 - 11:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.92	0.014	1.35	0.0	0.0	9.618	A
C-AB	0.72	0.72	103.54	0.007	0.72	0.0	0.0	8.752	A
C-A	13.52	13.52			13.52				
A-B	0.62	0.62			0.62				
A-C	17.27	17.27			17.27				

11:00 - 11:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	95.10	0.013	1.21	0.0	0.0	9.585	A
C-AB	0.78	0.78	107.91	0.007	0.78	0.0	0.0	8.519	A
C-A	18.09	18.09			18.09				
A-B	0.65	0.65			0.65				
A-C	15.69	15.69			15.69				

11:15 - 11:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	95.10	0.013	1.21	0.0	0.0	9.586	A
C-AB	0.78	0.78	107.94	0.007	0.78	0.0	0.0	8.398	A
C-A	18.09	18.09			18.09				
A-B	0.65	0.65			0.65				
A-C	15.69	15.69			15.69				

11:30 - 11:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	95.10	0.013	1.21	0.0	0.0	9.585	A
C-AB	0.78	0.78	107.94	0.007	0.78	0.0	0.0	8.399	A
C-A	18.09	18.09			18.09				
A-B	0.65	0.65			0.65				
A-C	15.69	15.69			15.69				

11:45 - 12:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	95.10	0.013	1.21	0.0	0.0	9.585	A
C-AB	0.78	0.78	107.94	0.007	0.78	0.0	0.0	8.398	A
C-A	18.09	18.09			18.09				
A-B	0.65	0.65			0.65				
A-C	15.69	15.69			15.69				

12:00 - 12:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.13	0.013	1.21	0.0	0.0	9.685	A
C-AB	0.58	0.58	106.98	0.005	0.58	0.0	0.0	8.429	A
C-A	18.17	18.17			18.17				
A-B	0.48	0.48			0.48				
A-C	21.91	21.91			21.91				

12:15 - 12:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.13	0.013	1.21	0.0	0.0	9.685	A
C-AB	0.58	0.58	106.95	0.005	0.58	0.0	0.0	8.459	A
C-A	18.17	18.17			18.17				
A-B	0.48	0.48			0.48				
A-C	21.91	21.91			21.91				

12:30 - 12:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.13	0.013	1.21	0.0	0.0	9.685	A
C-AB	0.58	0.58	106.95	0.005	0.58	0.0	0.0	8.460	A
C-A	18.17	18.17			18.17				
A-B	0.48	0.48			0.48				
A-C	21.91	21.91			21.91				

12:45 - 13:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.13	0.013	1.21	0.0	0.0	9.685	A
C-AB	0.58	0.58	106.95	0.005	0.58	0.0	0.0	8.460	A
C-A	18.17	18.17			18.17				
A-B	0.48	0.48			0.48				
A-C	21.91	21.91			21.91				

13:00 - 13:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	93.73	0.018	1.68	0.0	0.0	9.777	A
C-AB	1.00	1.00	110.82	0.009	1.00	0.0	0.0	8.222	A
C-A	23.32	23.32			23.32				
A-B	0.79	0.79			0.79				
A-C	19.12	19.12			19.12				

13:15 - 13:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	93.73	0.018	1.69	0.0	0.0	9.777	A
C-AB	1.00	1.00	110.85	0.009	1.00	0.0	0.0	8.193	A
C-A	23.32	23.32			23.32				
A-B	0.79	0.79			0.79				
A-C	19.12	19.12			19.12				

13:30 - 13:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	93.73	0.018	1.69	0.0	0.0	9.777	A
C-AB	1.00	1.00	110.85	0.009	1.00	0.0	0.0	8.194	A
C-A	23.32	23.32			23.32				
A-B	0.79	0.79			0.79				
A-C	19.12	19.12			19.12				

13:45 - 14:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	93.73	0.018	1.69	0.0	0.0	9.777	A
C-AB	1.00	1.00	110.85	0.009	1.00	0.0	0.0	8.194	A
C-A	23.32	23.32			23.32				
A-B	0.79	0.79			0.79				
A-C	19.12	19.12			19.12				

14:00 - 14:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.87	0.019	1.79	0.0	0.0	9.774	A
C-AB	1.11	1.11	111.08	0.010	1.11	0.0	0.0	8.239	A
C-A	22.94	22.94			22.94				
A-B	0.87	0.87			0.87				
A-C	20.63	20.63			20.63				

14:15 - 14:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.87	0.019	1.80	0.0	0.0	9.774	A
C-AB	1.11	1.11	111.10	0.010	1.11	0.0	0.0	8.182	A
C-A	22.94	22.94			22.94				
A-B	0.87	0.87			0.87				
A-C	20.63	20.63			20.63				

14:30 - 14:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.87	0.019	1.80	0.0	0.0	9.774	A
C-AB	1.11	1.11	111.10	0.010	1.11	0.0	0.0	8.183	A
C-A	22.94	22.94			22.94				
A-B	0.87	0.87			0.87				
A-C	20.63	20.63			20.63				

14:45 - 15:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.87	0.019	1.80	0.0	0.0	9.774	A
C-AB	1.11	1.11	111.10	0.010	1.11	0.0	0.0	8.181	A
C-A	22.94	22.94			22.94				
A-B	0.87	0.87			0.87				
A-C	20.63	20.63			20.63				

15:00 - 15:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	92.54	0.013	1.19	0.0	0.0	9.851	A
C-AB	0.91	0.91	112.23	0.008	0.91	0.0	0.0	8.129	A
C-A	25.56	25.56			25.56				
A-B	0.70	0.70			0.70				
A-C	27.66	27.66			27.66				

15:15 - 15:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	92.54	0.013	1.18	0.0	0.0	9.850	A
C-AB	0.91	0.91	112.22	0.008	0.91	0.0	0.0	8.086	A
C-A	25.56	25.56			25.56				
A-B	0.70	0.70			0.70				
A-C	27.66	27.66			27.66				

15:30 - 15:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	92.54	0.013	1.18	0.0	0.0	9.850	A
C-AB	0.91	0.91	112.22	0.008	0.91	0.0	0.0	8.086	A
C-A	25.56	25.56			25.56				
A-B	0.70	0.70			0.70				
A-C	27.66	27.66			27.66				

15:45 - 16:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	92.54	0.013	1.18	0.0	0.0	9.850	A
C-AB	0.91	0.91	112.22	0.008	0.91	0.0	0.0	8.087	A
C-A	25.56	25.56			25.56				
A-B	0.70	0.70			0.70				
A-C	27.66	27.66			27.66				

16:00 - 16:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	130.12	0.030	3.83	0.0	0.0	7.846	A
C-AB	0.80	0.80	123.00	0.007	0.81	0.0	0.0	7.518	A
C-A	39.33	39.33			39.33				
A-B	0.54	0.54			0.54				
A-C	28.93	28.93			28.93				

16:15 - 16:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	130.31	0.030	3.86	0.0	0.0	7.116	A
C-AB	0.80	0.80	123.02	0.007	0.80	0.0	0.0	7.365	A
C-A	39.34	39.34			39.34				
A-B	0.54	0.54			0.54				
A-C	28.93	28.93			28.93				

16:30 - 16:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	130.31	0.030	3.85	0.0	0.0	7.119	A
C-AB	0.80	0.80	123.01	0.007	0.80	0.0	0.0	7.363	A
C-A	39.34	39.34			39.34				
A-B	0.54	0.54			0.54				
A-C	28.93	28.93			28.93				

16:45 - 17:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	130.31	0.030	3.85	0.0	0.0	7.116	A
C-AB	0.80	0.80	123.01	0.007	0.80	0.0	0.0	7.366	A
C-A	39.34	39.34			39.34				
A-B	0.54	0.54			0.54				
A-C	28.93	28.93			28.93				

17:00 - 17:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	92.96	0.014	1.34	0.0	0.0	7.678	A
C-AB	0.27	0.27	122.00	0.002	0.28	0.0	0.0	7.407	A
C-A	37.10	37.10			37.10				
A-B	0.19	0.19			0.19				
A-C	28.08	28.08			28.08				

17:15 - 17:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	92.34	0.014	1.32	0.0	0.0	9.887	A
C-AB	0.27	0.27	121.80	0.002	0.27	0.0	0.0	7.401	A
C-A	37.10	37.10			37.10				
A-B	0.19	0.19			0.19				
A-C	28.08	28.08			28.08				

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	92.34	0.014	1.32	0.0	0.0	9.887	A
C-AB	0.27	0.27	121.80	0.002	0.27	0.0	0.0	7.404	A
C-A	37.10	37.10			37.10				
A-B	0.19	0.19			0.19				
A-C	28.08	28.08			28.08				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	92.34	0.014	1.32	0.0	0.0	9.887	A
C-AB	0.27	0.27	121.80	0.002	0.27	0.0	0.0	7.404	A
C-A	37.10	37.10			37.10				
A-B	0.19	0.19			0.19				
A-C	28.08	28.08			28.08				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	94.05	0.004	0.39	0.0	0.0	9.611	A
C-AB	0.54	0.54	118.97	0.005	0.54	0.0	0.0	7.556	A
C-A	32.10	32.10			32.10				
A-B	0.39	0.39			0.39				
A-C	19.50	19.50			19.50				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	94.05	0.004	0.38	0.0	0.0	9.607	A
C-AB	0.54	0.54	119.01	0.005	0.54	0.0	0.0	7.597	A
C-A	32.10	32.10			32.10				
A-B	0.39	0.39			0.39				
A-C	19.50	19.50			19.50				

18:30 - 18:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	94.05	0.004	0.38	0.0	0.0	9.607	A
C-AB	0.54	0.54	119.01	0.005	0.54	0.0	0.0	7.599	A
C-A	32.09	32.09			32.09				
A-B	0.39	0.39			0.39				
A-C	19.50	19.50			19.50				

18:45 - 19:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	94.05	0.004	0.38	0.0	0.0	9.607	A
C-AB	0.54	0.54	119.01	0.005	0.54	0.0	0.0	7.599	A
C-A	32.09	32.09			32.09				
A-B	0.39	0.39			0.39				
A-C	19.50	19.50			19.50				

+5 + Dev + Adj, 12hrs,

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	Access	T-Junction	Two-way		0.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D8	+5 + Dev + Adj, 12hrs	DIRECT	07:00	19:00	720	15	✓	Simple	D3+D5+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - L7081 (West)		DIRECT	✓	100.000
B - Access		DIRECT	✓	100.000
C - L7081 (East)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:00 - 07:15

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	41.03
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	17.95	1.20	0.00

Demand (Veh/TS)

07:15 - 07:30

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	41.03
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	17.95	1.20	0.00

Demand (Veh/TS)

07:30 - 07:45

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	41.03
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	17.95	1.20	0.00

07:45 - 08:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	41.03
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	17.95	1.20	0.00

08:00 - 08:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	50.61
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	36.69	2.18	0.00

08:15 - 08:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	50.61
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	36.69	2.18	0.00

08:30 - 08:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	50.61
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	36.69	2.18	0.00

08:45 - 09:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	50.61
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	36.69	2.18	0.00

09:00 - 09:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	24.70
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	26.11	0.98	0.00

09:15 - 09:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	24.70
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	26.11	0.98	0.00

09:30 - 09:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	24.70
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	26.11	0.98	0.00

09:45 - 10:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	24.70
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	26.11	0.98	0.00

10:00 - 10:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	19.08
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	15.08	0.62	0.00

10:15 - 10:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	19.08
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	15.08	0.62	0.00

10:30 - 10:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	19.08
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	15.08	0.62	0.00

10:45 - 11:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	19.08
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	15.08	0.62	0.00

11:00 - 11:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	17.31
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	19.90	0.65	0.00

11:15 - 11:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	17.31
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	19.90	0.65	0.00

11:30 - 11:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	17.31
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	19.90	0.65	0.00

11:45 - 12:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	17.31
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	19.90	0.65	0.00

12:00 - 12:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	24.03
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	20.07	0.48	0.00

12:15 - 12:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	24.03
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	20.07	0.48	0.00

12:30 - 12:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	24.03
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	20.07	0.48	0.00

12:45 - 13:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	24.03
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	20.07	0.48	0.00

13:00 - 13:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	21.16
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	25.97	0.79	0.00

13:15 - 13:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	21.16
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	25.97	0.79	0.00

13:30 - 13:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	21.16
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	25.97	0.79	0.00

13:45 - 14:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	21.16
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	25.97	0.79	0.00

14:00 - 14:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	22.68
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	25.31	0.87	0.00

14:15 - 14:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	22.68
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	25.31	0.87	0.00

14:30 - 14:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	22.68
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	25.31	0.87	0.00

14:45 - 15:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	22.68
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	25.31	0.87	0.00

15:00 - 15:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	30.35
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	28.13	0.70	0.00

15:15 - 15:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	30.35
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	28.13	0.70	0.00

15:30 - 15:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	30.35
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	28.13	0.70	0.00

15:45 - 16:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	30.35
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	28.13	0.70	0.00

16:00 - 16:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	31.66
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	43.29	0.54	0.00

16:15 - 16:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	31.66
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	43.29	0.54	0.00

16:30 - 16:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	31.66
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	43.29	0.54	0.00

16:45 - 17:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	31.66
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	43.29	0.54	0.00

17:00 - 17:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	30.58
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	40.47	0.19	0.00

17:15 - 17:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	30.58
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	40.47	0.19	0.00

17:30 - 17:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	30.58
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	40.47	0.19	0.00

17:45 - 18:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	30.58
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	40.47	0.19	0.00

18:00 - 18:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	21.21
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	35.10	0.39	0.00

18:15 - 18:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	21.21
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	35.10	0.39	0.00

18:30 - 18:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	21.21
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	35.10	0.39	0.00

18:45 - 19:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	21.21
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	35.10	0.39	0.00

Vehicle Mix

07:00 - 07:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	6
	B - Access	71	0	71
	C - L7081 (East)	6	71	0

07:15 - 07:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	6
	B - Access	71	0	71
	C - L7081 (East)	6	71	0

07:30 - 07:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	6
	B - Access	71	0	71
	C - L7081 (East)	6	71	0

07:45 - 08:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	6
	B - Access	71	0	71
	C - L7081 (East)	6	71	0

08:00 - 08:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	4
	B - Access	71	0	71
	C - L7081 (East)	4	26	0

08:15 - 08:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	4
	B - Access	71	0	71
	C - L7081 (East)	4	26	0

08:30 - 08:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	4
	B - Access	71	0	71
	C - L7081 (East)	4	26	0

08:45 - 09:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	4
	B - Access	71	0	71
	C - L7081 (East)	4	26	0

09:00 - 09:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

09:15 - 09:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

09:30 - 09:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

09:45 - 10:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

10:00 - 10:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	22	71	0

10:15 - 10:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	22	71	0

10:30 - 10:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	22	71	0

10:45 - 11:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	22	71	0

11:00 - 11:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	17
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

11:15 - 11:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	17
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

11:30 - 11:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	17
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

11:45 - 12:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	17
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

12:00 - 12:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

12:15 - 12:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

12:30 - 12:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

12:45 - 13:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	10
	B - Access	71	0	71
	C - L7081 (East)	12	71	0

13:00 - 13:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	21
	B - Access	71	0	71
	C - L7081 (East)	17	71	0

13:15 - 13:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	21
	B - Access	71	0	71
	C - L7081 (East)	17	71	0

13:30 - 13:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	21
	B - Access	71	0	71
	C - L7081 (East)	17	71	0

13:45 - 14:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	21
	B - Access	71	0	71
	C - L7081 (East)	17	71	0

14:00 - 14:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

14:15 - 14:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

14:30 - 14:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

14:45 - 15:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	13
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:00 - 15:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:15 - 15:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:30 - 15:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:45 - 16:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

16:00 - 16:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

16:15 - 16:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

16:30 - 16:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

16:45 - 17:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

17:00 - 17:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:15 - 17:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:30 - 17:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:45 - 18:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:00 - 18:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:15 - 18:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:30 - 18:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:45 - 19:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-AC	0.03	10.46	0.0	B	1.54	74.00
C-AB	0.02	8.80	0.0	A	1.04	50.11
C-A					27.60	1324.58
A-B					0.80	38.39
A-C					27.87	1337.61

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	90.50	0.015	1.37	0.0	0.0	10.096	B
C-AB	1.45	1.45	103.71	0.014	1.43	0.0	0.0	8.798	A
C-A	17.70	17.70			17.70				
A-B	1.20	1.20			1.20				
A-C	41.03	41.03			41.03				

07:15 - 07:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	90.50	0.015	1.39	0.0	0.0	10.098	B
C-AB	1.45	1.45	103.78	0.014	1.45	0.0	0.0	8.799	A
C-A	17.70	17.70			17.70				
A-B	1.20	1.20			1.20				
A-C	41.03	41.03			41.03				

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	90.50	0.015	1.39	0.0	0.0	10.098	B
C-AB	1.45	1.45	103.78	0.014	1.45	0.0	0.0	8.796	A
C-A	17.70	17.70			17.70				
A-B	1.20	1.20			1.20				
A-C	41.03	41.03			41.03				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	90.50	0.015	1.39	0.0	0.0	10.098	B
C-AB	1.45	1.45	103.78	0.014	1.45	0.0	0.0	8.794	A
C-A	17.70	17.70			17.70				
A-B	1.20	1.20			1.20				
A-C	41.03	41.03			41.03				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	87.51	0.017	1.46	0.0	0.0	10.459	B
C-AB	2.92	2.92	145.80	0.020	2.90	0.0	0.0	6.980	A
C-A	35.95	35.95			35.95				
A-B	2.18	2.18			2.18				
A-C	50.61	50.61			50.61				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	87.51	0.017	1.46	0.0	0.0	10.459	B
C-AB	2.92	2.92	146.07	0.020	2.92	0.0	0.0	6.286	A
C-A	35.95	35.95			35.95				
A-B	2.18	2.18			2.18				
A-C	50.61	50.61			50.61				

08:30 - 08:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	87.51	0.017	1.46	0.0	0.0	10.459	B
C-AB	2.92	2.92	146.07	0.020	2.92	0.0	0.0	6.289	A
C-A	35.95	35.95			35.95				
A-B	2.18	2.18			2.18				
A-C	50.61	50.61			50.61				

08:45 - 09:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	87.51	0.017	1.46	0.0	0.0	10.459	B
C-AB	2.92	2.92	146.07	0.020	2.92	0.0	0.0	6.286	A
C-A	35.95	35.95			35.95				
A-B	2.18	2.18			2.18				
A-C	50.61	50.61			50.61				

09:00 - 09:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	92.58	0.018	1.65	0.0	0.0	9.898	A
C-AB	1.29	1.29	112.65	0.011	1.30	0.0	0.0	6.794	A
C-A	25.81	25.81			25.81				
A-B	0.98	0.98			0.98				
A-C	24.70	24.70			24.70				

09:15 - 09:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	92.58	0.018	1.65	0.0	0.0	9.897	A
C-AB	1.29	1.29	112.12	0.011	1.28	0.0	0.0	8.118	A
C-A	25.81	25.81			25.81				
A-B	0.98	0.98			0.98				
A-C	24.70	24.70			24.70				

09:30 - 09:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	92.58	0.018	1.65	0.0	0.0	9.897	A
C-AB	1.29	1.29	112.13	0.011	1.29	0.0	0.0	8.121	A
C-A	25.81	25.81			25.81				
A-B	0.98	0.98			0.98				
A-C	24.70	24.70			24.70				

09:45 - 10:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	92.58	0.018	1.65	0.0	0.0	9.897	A
C-AB	1.29	1.29	112.13	0.011	1.29	0.0	0.0	8.120	A
C-A	25.81	25.81			25.81				
A-B	0.98	0.98			0.98				
A-C	24.70	24.70			24.70				

10:00 - 10:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.32	0.014	1.36	0.0	0.0	9.681	A
C-AB	0.73	0.73	104.25	0.007	0.73	0.0	0.0	8.477	A
C-A	14.98	14.98			14.98				
A-B	0.62	0.62			0.62				
A-C	19.08	19.08			19.08				

10:15 - 10:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.32	0.014	1.35	0.0	0.0	9.680	A
C-AB	0.73	0.73	104.15	0.007	0.73	0.0	0.0	8.702	A
C-A	14.98	14.98			14.98				
A-B	0.62	0.62			0.62				
A-C	19.08	19.08			19.08				

10:30 - 10:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.32	0.014	1.35	0.0	0.0	9.680	A
C-AB	0.73	0.73	104.15	0.007	0.73	0.0	0.0	8.703	A
C-A	14.98	14.98			14.98				
A-B	0.62	0.62			0.62				
A-C	19.08	19.08			19.08				

10:45 - 11:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	94.32	0.014	1.35	0.0	0.0	9.680	A
C-AB	0.73	0.73	104.15	0.007	0.73	0.0	0.0	8.703	A
C-A	14.98	14.98			14.98				
A-B	0.62	0.62			0.62				
A-C	19.08	19.08			19.08				

11:00 - 11:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.57	0.013	1.21	0.0	0.0	9.642	A
C-AB	0.79	0.79	108.82	0.007	0.79	0.0	0.0	8.459	A
C-A	19.75	19.75			19.75				
A-B	0.65	0.65			0.65				
A-C	17.31	17.31			17.31				

11:15 - 11:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.57	0.013	1.21	0.0	0.0	9.641	A
C-AB	0.79	0.79	108.85	0.007	0.79	0.0	0.0	8.328	A
C-A	19.75	19.75			19.75				
A-B	0.65	0.65			0.65				
A-C	17.31	17.31			17.31				

11:30 - 11:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.57	0.013	1.21	0.0	0.0	9.640	A
C-AB	0.79	0.79	108.85	0.007	0.79	0.0	0.0	8.328	A
C-A	19.75	19.75			19.75				
A-B	0.65	0.65			0.65				
A-C	17.31	17.31			17.31				

11:45 - 12:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.57	0.013	1.21	0.0	0.0	9.640	A
C-AB	0.79	0.79	108.85	0.007	0.79	0.0	0.0	8.328	A
C-A	19.75	19.75			19.75				
A-B	0.65	0.65			0.65				
A-C	17.31	17.31			17.31				

12:00 - 12:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	93.49	0.013	1.21	0.0	0.0	9.753	A
C-AB	0.59	0.59	107.87	0.005	0.59	0.0	0.0	8.354	A
C-A	19.96	19.96			19.96				
A-B	0.48	0.48			0.48				
A-C	24.03	24.03			24.03				

12:15 - 12:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	93.49	0.013	1.21	0.0	0.0	9.753	A
C-AB	0.59	0.59	107.84	0.005	0.59	0.0	0.0	8.392	A
C-A	19.96	19.96			19.96				
A-B	0.48	0.48			0.48				
A-C	24.03	24.03			24.03				

12:30 - 12:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	93.49	0.013	1.21	0.0	0.0	9.753	A
C-AB	0.59	0.59	107.84	0.005	0.59	0.0	0.0	8.391	A
C-A	19.96	19.96			19.96				
A-B	0.48	0.48			0.48				
A-C	24.03	24.03			24.03				

12:45 - 13:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	93.49	0.013	1.21	0.0	0.0	9.753	A
C-AB	0.59	0.59	107.84	0.005	0.59	0.0	0.0	8.392	A
C-A	19.96	19.96			19.96				
A-B	0.48	0.48			0.48				
A-C	24.03	24.03			24.03				

13:00 - 13:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.97	0.018	1.68	0.0	0.0	9.858	A
C-AB	1.03	1.03	112.09	0.009	1.02	0.0	0.0	8.129	A
C-A	25.73	25.73			25.73				
A-B	0.79	0.79			0.79				
A-C	21.16	21.16			21.16				

13:15 - 13:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.97	0.018	1.69	0.0	0.0	9.858	A
C-AB	1.03	1.03	112.12	0.009	1.03	0.0	0.0	8.102	A
C-A	25.73	25.73			25.73				
A-B	0.79	0.79			0.79				
A-C	21.16	21.16			21.16				

13:30 - 13:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.97	0.018	1.69	0.0	0.0	9.858	A
C-AB	1.03	1.03	112.12	0.009	1.03	0.0	0.0	8.102	A
C-A	25.73	25.73			25.73				
A-B	0.79	0.79			0.79				
A-C	21.16	21.16			21.16				

13:45 - 14:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.97	0.018	1.69	0.0	0.0	9.858	A
C-AB	1.03	1.03	112.12	0.009	1.03	0.0	0.0	8.101	A
C-A	25.73	25.73			25.73				
A-B	0.79	0.79			0.79				
A-C	21.16	21.16			21.16				

14:00 - 14:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.21	0.019	1.79	0.0	0.0	9.845	A
C-AB	1.13	1.13	112.27	0.010	1.13	0.0	0.0	8.161	A
C-A	25.05	25.05			25.05				
A-B	0.87	0.87			0.87				
A-C	22.68	22.68			22.68				

14:15 - 14:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.21	0.019	1.80	0.0	0.0	9.845	A
C-AB	1.13	1.13	112.29	0.010	1.13	0.0	0.0	8.098	A
C-A	25.05	25.05			25.05				
A-B	0.87	0.87			0.87				
A-C	22.68	22.68			22.68				

14:30 - 14:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.21	0.019	1.80	0.0	0.0	9.845	A
C-AB	1.13	1.13	112.29	0.010	1.13	0.0	0.0	8.097	A
C-A	25.05	25.05			25.05				
A-B	0.87	0.87			0.87				
A-C	22.68	22.68			22.68				

14:45 - 15:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	93.21	0.019	1.80	0.0	0.0	9.845	A
C-AB	1.13	1.13	112.29	0.010	1.13	0.0	0.0	8.096	A
C-A	25.05	25.05			25.05				
A-B	0.87	0.87			0.87				
A-C	22.68	22.68			22.68				

15:00 - 15:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.73	0.013	1.19	0.0	0.0	9.940	A
C-AB	0.93	0.93	113.49	0.008	0.94	0.0	0.0	8.044	A
C-A	27.90	27.90			27.90				
A-B	0.70	0.70			0.70				
A-C	30.35	30.35			30.35				

15:15 - 15:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.73	0.013	1.18	0.0	0.0	9.938	A
C-AB	0.93	0.93	113.49	0.008	0.93	0.0	0.0	7.995	A
C-A	27.90	27.90			27.90				
A-B	0.70	0.70			0.70				
A-C	30.35	30.35			30.35				

15:30 - 15:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.73	0.013	1.18	0.0	0.0	9.938	A
C-AB	0.93	0.93	113.48	0.008	0.93	0.0	0.0	7.996	A
C-A	27.90	27.90			27.90				
A-B	0.70	0.70			0.70				
A-C	30.35	30.35			30.35				

15:45 - 16:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.73	0.013	1.18	0.0	0.0	9.938	A
C-AB	0.93	0.93	113.48	0.008	0.93	0.0	0.0	7.996	A
C-A	27.90	27.90			27.90				
A-B	0.70	0.70			0.70				
A-C	30.35	30.35			30.35				

16:00 - 16:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	128.82	0.030	3.83	0.0	0.0	7.928	A
C-AB	0.83	0.83	125.27	0.007	0.84	0.0	0.0	7.383	A
C-A	43.00	43.00			43.00				
A-B	0.54	0.54			0.54				
A-C	31.66	31.66			31.66				

16:15 - 16:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	129.00	0.030	3.86	0.0	0.0	7.193	A
C-AB	0.83	0.83	125.29	0.007	0.83	0.0	0.0	7.229	A
C-A	43.00	43.00			43.00				
A-B	0.54	0.54			0.54				
A-C	31.66	31.66			31.66				

16:30 - 16:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	129.00	0.030	3.85	0.0	0.0	7.193	A
C-AB	0.83	0.83	125.28	0.007	0.83	0.0	0.0	7.230	A
C-A	43.00	43.00			43.00				
A-B	0.54	0.54			0.54				
A-C	31.66	31.66			31.66				

16:45 - 17:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	129.00	0.030	3.85	0.0	0.0	7.190	A
C-AB	0.83	0.83	125.28	0.007	0.83	0.0	0.0	7.233	A
C-A	43.00	43.00			43.00				
A-B	0.54	0.54			0.54				
A-C	31.66	31.66			31.66				

17:00 - 17:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	92.30	0.014	1.34	0.0	0.0	7.734	A
C-AB	0.28	0.28	124.25	0.002	0.29	0.0	0.0	7.292	A
C-A	40.38	40.38			40.38				
A-B	0.19	0.19			0.19				
A-C	30.58	30.58			30.58				

17:15 - 17:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.67	0.014	1.32	0.0	0.0	9.960	A
C-AB	0.28	0.28	124.06	0.002	0.28	0.0	0.0	7.267	A
C-A	40.38	40.38			40.38				
A-B	0.19	0.19			0.19				
A-C	30.58	30.58			30.58				

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.67	0.014	1.32	0.0	0.0	9.960	A
C-AB	0.28	0.28	124.06	0.002	0.28	0.0	0.0	7.273	A
C-A	40.38	40.38			40.38				
A-B	0.19	0.19			0.19				
A-C	30.58	30.58			30.58				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.67	0.014	1.32	0.0	0.0	9.960	A
C-AB	0.28	0.28	124.06	0.002	0.28	0.0	0.0	7.273	A
C-A	40.38	40.38			40.38				
A-B	0.19	0.19			0.19				
A-C	30.58	30.58			30.58				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.57	0.004	0.39	0.0	0.0	9.659	A
C-AB	0.56	0.56	120.98	0.005	0.55	0.0	0.0	7.428	A
C-A	34.94	34.94			34.94				
A-B	0.39	0.39			0.39				
A-C	21.21	21.21			21.21				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.57	0.004	0.38	0.0	0.0	9.657	A
C-AB	0.56	0.56	121.02	0.005	0.56	0.0	0.0	7.474	A
C-A	34.94	34.94			34.94				
A-B	0.39	0.39			0.39				
A-C	21.21	21.21			21.21				

18:30 - 18:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.57	0.004	0.38	0.0	0.0	9.657	A
C-AB	0.56	0.56	121.02	0.005	0.56	0.0	0.0	7.470	A
C-A	34.94	34.94			34.94				
A-B	0.39	0.39			0.39				
A-C	21.21	21.21			21.21				

18:45 - 19:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.57	0.004	0.38	0.0	0.0	9.657	A
C-AB	0.56	0.56	121.02	0.005	0.56	0.0	0.0	7.470	A
C-A	34.94	34.94			34.94				
A-B	0.39	0.39			0.39				
A-C	21.21	21.21			21.21				

+15 + Dev + Adj, 12hrs ,

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	Access	T-Junction	Two-way		0.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D9	+15 + Dev + Adj, 12hrs	DIRECT	07:00	19:00	720	15	✓	Simple	D4+D5+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - L7081 (West)		DIRECT	✓	100.000
B - Access		DIRECT	✓	100.000
C - L7081 (East)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:00 - 07:15

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	43.91
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	19.22	1.20	0.00

Demand (Veh/TS)

07:15 - 07:30

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	43.91
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	19.22	1.20	0.00

Demand (Veh/TS)

07:30 - 07:45

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	43.91
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	19.22	1.20	0.00

07:45 - 08:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	1.20	43.91
	B - Access	0.69	0.00	0.69
	C - L7081 (East)	19.22	1.20	0.00

08:00 - 08:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	54.06
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	39.19	2.18	0.00

08:15 - 08:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	54.06
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	39.19	2.18	0.00

08:30 - 08:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	54.06
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	39.19	2.18	0.00

08:45 - 09:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	2.18	54.06
	B - Access	0.73	0.00	0.73
	C - L7081 (East)	39.19	2.18	0.00

09:00 - 09:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	26.62
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	28.13	0.98	0.00

09:15 - 09:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	26.62
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	28.13	0.98	0.00

09:30 - 09:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	26.62
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	28.13	0.98	0.00

09:45 - 10:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.98	26.62
	B - Access	0.83	0.00	0.83
	C - L7081 (East)	28.13	0.98	0.00

10:00 - 10:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	20.68
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	16.40	0.62	0.00

10:15 - 10:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	20.68
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	16.40	0.62	0.00

10:30 - 10:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	20.68
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	16.40	0.62	0.00

10:45 - 11:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.62	20.68
	B - Access	0.68	0.00	0.68
	C - L7081 (East)	16.40	0.62	0.00

11:00 - 11:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	18.74
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.25	0.65	0.00

11:15 - 11:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	18.74
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.25	0.65	0.00

11:30 - 11:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	18.74
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.25	0.65	0.00

11:45 - 12:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.65	18.74
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.25	0.65	0.00

12:00 - 12:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	25.81
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.60	0.48	0.00

12:15 - 12:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	25.81
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.60	0.48	0.00

12:30 - 12:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	25.81
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.60	0.48	0.00

12:45 - 13:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.48	25.81
	B - Access	0.61	0.00	0.61
	C - L7081 (East)	21.60	0.48	0.00

13:00 - 13:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	23.00
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	28.11	0.79	0.00

13:15 - 13:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	23.00
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	28.11	0.79	0.00

13:30 - 13:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	23.00
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	28.11	0.79	0.00

13:45 - 14:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.79	23.00
	B - Access	0.84	0.00	0.84
	C - L7081 (East)	28.11	0.79	0.00

14:00 - 14:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	24.45
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	27.03	0.87	0.00

14:15 - 14:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	24.45
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	27.03	0.87	0.00

14:30 - 14:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	24.45
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	27.03	0.87	0.00

14:45 - 15:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.87	24.45
	B - Access	0.90	0.00	0.90
	C - L7081 (East)	27.03	0.87	0.00

15:00 - 15:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	32.63
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	30.04	0.70	0.00

15:15 - 15:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	32.63
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	30.04	0.70	0.00

15:30 - 15:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	32.63
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	30.04	0.70	0.00

15:45 - 16:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.70	32.63
	B - Access	0.59	0.00	0.59
	C - L7081 (East)	30.04	0.70	0.00

16:00 - 16:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	33.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	46.32	0.54	0.00

16:15 - 16:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	33.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	46.32	0.54	0.00

16:30 - 16:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	33.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	46.32	0.54	0.00

16:45 - 17:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.54	33.93
	B - Access	1.93	0.00	1.93
	C - L7081 (East)	46.32	0.54	0.00

17:00 - 17:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	32.53
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	43.05	0.19	0.00

17:15 - 17:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	32.53
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	43.05	0.19	0.00

17:30 - 17:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	32.53
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	43.05	0.19	0.00

17:45 - 18:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.19	32.53
	B - Access	0.66	0.00	0.66
	C - L7081 (East)	43.05	0.19	0.00

18:00 - 18:15

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	22.54
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	37.34	0.39	0.00

18:15 - 18:30

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	22.54
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	37.34	0.39	0.00

18:30 - 18:45

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	22.54
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	37.34	0.39	0.00

18:45 - 19:00

Demand (Veh/TS)

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0.00	0.39	22.54
	B - Access	0.19	0.00	0.19
	C - L7081 (East)	37.34	0.39	0.00

Vehicle Mix

07:00 - 07:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	7	71	0

07:15 - 07:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	7	71	0

07:30 - 07:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	7	71	0

07:45 - 08:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	7
	B - Access	71	0	71
	C - L7081 (East)	7	71	0

08:00 - 08:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	5
	B - Access	71	0	71
	C - L7081 (East)	5	26	0

08:15 - 08:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	5
	B - Access	71	0	71
	C - L7081 (East)	5	26	0

08:30 - 08:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	5
	B - Access	71	0	71
	C - L7081 (East)	5	26	0

08:45 - 09:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	26	5
	B - Access	71	0	71
	C - L7081 (East)	5	26	0

09:00 - 09:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

09:15 - 09:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

09:30 - 09:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

09:45 - 10:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	14	71	0

10:00 - 10:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	20
	B - Access	71	0	71
	C - L7081 (East)	24	71	0

10:15 - 10:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	20
	B - Access	71	0	71
	C - L7081 (East)	24	71	0

10:30 - 10:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	20
	B - Access	71	0	71
	C - L7081 (East)	24	71	0

10:45 - 11:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	20
	B - Access	71	0	71
	C - L7081 (East)	24	71	0

11:00 - 11:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

11:15 - 11:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

11:30 - 11:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

11:45 - 12:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	19
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

12:00 - 12:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	13	71	0

12:15 - 12:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	13	71	0

12:30 - 12:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	13	71	0

12:45 - 13:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	11
	B - Access	71	0	71
	C - L7081 (East)	13	71	0

13:00 - 13:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	23
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

13:15 - 13:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	23
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

13:30 - 13:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	23
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

13:45 - 14:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	23
	B - Access	71	0	71
	C - L7081 (East)	19	71	0

14:00 - 14:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

14:15 - 14:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

14:30 - 14:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

14:45 - 15:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	14
	B - Access	71	0	71
	C - L7081 (East)	5	71	0

15:00 - 15:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	12
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:15 - 15:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	12
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:30 - 15:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	12
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

15:45 - 16:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	12
	B - Access	71	0	71
	C - L7081 (East)	4	71	0

16:00 - 16:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

16:15 - 16:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

16:30 - 16:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

16:45 - 17:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	8
	B - Access	20	0	20
	C - L7081 (East)	6	71	0

17:00 - 17:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	1
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:15 - 17:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	1
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:30 - 17:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	1
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

17:45 - 18:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	1
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:00 - 18:15

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:15 - 18:30

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:30 - 18:45

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

18:45 - 19:00

Heavy Vehicle Percentages

		To		
		A - L7081 (West)	B - Access	C - L7081 (East)
From	A - L7081 (West)	0	71	0
	B - Access	71	0	71
	C - L7081 (East)	0	71	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-AC	0.03	10.56	0.0	B	1.54	74.00
C-AB	0.02	8.76	0.0	A	1.06	51.08
C-A					29.54	1418.00
A-B					0.80	38.39
A-C					29.91	1435.63

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	89.84	0.015	1.37	0.0	0.0	10.172	B
C-AB	1.47	1.47	104.21	0.014	1.45	0.0	0.0	8.758	A
C-A	18.95	18.95			18.95				
A-B	1.20	1.20			1.20				
A-C	43.91	43.91			43.91				

07:15 - 07:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	89.83	0.015	1.39	0.0	0.0	10.175	B
C-AB	1.47	1.47	104.28	0.014	1.47	0.0	0.0	8.758	A
C-A	18.94	18.94			18.94				
A-B	1.20	1.20			1.20				
A-C	43.91	43.91			43.91				

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	89.83	0.015	1.39	0.0	0.0	10.175	B
C-AB	1.47	1.47	104.28	0.014	1.47	0.0	0.0	8.754	A
C-A	18.94	18.94			18.94				
A-B	1.20	1.20			1.20				
A-C	43.91	43.91			43.91				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.39	1.39	89.83	0.015	1.39	0.0	0.0	10.175	B
C-AB	1.47	1.47	104.28	0.014	1.47	0.0	0.0	8.756	A
C-A	18.94	18.94			18.94				
A-B	1.20	1.20			1.20				
A-C	43.91	43.91			43.91				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	86.65	0.017	1.46	0.0	0.0	10.564	B
C-AB	2.98	2.98	146.85	0.020	2.96	0.0	0.0	6.923	A
C-A	38.40	38.40			38.40				
A-B	2.18	2.18			2.18				
A-C	54.06	54.06			54.06				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	86.65	0.017	1.46	0.0	0.0	10.564	B
C-AB	2.98	2.98	147.11	0.020	2.98	0.0	0.0	6.243	A
C-A	38.40	38.40			38.40				
A-B	2.18	2.18			2.18				
A-C	54.06	54.06			54.06				

08:30 - 08:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	86.65	0.017	1.46	0.0	0.0	10.564	B
C-AB	2.98	2.98	147.11	0.020	2.98	0.0	0.0	6.246	A
C-A	38.40	38.40			38.40				
A-B	2.18	2.18			2.18				
A-C	54.06	54.06			54.06				

08:45 - 09:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.46	1.46	86.65	0.017	1.46	0.0	0.0	10.564	B
C-AB	2.98	2.98	147.11	0.020	2.98	0.0	0.0	6.243	A
C-A	38.40	38.40			38.40				
A-B	2.18	2.18			2.18				
A-C	54.06	54.06			54.06				

09:00 - 09:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	91.98	0.018	1.65	0.0	0.0	9.963	A
C-AB	1.31	1.31	113.79	0.012	1.33	0.0	0.0	6.737	A
C-A	27.80	27.80			27.80				
A-B	0.98	0.98			0.98				
A-C	26.62	26.62			26.62				

09:15 - 09:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	91.98	0.018	1.65	0.0	0.0	9.962	A
C-AB	1.31	1.31	113.27	0.012	1.31	0.0	0.0	8.037	A
C-A	27.80	27.80			27.80				
A-B	0.98	0.98			0.98				
A-C	26.62	26.62			26.62				

09:30 - 09:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	91.98	0.018	1.65	0.0	0.0	9.962	A
C-AB	1.31	1.31	113.28	0.012	1.31	0.0	0.0	8.038	A
C-A	27.80	27.80			27.80				
A-B	0.98	0.98			0.98				
A-C	26.62	26.62			26.62				

09:45 - 10:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.65	1.65	91.98	0.018	1.65	0.0	0.0	9.962	A
C-AB	1.31	1.31	113.28	0.012	1.31	0.0	0.0	8.039	A
C-A	27.80	27.80			27.80				
A-B	0.98	0.98			0.98				
A-C	26.62	26.62			26.62				

10:00 - 10:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	93.82	0.014	1.36	0.0	0.0	9.735	A
C-AB	0.74	0.74	104.87	0.007	0.74	0.0	0.0	8.416	A
C-A	16.29	16.29			16.29				
A-B	0.62	0.62			0.62				
A-C	20.68	20.68			20.68				

10:15 - 10:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	93.82	0.014	1.35	0.0	0.0	9.734	A
C-AB	0.74	0.74	104.77	0.007	0.74	0.0	0.0	8.651	A
C-A	16.29	16.29			16.29				
A-B	0.62	0.62			0.62				
A-C	20.68	20.68			20.68				

10:30 - 10:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	93.82	0.014	1.35	0.0	0.0	9.732	A
C-AB	0.74	0.74	104.77	0.007	0.74	0.0	0.0	8.652	A
C-A	16.29	16.29			16.29				
A-B	0.62	0.62			0.62				
A-C	20.68	20.68			20.68				

10:45 - 11:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.35	1.35	93.82	0.014	1.35	0.0	0.0	9.732	A
C-AB	0.74	0.74	104.77	0.007	0.74	0.0	0.0	8.650	A
C-A	16.29	16.29			16.29				
A-B	0.62	0.62			0.62				
A-C	20.68	20.68			20.68				

11:00 - 11:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.14	0.013	1.21	0.0	0.0	9.686	A
C-AB	0.80	0.80	109.59	0.007	0.80	0.0	0.0	8.411	A
C-A	21.09	21.09			21.09				
A-B	0.65	0.65			0.65				
A-C	18.74	18.74			18.74				

11:15 - 11:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.14	0.013	1.21	0.0	0.0	9.684	A
C-AB	0.80	0.80	109.62	0.007	0.80	0.0	0.0	8.272	A
C-A	21.09	21.09			21.09				
A-B	0.65	0.65			0.65				
A-C	18.74	18.74			18.74				

11:30 - 11:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.14	0.013	1.21	0.0	0.0	9.684	A
C-AB	0.80	0.80	109.62	0.007	0.80	0.0	0.0	8.270	A
C-A	21.09	21.09			21.09				
A-B	0.65	0.65			0.65				
A-C	18.74	18.74			18.74				

11:45 - 12:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	94.14	0.013	1.21	0.0	0.0	9.684	A
C-AB	0.80	0.80	109.62	0.007	0.80	0.0	0.0	8.272	A
C-A	21.09	21.09			21.09				
A-B	0.65	0.65			0.65				
A-C	18.74	18.74			18.74				

12:00 - 12:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	92.99	0.013	1.21	0.0	0.0	9.806	A
C-AB	0.60	0.60	108.70	0.006	0.60	0.0	0.0	8.289	A
C-A	21.48	21.48			21.48				
A-B	0.48	0.48			0.48				
A-C	25.81	25.81			25.81				

12:15 - 12:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	92.99	0.013	1.21	0.0	0.0	9.806	A
C-AB	0.60	0.60	108.67	0.006	0.60	0.0	0.0	8.328	A
C-A	21.48	21.48			21.48				
A-B	0.48	0.48			0.48				
A-C	25.81	25.81			25.81				

12:30 - 12:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	92.99	0.013	1.21	0.0	0.0	9.806	A
C-AB	0.60	0.60	108.67	0.006	0.60	0.0	0.0	8.327	A
C-A	21.48	21.48			21.48				
A-B	0.48	0.48			0.48				
A-C	25.81	25.81			25.81				

12:45 - 13:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.21	1.21	92.99	0.013	1.21	0.0	0.0	9.806	A
C-AB	0.60	0.60	108.67	0.006	0.60	0.0	0.0	8.329	A
C-A	21.48	21.48			21.48				
A-B	0.48	0.48			0.48				
A-C	25.81	25.81			25.81				

13:00 - 13:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.34	0.018	1.68	0.0	0.0	9.927	A
C-AB	1.05	1.05	113.28	0.009	1.04	0.0	0.0	8.044	A
C-A	27.85	27.85			27.85				
A-B	0.79	0.79			0.79				
A-C	23.00	23.00			23.00				

13:15 - 13:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.34	0.018	1.69	0.0	0.0	9.927	A
C-AB	1.05	1.05	113.31	0.009	1.05	0.0	0.0	8.017	A
C-A	27.84	27.84			27.84				
A-B	0.79	0.79			0.79				
A-C	23.00	23.00			23.00				

13:30 - 13:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.34	0.018	1.69	0.0	0.0	9.927	A
C-AB	1.05	1.05	113.31	0.009	1.05	0.0	0.0	8.017	A
C-A	27.84	27.84			27.84				
A-B	0.79	0.79			0.79				
A-C	23.00	23.00			23.00				

13:45 - 14:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.69	1.69	92.34	0.018	1.69	0.0	0.0	9.927	A
C-AB	1.05	1.05	113.31	0.009	1.05	0.0	0.0	8.017	A
C-A	27.84	27.84			27.84				
A-B	0.79	0.79			0.79				
A-C	23.00	23.00			23.00				

14:00 - 14:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	92.69	0.019	1.79	0.0	0.0	9.900	A
C-AB	1.15	1.15	113.28	0.010	1.15	0.0	0.0	8.095	A
C-A	26.75	26.75			26.75				
A-B	0.87	0.87			0.87				
A-C	24.45	24.45			24.45				

14:15 - 14:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	92.69	0.019	1.80	0.0	0.0	9.900	A
C-AB	1.15	1.15	113.31	0.010	1.15	0.0	0.0	8.026	A
C-A	26.75	26.75			26.75				
A-B	0.87	0.87			0.87				
A-C	24.45	24.45			24.45				

14:30 - 14:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	92.69	0.019	1.80	0.0	0.0	9.900	A
C-AB	1.15	1.15	113.31	0.010	1.15	0.0	0.0	8.024	A
C-A	26.75	26.75			26.75				
A-B	0.87	0.87			0.87				
A-C	24.45	24.45			24.45				

14:45 - 15:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.80	1.80	92.69	0.019	1.80	0.0	0.0	9.900	A
C-AB	1.15	1.15	113.31	0.010	1.15	0.0	0.0	8.026	A
C-A	26.75	26.75			26.75				
A-B	0.87	0.87			0.87				
A-C	24.45	24.45			24.45				

15:00 - 15:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.11	0.013	1.19	0.0	0.0	10.010	B
C-AB	0.95	0.95	114.58	0.008	0.96	0.0	0.0	7.971	A
C-A	29.78	29.78			29.78				
A-B	0.70	0.70			0.70				
A-C	32.63	32.63			32.63				

15:15 - 15:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.11	0.013	1.18	0.0	0.0	10.007	B
C-AB	0.95	0.95	114.57	0.008	0.95	0.0	0.0	7.920	A
C-A	29.78	29.78			29.78				
A-B	0.70	0.70			0.70				
A-C	32.63	32.63			32.63				

15:30 - 15:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.11	0.013	1.18	0.0	0.0	10.007	B
C-AB	0.95	0.95	114.57	0.008	0.95	0.0	0.0	7.922	A
C-A	29.78	29.78			29.78				
A-B	0.70	0.70			0.70				
A-C	32.63	32.63			32.63				

15:45 - 16:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.18	1.18	91.11	0.013	1.18	0.0	0.0	10.007	B
C-AB	0.95	0.95	114.57	0.008	0.95	0.0	0.0	7.922	A
C-A	29.78	29.78			29.78				
A-B	0.70	0.70			0.70				
A-C	32.63	32.63			32.63				

16:00 - 16:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	127.83	0.030	3.83	0.0	0.0	7.991	A
C-AB	0.86	0.86	127.24	0.007	0.86	0.0	0.0	7.276	A
C-A	46.00	46.00			46.00				
A-B	0.54	0.54			0.54				
A-C	33.93	33.93			33.93				

16:15 - 16:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	128.02	0.030	3.86	0.0	0.0	7.250	A
C-AB	0.86	0.86	127.25	0.007	0.86	0.0	0.0	7.118	A
C-A	46.00	46.00			46.00				
A-B	0.54	0.54			0.54				
A-C	33.93	33.93			33.93				

16:30 - 16:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	128.02	0.030	3.85	0.0	0.0	7.247	A
C-AB	0.86	0.86	127.24	0.007	0.86	0.0	0.0	7.122	A
C-A	46.00	46.00			46.00				
A-B	0.54	0.54			0.54				
A-C	33.93	33.93			33.93				

16:45 - 17:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	3.85	3.85	128.02	0.030	3.85	0.0	0.0	7.247	A
C-AB	0.86	0.86	127.24	0.007	0.86	0.0	0.0	7.122	A
C-A	46.00	46.00			46.00				
A-B	0.54	0.54			0.54				
A-C	33.93	33.93			33.93				

17:00 - 17:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.78	0.015	1.34	0.0	0.0	7.779	A
C-AB	0.29	0.29	126.02	0.002	0.29	0.0	0.0	7.193	A
C-A	42.95	42.95			42.95				
A-B	0.19	0.19			0.19				
A-C	32.53	32.53			32.53				

17:15 - 17:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.15	0.015	1.32	0.0	0.0	10.018	B
C-AB	0.29	0.29	125.83	0.002	0.29	0.0	0.0	7.162	A
C-A	42.95	42.95			42.95				
A-B	0.19	0.19			0.19				
A-C	32.53	32.53			32.53				

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.15	0.015	1.32	0.0	0.0	10.018	B
C-AB	0.29	0.29	125.82	0.002	0.29	0.0	0.0	7.171	A
C-A	42.95	42.95			42.95				
A-B	0.19	0.19			0.19				
A-C	32.53	32.53			32.53				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	1.32	1.32	91.15	0.015	1.32	0.0	0.0	10.018	B
C-AB	0.29	0.29	125.82	0.002	0.29	0.0	0.0	7.168	A
C-A	42.95	42.95			42.95				
A-B	0.19	0.19			0.19				
A-C	32.53	32.53			32.53				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.19	0.004	0.39	0.0	0.0	9.700	A
C-AB	0.57	0.57	122.56	0.005	0.56	0.0	0.0	7.330	A
C-A	37.17	37.17			37.17				
A-B	0.39	0.39			0.39				
A-C	22.54	22.54			22.54				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.19	0.004	0.38	0.0	0.0	9.696	A
C-AB	0.57	0.57	122.60	0.005	0.57	0.0	0.0	7.375	A
C-A	37.16	37.16			37.16				
A-B	0.39	0.39			0.39				
A-C	22.54	22.54			22.54				

18:30 - 18:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.19	0.004	0.38	0.0	0.0	9.696	A
C-AB	0.57	0.57	122.60	0.005	0.57	0.0	0.0	7.376	A
C-A	37.16	37.16			37.16				
A-B	0.39	0.39			0.39				
A-C	22.54	22.54			22.54				

18:45 - 19:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0.38	0.38	93.19	0.004	0.38	0.0	0.0	9.696	A
C-AB	0.57	0.57	122.60	0.005	0.57	0.0	0.0	7.376	A
C-A	37.16	37.16			37.16				
A-B	0.39	0.39			0.39				
A-C	22.54	22.54			22.54				

Appendix E – Site Access

Existing access to be grassed and used as a soakway where required

Corner radius - 13m

STOP

L7081

100

95

0 1 5 10 20m

Notes:
1. Drawing not for construction.
2. Do Not Scale - use figured dimensions only.

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Client: QUARRY CONSULTING

Rev	Date	Drawn	Check	App.	Comments
1.0	15/10/2024	AMG	MAH	TAG	

Project: Proposed Sand Pit, Kilmeague, Co. Kildare

Drawing Title: Preliminary Design
General Arrangement

Scale:	Date:	Drawn:	Check:	Approved:
1:250 @ A1 1:500 @ A3	05/11/2024	AMG	MAH	TAG

Drawing No:	Suitability:	Revision:	Status:
P23023-PMCE-ZZ-01-DG-CR-3_0001	S0	2.0	Draft

Appendix F – Stage 1 Road Safety Audit

Quarry Consulting

Proposed Sand Pit, Kilmeague, Co. Kildare

Stage 1 Road Safety Audit

P·M·C·E

December 2024

Quarry Consulting

Proposed Sand Pit, Kilmeague, Co. Kildare

Stage 1 Road Safety Audit

Document Ref:	P23023-PMCE-XX-XX-RP-SA-3_0001

Rev	Prepared By	Reviewed By	Approved By	Issue Date	Reason for Revision
3.0	PJM	XY	PJM	6th Dec. 2024	Additional Information Supplied
2.0	XY	PJM	PJM	5th Nov. 2024	Final Report
1.0	XY	PJM	PJM	1st Nov. 2024	Draft Report

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T +353 (1) 464 3041
F +353 (1) 459 1836
info@pmceconsultants.com
www.pmceconsultants.com

Unit 17, Greenmount House
Greenmount Office Park
Harold's Cross, Dublin 6W
D6W VX78, Ireland

Table of Contents

1 Introduction

1.1 General

This report results from a Stage 1 Road Safety Audit on the proposed new access for a Sand Pit at Kilmeague, Co. Kildare carried out at the request of Mr Peter Kinghan of Quarry Consulting.

The members of the Road Safety Audit Team are independent of the design team, and include: -

Mr. Peter Monahan
(BE, MSc, CEng, FIEI, RSACert)
Road Safety Audit Team Leader

Ms. Xue Yan
(BEng, MSc, MIEI)
Road Safety Audit Team Member

The Road Safety Audit took place during October 2024 and comprised an examination of the documents provided by the designers (see Appendix A). In addition to examining the documents supplied the Road Safety Audit Team visited the site of the proposed measures on the 23rd October 2024. Weather conditions during the site visit were wet and the road surface was wet. Traffic volumes during the site visit were high, pedestrian and cyclist volumes were low and traffic speeds were considered to be above the posted speed limit.

Where problems are relevant to specific locations these are shown on drawing extracts within the main body of the report and their locations are shown in Appendix B. Where problems are general to the proposals sample drawing extracts are within the main body of the report, where considered necessary.

This Stage 1 Road Safety Audit has been carried out in accordance with the requirements of GE-STY-01024 - Road Safety Audit (December 2017), contained on the Transport Infrastructure Ireland (TII) Publications website.

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety and considers the perspective of all road users. It has not been examined or verified for compliance with any other standards or criteria. The problems identified in this report are considered to require action in order to improve the safety of the scheme and minimise collision occurrence.

If any of the recommendations within this road safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observations are intended to be for information only. Written responses to Observations are not required.

2 Project Description

The proposed scheme would consist of the provision of an amended access to a sand and gravel pit from the L7081 Local Road in Kilmeague, Co. Kildare.

The L7081 Local Road is an unlit two-way single carriageway in approximately 8m in width, comprising two traffic lanes in each direction of travel, with a posted speed limit of 80kph in the vicinity of the access and without footpaths or cycle lanes. It extends in a southwest-northeast direction between Prosperous in the northeast and Kilmeague in the southwest.

It has a posted speed limit of 80kph for eastbound traffic and 50kph for westbound driver towards Kimeague.

FIGURE 2.1: LOCATION PLAN (SOURCE: WWW.OPENSTREETMAP.ORG)

The proposed measures would include relocating and widening the access to better accommodate HGVs entering and exiting, providing a grass verge where the existing access is located and providing a timber post and tension mesh fence along the boundary of the proposed access.

3 Items Arising from the Audit

3.1 High Speeds on the L7081

Location: *P23023-PMCE-ZZ-01-DG-CR-3_0001 (Rev 1.0)*

Summary: *Existing speeds on the L7081 could make it difficult for HGV egress from the site.*

At the time of site visit the Audit Team noted that the L7081 Local Road has relatively high volumes of traffic, with some vehicles travelling above the posted speed limit, which is reflected in the traffic survey data provided.

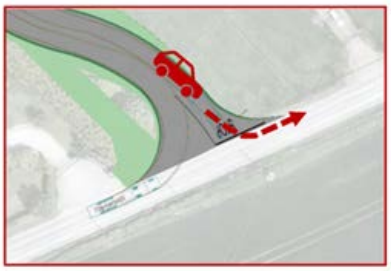
The L7081 includes a relatively straight alignment with downhill gradients approaching the proposed access from both directions, possibly leading to unintended acceleration. The visibility splay proposed are appropriate for a design speed of 85kph, but may be insufficient for the prevailing highest speeds recorded, in particular when considering slow-moving heavy vehicles entering and exiting the proposed new access, increasing the risk of possible side-on collisions.

Recommendation

Provide measures to encourage drivers to observe the posted speed limit and provide signs on the L7081 advising approaching drivers of the upcoming entrance and to expect slow-moving large vehicles entering/exiting.

4 Observations

4.1 Inconsistency of the carriageway width was noted between the drawing P23023-PMCE-ZZ-01-DG-CR-3_0007 (Rev 1.0).and the drawing P23023-PMCE-ZZ-01-DG-CR-3_0001 (Rev 1.0). Ensure that the width of carriageway is clearly shown and consistent throughout the design drawings.



4.2 The swept path of entering Heavy Good Vehicle (HGV) has been indicated. However, it is unclear if exiting left-turning HGV's can complete the manoeuvre without encroaching into the opposing traffic lane.

A swept path analysis should be undertaken for vehicles exiting from the proposed new access to confirm this manoeuvre can be completed safely.

5 Audit Team Statement

We certify that we have examined the drawings referred to in this report. The examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme.

The problems identified have been noted in this report together with associated safety improvement suggestions, which we would recommend should be studied for implementation.

No one on the Road Safety Audit Team has been involved with the design of the scheme.

ROAD SAFETY AUDIT TEAM LEADER

Peter Monahan Signed: Peter J. Monahan

Dated: 6th Dec. 2024

ROAD SAFETY AUDIT TEAM MEMBER

Xue Yan Signed: Xue Yan

Dated: 6th Dec. 2024

6 Road Safety Audit Feedback Form

Road Safety Audit Feedback Form

Scheme: Proposed Sand Pit, Kilmeague, Co. Kildare

Route No.: L7081 Local Road

Audit Stage: 1 **Date Audit Completed:** 30th Oct 2024

	To be Completed by Designer			To be Completed by Audit Team Leader
Paragraph No. in Safety Audit Report	**Problem Accepted (Yes/No)**	**Recommended Measure(s) Accepted (Yes/No)**	**Describe Alternative Measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted**	**Alternative Measures or Reasons Accepted by Auditors (Yes/No)**
3.1	Yes	Yes		

Signed: _____ Designer **Date** 5th Nov. 2024

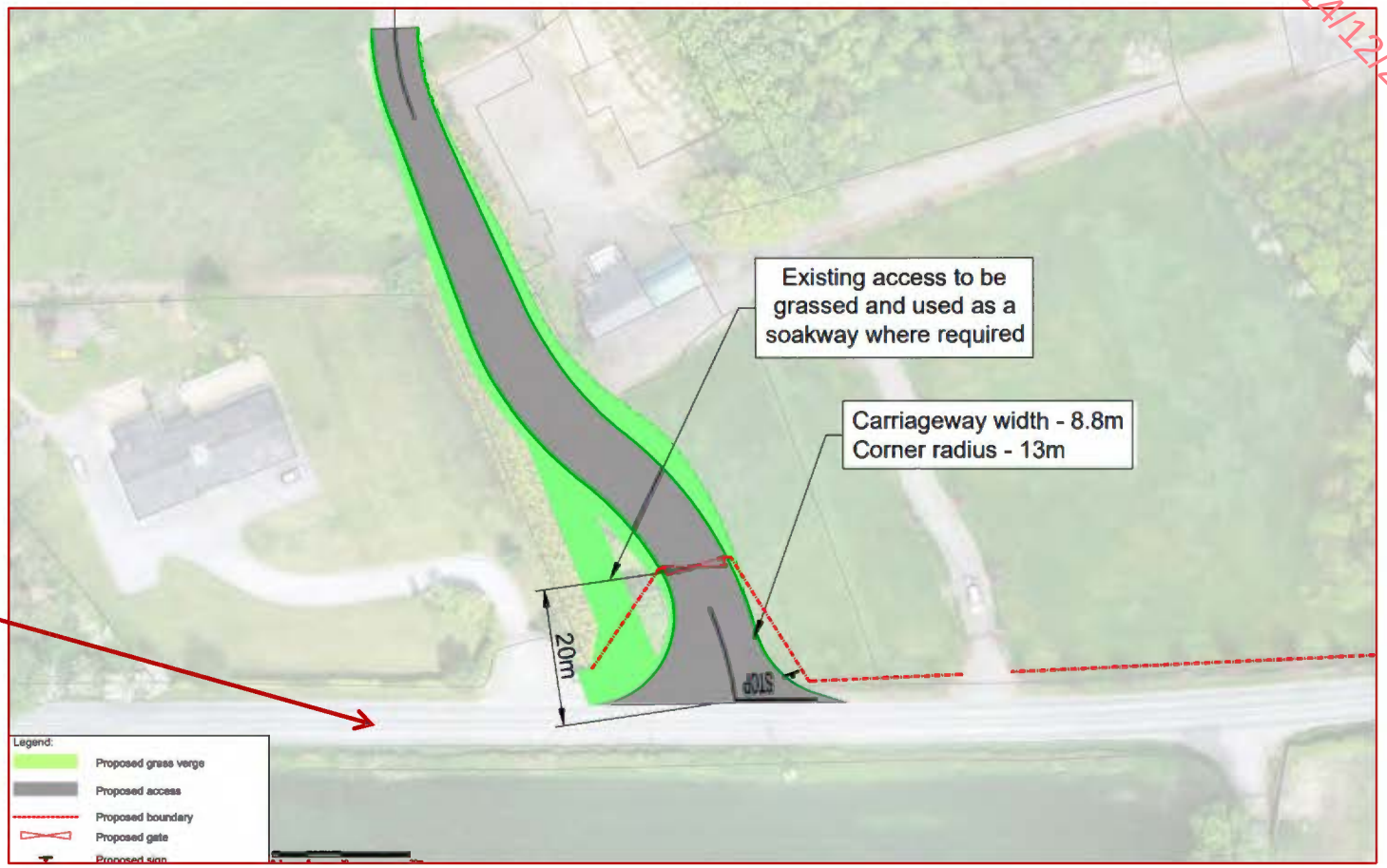
Signed: Peter J. Monaghan Audit Team Leader **Date** 5th Nov. 2024

Signed: _____ Employer **Date** _____

Appendix A - Documents Submitted to the Road Safety Audit Team

DOCUMENT/DRAWING TITLE	DOCUMENT/DRAWING NO.	REVISION
General Arrangement	P23023-PMCE-ZZ-01-DG-CR-3_0001	1.0
Plan and Profile	P23023-PMCE-ZZ-01-DG-CR-3_0002	1.0
Signs and Road Markings	P23023-PMCE-ZZ-01-DG-CR-3_0003	1.0
Visibility Splay	P23023-PMCE-ZZ-01-DG-CR-3_0004	1.0
Existing and Proposed Utilities	P23023-PMCE-ZZ-01-DG-CR-3_0005	1.0
Boundary Treatment	P23023-PMCE-ZZ-01-DG-CR-3_0006	1.0
Typical Cross Sections	P23023-PMCE-ZZ-01-DG-CR-3_0007	1.0
Swept Path Analysis	P23023-PMCE-ZZ-01-DG-CR-3_0008	1.0
Drawings Provided for Information Purposes		
Proposed Site Layout	Drawing FI 2	-

Appendix B – Problem Locations



Problem 3.1

Appendix G – L7081 Structural Evaluation and Pavement Investigation

Structural Evaluation of the L-7081 Kilmeague Co. Kildare

PMCE Consultants

September 2024

24/171

Document Control Sheet

Client	PMCE Consultants					
Project Title	Structural Evaluation of the L-7081 Kilmeague Co. Kildare					
Document Title	Falling Weight Deflectometer – Level 1 Report					
Project Ref.	PE24F133					
This Document Comprises	**DCS**	**TOC**	**Text**	**Tables**	**Figures**	**Appendices**
	1	1	5	5	0	4

Amendment Record

This report has been amended and issued as follows:

Revision	Description	Compiled by	Issue Date
1.0	Issue	Emmet O Driscoll	25-09-2024

Approved Signatory	Monica Loughnane	Project Engineer	Monica Loughnane

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Pavement Management Services Ltd.

Raheen Industrial Estate, Athenry, Co. Galway, H65 PD37
T: +353 (0)91 - 877040 | E: info@pms.ie | W: www.pms.ie

Table of Contents

List of Tables

1. Introduction

PMS Pavement Management Services Ltd. (PMS) were appointed by PMCE Consultants to carry out a structural evaluation of the L-7081 Kilmeague Co. Kildare in September 2024. The structural evaluation of the existing pavement construction was completed with a Falling Weight Deflectometer (FWD) survey.

The FWD survey was carried out in accordance with **CC-GSW-04008** *'Guidelines for the use of the Falling Weight Deflectometer in Ireland (2000)'* and **AM-PAV-06050** *'Pavement Assessment, Repair and Renewal Principles (March 2020)'*. PMS is accredited by the Irish National Accreditation Board (INAB) for pavement structural evaluation using FWD in accordance with **CC-GSW-04008**, under our scope of accreditation (Registration number: 230T).

Details of the pavement sections surveyed are given in **Table 1**.

Section		No. Lanes Surveyed	True Direction	Test Interval (m)	Survey Length (m)
1	L-7081 Kilmeague	2	EB	5	120

Table 1: Details of Sections Tested

This report describes the structural evaluation methodology and presents the principal deflection results.

2. Structural Evaluation Methodology

2.1. Description of FWD

A Dynatest Model 8000 Series FWD was used to carry out the structural evaluation. In FWD testing, a known load is applied to the pavement and the actual deflections at given distances from the centre of the load plate are measured. The deflected shape of the surface, generated by an FWD impact load depends upon the type, thickness and condition of the construction layers.

There is a deflection-measuring sensor built into the centre of the load plate to measure the central deflection (D1), and a series of further sensors measure pavement deflections at radial distances from the load application. In Ireland, the standard setup is to space the sensors at 300mm intervals; (D1 to D7) at 0, 300, 600, 900, 1200, 1500 and 1800mm from the centre of the load plate.

2.2. Output Parameters

The principal output deflection parameters from the FWD survey are the central deflection (D1), the Surface Curvature Index (SCI) and the outer deflection (D7).

D1 provides an indication of the overall pavement structural condition. Lower D1 results are more desirable from a structural viewpoint, with higher D1 results indicating a poor structural condition.

The SCI is calculated as the difference between the D1 and the D2 deflection readings. High SCI readings would generally indicate poor load spreading ability in the upper pavement layers. *The Department of Transport, Tourism and Sport (DTTAS) document* ***'Guidelines on the Depth of Overlay to be used on Rural Regional and Local Roads'*** states that SCI values more than 250 microns (normalised to 40kN) indicate poor load-spreading ability in the upper pavement layers and are not suitable for bituminous only overlays, as there is a higher risk of premature cracking.

The D7 sensor measures the deflection at 1800mm from the centre of the load plate. At this distance, the influence of the upper pavement layers is negligible and consequently the D7 sensor gives a good indication of the deflection attributable solely to the subgrade layer, at a depth of approximately 2 metres. Higher D7 readings indicate weaker subgrade strengths.

Table 2 shows typical ranges of the D1 deflection results and their associated descriptions for Local roads in Ireland. **Table 3** and **4** show typical ranges for SCI and D7 deflections and their associated descriptions for roads in Ireland.

D1 Description	Local Road (microns)
Good	< 300
Good to Poor	300 to 500
Poor to Bad	500 to 800
Bad	> 800

Table 2: Categorisation of D1 Deflection Results

Upper Pavement Description	SCI (microns)
Good	< 150
Good to Poor	150 to 250
Poor to Bad	250 to 400
Bad	> 400

Table 3: Categorisation of SCI Results

Subgrade Description	D7 (microns)
Stiff	< 15
Stiff to Moderate	15 to 30
Moderate to Weak	30 to 45
Weak	> 45

Table 4: Categorisation of D7 Deflection Results

3. Survey Results

The D1, SCI and D7 deflection results are presented in both tabular and graphical format.

The section is subdivided into homogenous segments based on changes in deflection response and pavement structure (if known). **Table 5** presents the average D1, SCI and D7 results for each segment. A classification of the average deflection results for each segment is also given in Table 5, based on the typical deflection ranges shown in Tables 2, 3 and 4.

Appendix A contains deflection charts of the D1, SCI and D7 deflection results plotted against chainage for the sections surveyed.

Appendix B contains the tabulated D1, SCI and D7 results for all test locations on each section. In all cases, the lowest deflection results are the best from a structural viewpoint. Each test location is referenced to linear chainage and Irish Grid co-ordinate systems.

Appendix C contains site operator notes with physical identifiers recorded along the length of the section at the time of testing.

Appendix D contains a site map showing the test locations and extents of the section.

	Section	Lane	Chainage (m)	Road Classification	Average D1 (microns)	Description	Average SCI (microns)	Description	Average D7 (microns)	Description
1	L-7081 Kilmeague	EB	0 - 50	Local	271	Good	109	Good	10	Stiff
			50 - 100		367	Good to Poor	126	Good	30	Moderate to Weak
		WB	20 - 55		307	Good to Poor	111	Good	12	Stiff
			55 - 120		312	Good to Poor	110	Good	24	Stiff to Moderate

Table 5: Homogenous Segment Categorisation

Appendix A – Deflection Charts

L-7081 Kilmeague

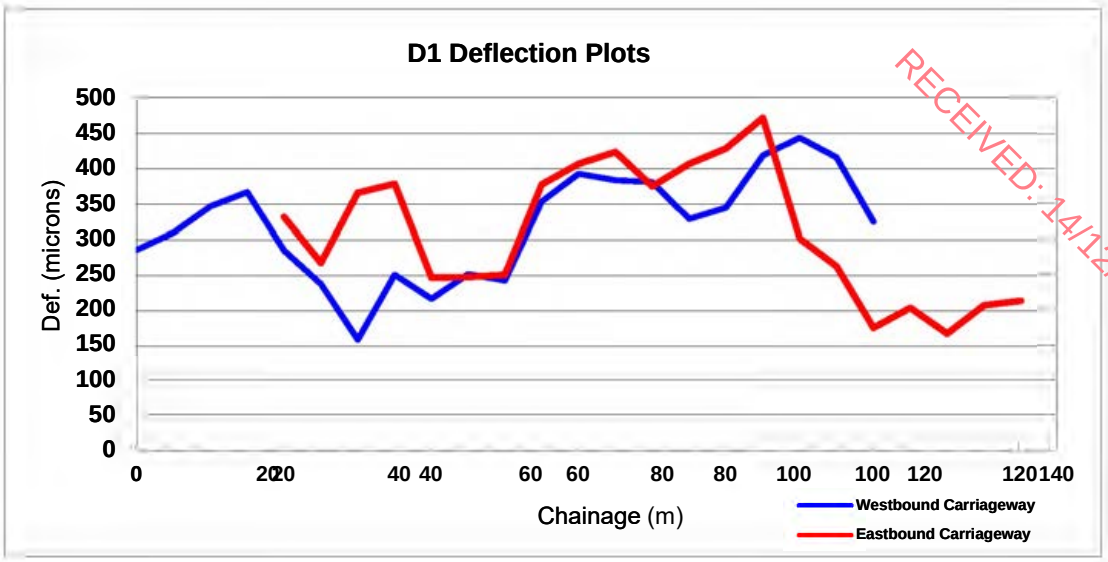


Figure 1: D1 Deflection Plots

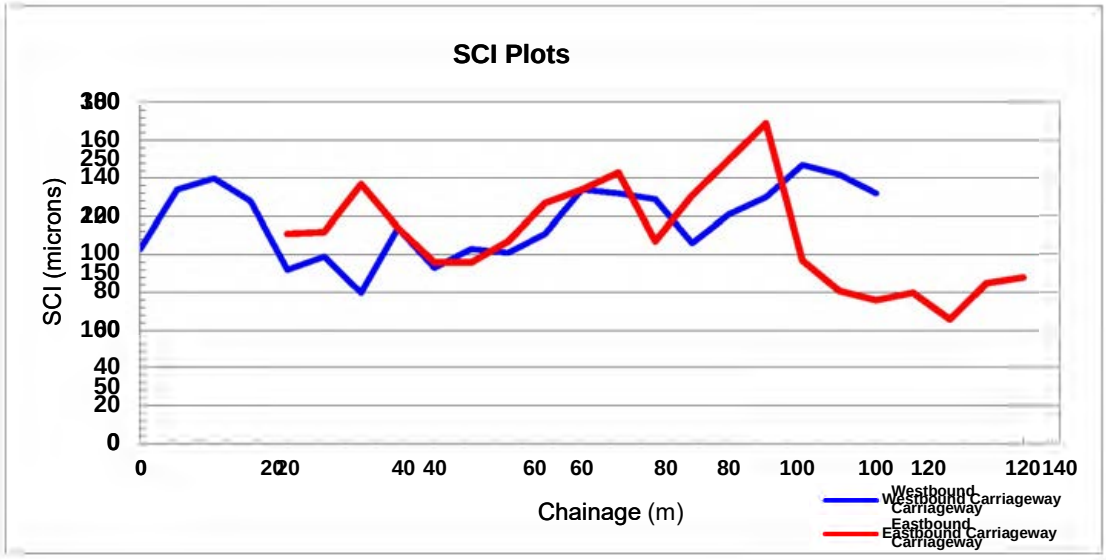


Figure 2: SCI Plots

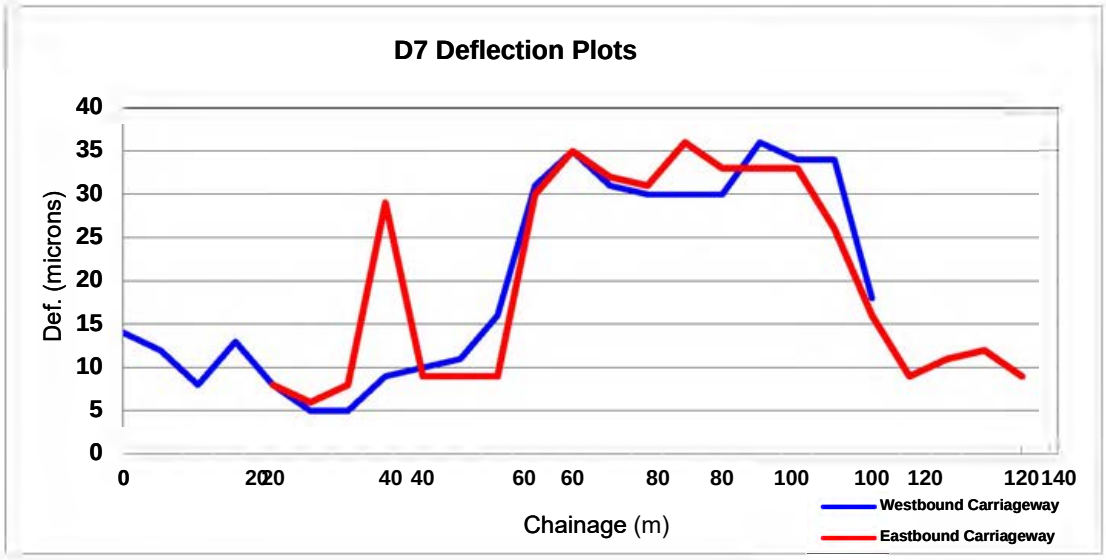


Figure 3: D7 Deflection Plots

Appendix B – Tabulated Deflection Results

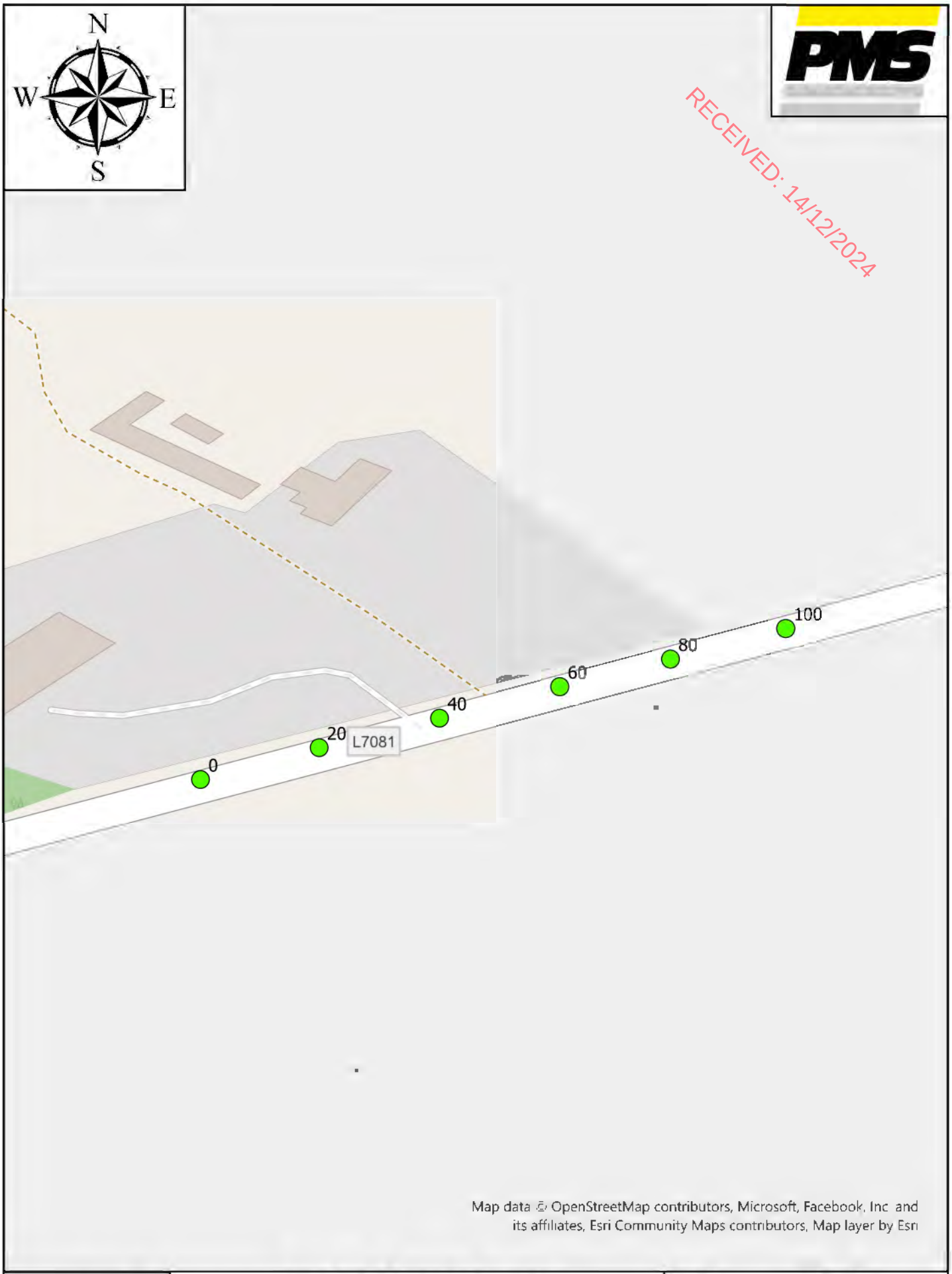
L-7081 Kilmeague					
Westbound Carriageway					
Chainage	D1(40)	SCI	D7	Irish Grid	
(metres)	(microns)	(microns)	(microns)	Easting	Northing
0	286	103	14	223293	678637
5	310	134	12	223295	678642
10	347	140	8	223297	678646
15	367	128	13	223300	678652
20	285	92	8	223301	678655
25	238	99	5	223304	678661
30	159	80	5	223305	678665
35	251	114	9	223307	678669
40	217	93	10	223309	678674
45	252	103	11	223311	678679
50	243	101	16	223314	678684
55	354	111	31	223315	678687
60	393	134	35	223318	678693
65	384	132	31	223319	678696
70	381	129	30	223321	678701
75	329	106	30	223323	678705
80	345	121	30	223325	678710
85	419	130	36	223328	678716
90	444	147	34	223330	678720
95	416	142	34	223332	678724
100	325	132	18	223334	678728

L-7081 Kilmeague					
Eastbound Carriageway					
Chainage	D1(40)	SCI	D7	Irish Grid	
(metres)	(microns)	(microns)	(microns)	Easting	Northing
20	332	111	8	223299	678659
25	268	112	6	223301	678664
30	366	137	8	223303	678668
35	379	114	29	223305	678672
40	247	96	9	223307	678677
45	248	96	9	223309	678682
50	251	107	9	223311	678687
55	378	127	30	223313	678691
60	407	134	35	223315	678696
65	424	143	32	223317	678700
70	375	107	31	223319	678705
75	407	131	36	223321	678710
80	429	150	33	223324	678714
85	472	169	33	223326	678718
90	302	97	33	223328	678723
95	263	81	26	223330	678728
100	176	76	16	223331	678731
105	204	80	9	223334	678737
110	168	66	11	223336	678741
115	208	85	12	223339	678746
120	214	88	9	223341	678750

Appendix C – Operator Notes

Section		Lane	Chainage (m)	Physical Identifier	Irish Grid	
					Easting	Northing
1	L-7081 Kilmeague	EB	0	*Start at Coordinates*	223293	678637
			100	*End at Coordinates*	223334	678728

Appendix D – Site Maps



Legend

FWD_GPS

PMCE Consultants

FWD Survey September 2024

Section:	L-7081 Kilmeague
Lane:	EB
Filename:	PE24F133
Date Tested:	16/09/2024

Structural Evaluation and Pavement Investigation of the L-7081 Kilmeague Co. Kildare

PMCE Consultants

October 2024

24/171

Document Control Sheet

Client	PMCE Consultants					
Project Title	Structural Evaluation and Pavement Investigation of the L-7081 Kilmeague Co. Kildare					
Document Title	Falling Weight Deflectometer – Level 2 Report					
Project Ref.	PE24F133					
This Document Comprises	**DCS**	**TOC**	**Text**	**Tables**	**Figures**	**Appendices**
	1	1	6	5	0	1

Amendment Record

This report has been amended and issued as follows:

Revision	Description	Compiled by	Issue Date
1.0	Issue	Monica Loughnane	14-10-2024

Approved Signatory	Monica Loughnane	Project Engineer	Monica Loughnane

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Pavement Management Services Ltd.

Raheen Industrial Estate, Athenry, Co. Galway, H65 PD37
T: +353 (0)91 - 877040 | E: info@pms.ie | W: www.pms.ie

Table of Contents

List of Tables

1. Introduction

PMS Pavement Management Services Ltd. (PMS) were appointed by PMCE Consultants to carry out a structural evaluation and pavement investigation of the L-7081 Kilmeague Co. Kildare in September 2024.

A programme of pavement testing was carried out comprising a Falling Weight Deflectometer (FWD) survey and pavement coring.

The structural evaluation was carried out in accordance with **CC-GSW-04008** *'Guidelines for the use of the Falling Weight Deflectometer in Ireland (2000)'* and **AM-PAV-06050 (HD31/15)** *'Pavement Design and Maintenance – Pavement Maintenance Assessment and Renewal Principles (March 2020)'*.

A FWD Level 1 Report titled *'PE24F133- PMCE Consultants L7081 Kilmeague FWD Analysis Report 2024'* containing the central deflection (D1), Surface Curvature Index (SCI) and outer deflection (D7) results was issued to PMCE Consultants in September 2024.

Details of the pavement section surveyed are given in **Table 1**.

Section		No. Lanes Surveyed	True Direction	Test Interval (m)	Survey Length (m)
1	L-7081 Kilmeague	2	EB	5	120

**test locations staggered in adjacent lanes*

Table 1: Details of Sections Tested

The objective of this report is to provide the client with the required minimum structural strengthening options based on a 20-year design life for the section.

2. Existing Pavement Construction

Pavement coring was carried out by PMS to determine the existing pavement layer thicknesses and material types. The graphical and tabulated results from the pavement coring survey are included in **Appendix A.**

3. Structural Design Methodology

3.1. Back-calculation of Layer Moduli

In FWD testing, a known load is applied to the pavement and the actual deflections at given distances from the centre of the load plate are measured. The deflected shape of the surface, generated by a FWD impact load depends upon the type, thickness and condition of the construction layers.

A “Back-calculation” process is used to estimate pavement layer moduli. Computer programs using linear elastic multi-layered analysis can be used to model the pavement structure. This back-calculation process is based on a mathematical model of the pavement structure which predicts the surface deflection under a given applied load. An iterative procedure is used to match the computed deflections to the measured values. The layer stiffness’s are adjusted in this process until a match is obtained. The following criteria was used:

- The pavement structure was modelled as a number of horizontally infinite linear elastic layers.
- The elastic multi-layer analysis is based on Burmister’s equations with all layers modelled linearly including an infinite depth subgrade and no slip between layers.
- Two or three independent layers were modelled.
- The results from seven deflection sensors were used.
- The computed surface deflection values can be reported.
- The minimum thickness of any single layer is 75mm.
- The maximum number of independent layers (including subgrade) is three.
- Asphalt layers are combined and modelled as a single layer.
- Concrete layers were combined and modelled as a single layer.

3.2. Application of Analytical Design Methods

The back-calculation procedure was used to obtain the pavement layer moduli from multilayer elastic analysis. For the purposes of back-calculation, an appropriate upper bituminous layer thickness of 125mm was selected based on pavement coring information for each segment. In the absence of any granular layer thickness information from GPR, DCP or directly received from the client, an effective upper granular layer thickness of 150mm was assumed, based on similar pavement segments found in Ireland.

The analysis for each design segment was based on the 85th percentile level as stated in **AM-PAV-06050 (HD31/15).** The 85th percentile of D1 deflection is the value below which 85 percent of all D1 deflections in the segment fall.

The temperature-adjusted moduli of the upper layers, and subgrade moduli for that deflection level were selected as the design values. These values allow characterisation of the existing pavement to determine its current bearing capacity and also form the basis of the pavement characterisation for pavement overlay or inlay design.

Section		Lane	Chainage (m)	Pavement Temp. (°C)	Bit. Layer Moduli (MPa)	Temp. Corrected Bit. Layer Moduli (MPa)	Sub-base Moduli (MPa)	Subgrade Moduli (MPa)
1	L-7081 Kilmeague	EB	0 - 50	16.1	3371	2796	400	146
			50 - 100	16.1	4151	3443	400	99
		WB	20 - 55	16.1	3371	2796	400	146
			55 - 120	16.1	4151	3443	400	99

Table 2: Pavement Moduli

3.3. Overlay Design Models

The pavement performance models used are the **TRL LR 1132** *'The Structural Design of Bituminous Roads'* models for overlay fatigue and subgrade deformation, as per the guidance in **AM-PAV-06050**. The output from the models is the number of standard axles that the pavement is anticipated to withstand before failing structurally due to either excessive rutting caused by subgrade failure or by cracking of the bituminous layers induced by fatigue of the upper layers. If the number of axles to failure for the existing pavement is less than that desired (i.e. if the strains are excessively high), then an overlay/inlay can be designed to reduce the critical strains to the appropriate design level.

A pavement model consisting of the 85th percentile stiffness values for the existing pavement layers was set up for each segment. Calculation of the maximum tensile strain at the bottom of the combined bituminous layers and maximum compressive strain at the top of the subgrade/capping layer was carried out for each segment.

4. Structural Pavement Strengthening Options

4.1. Design Traffic

The estimated design traffic requirement is based on the **PE-SMG-02002 (HD 24/06)** *'Traffic Assessment'* method. The design traffic for each section was derived from commercial vehicle flow information for opening year (2024) with quarry traffic provided by PMCE Consultants.

Table 3 shows the cumulative number of commercial vehicle category, Annual Average Daily Flow (AADF) and design traffic expressed in million standard axles (msa).

Section		Commercial Vehicle Category	AADF	Design Traffic (msa)
1	L-7081 Kilmeague	OGV1 + PSV	25	0.119
		OGV2	150	4.172
				4.292

Table 3: Traffic Design Parameters

4.2. Overlay Requirements

The 20-year overlay design life requirements for each design segment are shown in **Table 4**. The overlay requirements for the design sections were calculated in accordance with the National Roads models (85th percentile failure curve). If a hot-mix bituminous overlay is not suitable (as explained in Section 5) then a granular overlay, or a composite overlay comprising hot-mix bituminous material over granular material, is typically recommended so that a suitable base for laying of hot-mix layers is provided.

Section		Design Model	Lane	Chainage (m)	SCI (microns)	Hot-mix Bit. Thickness (mm)
1	L-7081 Kilmeague	National	EB	0 - 50	109	50
				50 - 100	126	75
			WB	20 - 55	111	50
				55 - 120	110	75

Table 4: Overlay Requirements by Segment

4.3. Inlay Requirements

The 20-year inlay design life requirements for each design segment are shown in **Table 5**. The inlay design consisted of the removal of a depth of existing pavement material and replacement with hot-mix bituminous material or composite comprising of a hot-mix bituminous material over granular material. The inlay requirements for each design section were calculated in accordance with the National Roads models (85th percentile failure curve). If a hot-mix only inlay is not suitable (as explained in Section 5), then a composite inlay is typically recommended so that a suitable base for laying of hot-mix layers is provided.

Section		Design Model	Lane	Chainage (m)	SCI (microns)	Inlay Type	Depth to Remove (mm)	Inlay Thickness (mm)
1	L-7081 Kilmeague	National	EB	0 - 50	109	Composite	350	200 over 150
				50 - 100	126	Composite	375	225 over 150
			WB	20 - 55	111	Composite	350	200 over 150
				55 - 120	110	Composite	375	225 over 150

Table 5: Inlay Requirements by Segment

5. Summary of Analysis and Results

Multiple pavement strengthening options were examined for the section, as per the Client's request. For segments where two or more design options are presented, the Client may choose the design most suitable for their requirements taking the material properties, durability, cost and availability etc. into account. The selection criteria and implications of each of the design options are described below.

5.1. Hot Mix Bituminous Overlay

A hot-mix bituminous overlay was investigated for all sections.

5.2. Hot Mix Bituminous Inlay

A hot-mix bituminous inlay was investigated for all sections. However for a number of segments when the required depth of material had been removed along this section, the remaining pavement layers will not have sufficient bearing capacity and load spreading capability to support a hot-mix only inlay. Therefore a composite inlay design was carried out.

5.3. Composite Inlay

The composite inlay design was carried out based upon a layer of bituminous material over a layer of granular. The granular material provides the load spreading characteristics lacking in the remaining existing pavement.

5.4. Selection and Design of Pavement Materials

Further information and guidance in relation to the selection and design of suitable bituminous and granular materials to be installed in the works are outlined in the following TII Publications:

- DN-PAV-03024 (HD37)
- DN-PAV-03074 (HD300)
- CC-SPW-00800 (Series 800)
- CC-SPW-00900 (Series 900)

Appendix A – Pavement Coring Results

CORE LOG

Client:	PMCE Consultants	Project No:	PE24F133
Road No:	L7081	Date Cored:	16/09/2024
Section:	Kilmeague	Direction:	WB
		Procedure Used:	EN12697-36: 2022 - Clause 4.1

Pavement Management Services Ltd.

Layer No.	Top (mm)	Bottom (mm)	Thickness (mm)	Material	Layer Condition	
1	0	5	5	SD		
2	5	50	45	HRA		
3	50	90	40	AC		
4	90	115	25	AC		
5	115	125	10	SD		
6	125	170	45	WCG		

Additional Comments:

Key: HRA= Hot Rolled Asphalt; AC= Asphaltic Concrete; SMA= Stone Mastic Asphalt; SD= Surface Dressing; HBM= Hydraulically Bound Material; WCG= Well Compacted Granular; DBM= Dense Bitumen Macadam; LMC= Lean Mix Concrete; PQC= Pavement Quality Concrete; MS= Micro-Surfacing; HDM= Heavy Duty Macadam; HFS=High Friction Surface.
Key: LWP= Left Wheel Path; Centre = Centre of the Lane; RWP= Right Wheel Path; HS= Hard Shoulder

HTSF504, Rev5, 19022024

Core No:	1	Chainage (m):	70
Core Diameter (mm):	150	Core Depth (mm):	170
Easting:	278771	Wheelpath:	LHWP
Northing:	223319		
Operator:	JN	Date Measured:	13/10/2024

Appendix H – Consultation with the Local Authority

Date: 18/10/2024 14:38:42
From: Cyril Buggie <Cbuggie@kildarecoco.ie>
To: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>; George Willoughby <gwilloughby@kildarecoco.ie>;
CC: Aly Gleeson <aly.gleeson@pmceconsultants.com>; Mark Evans <Mevans@kildarecoco.ie>;
Subject: RE: Proposed Sand Pit, Kilmeague, Co. Kildare
Attachments: ~WRD2053.jpg; image001.png; image002.png; image003.png; Proposed Haulage Routes Sand and and Gravel Pit at Kilmeague.pdf;

Hi George,

Can you look at the attached and reply from a roads planning point of view.

The Clane Maynooth MD have no objection in relation to the proposed route in our MD. However I can not speak for other MD's.

Regards
Cyril

From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Sent: Tuesday 1 October 2024 21:21
To: Cyril Buggie <Cbuggie@kildarecoco.ie>
Cc: Aly Gleeson <aly.gleeson@pmceconsultants.com>; Mark Evans <Mevans@kildarecoco.ie>
Subject: RE: Proposed Sand Pit, Kilmeague, Co. Kildare

Hello Cyril,

Thank you very much for responding to my email in relation to the proposed Sand Pit in Kilmeague, Co. Kildare.

In relation to the development (see planning reference 24/60202), the Council's RFI asked that the Applicant detail all haul routes to and from the application site to the M7 Motorway, and to the R403 Regional Road (Prosperous Road) and other potential destination sites. This information was requested to address Planning Authority concerns relating to weight restrictions and bridges in the surrounding area, as noted below:

The Applicant is requested to omit a haul route to Allenwood via the R415 Regional Road due to the number of canal and river bridge crossings on that route or a haul route via Robertstown.

There is an existing 7.50 tonne limit on the L-7085 local road from the R415 / L-7081 / L-7085 junction at Kilmeague so NO TRIPS can be generated by HGV traffic along this road.

The railway crossings in Kildare Town, Moore's Bridge over the rail line in the Curragh and canal bridge at Milltown. The Planning Authority is not in favour of a haul route via the centres of Kildare Town or Newbridge Town.

The revised estimates of trips generated on the requested haul routes having consideration to the foregoing.

The Applicant is requested to liaise with Waterways Ireland and CIE in respect of the foregoing.'

In response to the above request, please see the attached plan that illustrates the suggested haul routes to/from the proposed Sand and Gravel Pit at Kilmeague, the M7 Motorway and the R403, which satisfy the constraints outlined by the Local Authority.

Can you please confirm that the suggested routes meet the Local Authority's expectations, as stipulated in a), b) and c) above. Once confirmed, I will revise the estimated trips in our Traffic and Transport Assessment, thereby addressing item d) above. Subsequently, I will liaise with Waterways Ireland and CIE to address item e).

If you require further information, please feel free to get in touch.

Many Thanks

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

P·M·C·E CONSULTANTS
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Unit 17, Greenmount House,
Greenmount Office Park,
Harold's Cross Road, Dublin 6W
D6W VX78,
Ireland.

T +353 (1) 464 3041 **F** +353 (1) 459 1836 **W** http://www.pmceconsultants.com/

MEMBER OF ACEI

From: Cyril Buggie <Cbuggie@kildarecoco.ie>
Sent: Monday 30 September 2024 14:32
To: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Cc: Mark Evans <Mevans@kildarecoco.ie>; Aly Gleeson <aly.gleeson@pmceconsultants.com>
Subject: FW: Proposed Sand Pit, Kilmeague, Co. Kildare

Hi Antonis,

Please submit the relevant details to me and I will review them and revert back with comments.

Regards,
Cyril Buggie

Innealtóir | Comhairle Contae Chill Dara |Oifig Bhardasacha Ceantar Claonadh Maigh Nuad | Sráid Chúige Laighean | Maigh Nuad, Co. Chill Dara.

Engineer | Kildare County Council | Clane Maynooth Municipal District Office | Leinster Street | Maynooth | Co. Kildare.

t: + 353 1 628 6236 | e: cbuggie@kildarecoco.ie | web: www.kildare.ie | Eircode: W23 H2T3

From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Sent: Thursday 26 September 2024 17:09
To: TransportAdmin <transportadmin@kildarecoco.ie>
Cc: Aly Gleeson <aly.gleeson@pmceconsultants.com>
Subject: Proposed Sand Pit, Kilmeague, Co. Kildare

Hello,

My name is Antonis Papadakis and I am contacting you on behalf of PMCE. We are working with Quarry Consulting on a planning application for a new Sand & Gravel Pit in Kilmeague, Co. Kildare (planning reference 24/60202) located on the L7081 Local Road (for exact location please find a link here).

We are seeking to consult the Local Area Engineer/District Engineer in relation to a request for further information relevant to haul routes to/from the application site?

Would it be possible to provide contact details to the Local Area Engineer/District Engineer?

Many Thanks

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

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https://scanner.topsec.com/?d=1340&r=show&u=https%3A%2F%2Fkildarecoco.ie%2FYourCouncil%2FGovernanceandCompliance%2FDataProtection%2F&t=9049ce10de41f63072c1541f7ee63eddeafe46c1 Chun do chuid sonraí pearsanta a nuashonrú cuir ríomhphost chugainn ag customercare@kildarecoco.ie Caithfidh tú deis a thógáil don Chomhairle cé thú féin a chinntiú trí cruthúnas céannachta agus/nó seoladh a sholáthar, sula ndéanaimid aon athruithe.
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Appendix I – Consultation with CIE

Date: 05/12/2024 17:40:12
From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
To: Nick West <Nick.West@irishrail.ie>;
CC: Aly Gleeson <aly.gleeson@pmceconsultants.com>;
Subject: RE: Proposed Sand Pit, Kilmeague, Co. Kildare
Attachments: image001.png; image002.png; image003.png; image004.jpg; image005.jpg; 0a8a43e2-3833-41c0-904a-d2245e7d9aa8.png;

Hello Nick,

Thank you for responding on the 31st October 2024.

Whilst we understand Irish Rail's preference, Local Authority restrictions preclude alternative routes for development traffic travelling to/from the M7 motorway.

However, we believe the following points will offer some mitigation:

The quarry will export material in 25-30tonne loads, which we understand is well below the permitted load size on Public Roads where weight restrictions are not in place.
The quarry will not transport abnormal loads on the L7087.
Our projections suggest that 50% of HGV quarry traffic will exit the development, and turn east toward Prosperous, thereby avoiding Bridge Structure OBC56.
Of the 50% of quarry traffic using the L7087, half these trips will be unladen (i.e. empty).
Development traffic using the L7087 will represent a small % of existing quarry traffic currently using active quarry sites in the vicinity (e.g. Roadstone Allen), so the increase in load frequency will be relatively small.

Please let us thank you again for your time.

Yours sincerely,

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

Regards

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From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Sent: Friday 1 November 2024 10:28
To: 'Nick West' <Nick.West@irishrail.ie>
Cc: 'Noreen McCarrick' <Noreen.McCarrick@irishrail.ie>; Niall.McNamara@irishrail.ie; Aly Gleeson <aly.gleeson@pmceconsultants.com>; David.Gannon@irishrail.ie; Leticia.Camargo@irishrail.ie
Subject: RE: Proposed Sand Pit, Kilmeague, Co. Kildare

Hello Nick,

Thank you, we appreciate the response.

Kind regards,

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

Regards

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From: Nick West <Nick.West@irishrail.ie>
Sent: Thursday 31 October 2024 17:49
To: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Cc: Leticia Camargo <Leticia.Camargo@irishrail.ie>; Noreen McCarrick <Noreen.McCarrick@irishrail.ie>; David Gannon <David.Gannon@irishrail.ie>; Niall Mcnamara <Niall.McNamara@irishrail.ie>
Subject: FW: Proposed Sand Pit, Kilmeague, Co. Kildare

Antonis,

I refer to your email below and the attachment showing the proposed routes. The route along the L7087 passes over the Irish Bridge no OBC56 in the townland of Barretstown, Co Kildare. This bridge was originally constructed by the railway in 1846 and originally had cast iron beams sitting on stone abutments. The cast iron beams were replaced in 1952 by a post-tensioned beam deck (the first of its kind in Ireland) and this is the structure that remains today. Early post-tensioned beams have been vulnerable in the past to poor grouting of the stressing ducts and deterioration of the grout making them vulnerable to failure.

While what is proposed by this planning application does not envisage the passing of abnormal loads over this bridge we would be concerned that repeated heavy loads would impact the durability of a structure which is over seventy years old. We would consequently strongly urge the applicant to seek alternative routes.

Regards,

Nick West
Priomh-innealltóir, Faomhadh Teicniúil, Iarnród Éireann, Stáisiún na Phiarsaigh, Rae an Iarthair, Baile Átha Cliath 2, D02 RV00
Principal Engineer Technical Approvals, Irish Rail, Pearse Station, Westland Row, Dublin 2, D02RV00
T 01 703 3508 F 01 703 3591 E nick.west@irishrail.ie W www.irishrail.ie

Iarnród Éireann Irish Rail

From: Noreen McCarrick <Noreen.McCarrick@irishrail.ie>
Sent: Wednesday 30 October 2024 11:24
To: Nick West <Nick.West@irishrail.ie>; David Gannon <David.Gannon@irishrail.ie>
Subject: FW: Proposed Sand Pit, Kilmeague, Co. Kildare

Hi Nick/David

Please see attached below in relation to Haulage Route utilizing a rail overbridge.

Many thanks

Noreen

From: Noreen McCarrick
Sent: Thursday 24 October 2024 13:44
To: Leticia Camargo <Leticia.Camargo@irishrail.ie>
Subject: FW: Proposed Sand Pit, Kilmeague, Co. Kildare

Hi Leticia,

This is only come through today,

I know you will be busy with sorting items before you leave,

I don't mind reviewing the below and speaking with Nick or David on this, responding to them,

Let me know, it's no problem.

Thanks

Noreen

From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Sent: Thursday 24 October 2024 13:24
To: Noreen McCarrick <Noreen.McCarrick@irishrail.ie>
Cc: Aly Gleeson <aly.gleeson@pmceconsultants.com>
Subject: Proposed Sand Pit, Kilmeague, Co. Kildare

Hello Noreen,

I got your name from Shane Prendergast. As part of our current planning application for a new Sand Pit in Kilmeague, Co. Kildare, the Local Authority's Planning Team has issued a Further Information (FI) request asking that we notify Irish Rail of a haulage route that we're proposing on behalf of our client. As the proposed haul route (see attached) crosses a bridge over the railway at Thomastown, we would like to confirm that this route does not give rise to any concerns from Irish Rail. The proposed Sand Pit will not include any abnormal loads on this route, and has already been approved in principle by Kildare County Council.

I would be grateful if you could come back to us within the next week, as our response to the FI needs to be submitted by the 1st November.

Apologies for the urgency, and thank you for your time.

Kind regards,

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

Regards

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Appendix J – Consultation with Waterways Ireland

Date: 15/11/2024 10:14:09
From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
To: 'Dublin Canals' <dublincanals@waterwaysireland.org>;
CC: Aly Gleeson <aly.gleeson@pmceconsultants.com>;
Subject: RE: Proposed Sand Pit, Kilmeague, Co. Kildare
Attachments: image001.png; image002.png; image003.png; image004.jpg;

Hello,

Thank you for your response, we appreciate that.

Kind regards,

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

Regards

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From: Dublin Canals <dublincanals@waterwaysireland.org>
Sent: Friday 15 November 2024 09:34
To: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Subject: RE: Proposed Sand Pit, Kilmeague, Co. Kildare

Dear Mr Papadakis,

Thank you for your email on the 8th November, please be advised that our asset management team will review your query.

Kind regards

Dublin canals team

From: Antonis Papadakis <antonis.papadakis@pmceconsultants.com>
Sent: 08 November 2024 18:56
To: Dublin <Dublin@waterwaysireland.org>; 'planning@waterwaysireland.org' <planning@waterwaysireland.org>
Cc: Aly Gleeson <aly.gleeson@pmceconsultants.com>

Subject: Proposed Sand Pit, Kilmeague, Co. Kildare

Hello,

My name is Antonis Papadakis and I am contacting you on behalf of PMCE. We are working with Quarry Consulting on a planning application for a new Sand & Gravel Pit in Kilmeague, Co. Kildare (planning reference 24/60202) located on the L7081 Local Road (for exact location please find a link here). As part of the planning application, the Local Authority's Planning Team has issued a Further Information (FI) request asking that we notify Waterways Ireland of a haulage route that we're proposing on behalf of our client.

The proposed haul route does not include abnormal loads, however as it crosses water bodies, we would like to confirm that this route does not give rise to any concerns from Waterways Ireland.

Would it be possible to provide contact details to the appropriate Area Engineer for this purpose?

Kind regards,

Antonis Papadakis
Civil and Transport Engineer
EUR ING, BSc (Hons), MSc, MIEI, MTCG

Regards

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