consulting engineers

NRB

Transportation Assessment Report

For

Revised Proposed Self-Storage Warehousing Facility

At

Liffey Valley, Lucan, Dublin 22.

SUBMISSION ISSUE

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EXECUTIVE SUMMARY

NRB Consulting Engineers Ltd were appointed to address the Traffic/Transportation issues associated with a revised planning application for a stand-alone self-storage warehouse facility at Liffey Valley, Lucan, Dublin 22. (The development was originally granted planning permission under SDCC Reg Ref SD21A/0284).

This Transportation Assessment (TA) has been prepared to address any Traffic Impact issues associated with the revised proposal, and specifically the capacity of the existing road network and the ability of the site access to accommodate the worst-case traffic flows associated with the slightly larger facility.

In Traffic Engineering, under TTA Guidelines, we are only required to assess the effects of the additional traffic generated, 'on top' of the already 'committed' or permitted development traffic. In this case we have however provided an assessment of the entire proposed development traffic on a 'de-novo' basis, as the permitted development has not yet been developed. This provides for a robust assessment of impact to South Dublin County Council.

The Report has been prepared in accordance with TII's Traffic & Transportation Assessment Guidelines and addresses the worst-case traffic impact of the proposal. This TA addresses the adequacy of the existing and improved local road network to safely and appropriately accommodate the worst-case vehicular demands with the development fully operational, taking account of the existing transportation demands locally.

It is acknowledged that the Liffey Valley junctions are being upgraded, and it is demonstrated herein that this development has no impact upon the operation of the upgraded junctions.

We commissioned and undertook traffic surveys of the adjacent road network when schools were fully opened and then applied an industry standard factor to adjust the data to reflect normal and non-pandemic times. This represents industry-standard procedure. This traffic survey data formed the basis of the study.

The Transportation Assessment confirms that the established existing road network, and the access junction, are more than adequate to accommodate the worst-case traffic

associated with the revised proposed development. The assessment also confirms that the construction and full occupation of the scheme will have a negligible impact upon the operation of the adjacent road network.

Direct and high-quality pedestrian linkages are provided between the site and the existing pedestrian/cycling facilities on the surrounding road network. The Car and Cycle Parking Quantum has been assessed and is appropriate to meet the requirements of the proposed development.

We conclude that there are no adverse traffic/transportation capacity or operational safety issues associated with the construction and operation of the proposed development which would prevent planning permission being granted by South Dublin County Council.

1.0 INTRODUCTION

1.1 This Transportation Assessment (TA) has been prepared by NRB Consulting Engineers Ltd and addresses the Traffic/Transportation issues associated with a planning application for a stand-alone self-storage warehouse facility at Liffey Valley, Lucan, Dublin 22. (The development was originally granted planning permission under SDCC Reg Ref SD21A/0284)

1.2 The proposed development is located on appropriately zoned undeveloped land within the confines of the overall Liffey Valley Complex, immediately north of the Shopping Centre. A site location plan is included below as ***Figure 1.1***.

Figure 1.1 - Site Location within Liffey Valley

1.3 In describing the Receiving Environment and the Proposed Future Environment, this report addresses the following aspects of the proposed development:

- Relatively Small Scale of the revised development in Traffic terms, being self-storage (as reflected in the detailed assessment in this report),

- Location of the development within the confines of an established busy District Centre in close proximity to high quality Public Transport Links,
- Traffic & Transportation impact,
- Capacity of the proposed vehicular accesses to accommodate the worst-case development traffic flows,
- Capacity of & Impact Upon the Existing Road Network & Junctions,
- Adequacy and safety of the existing roads and junctions locally, within the area of influence.

1.4 Recommendations contained within this Transportation Assessment are based on the following sources of information and industry-standard practices:

- The TII Traffic & Transport Assessment Guidelines,
- Design Manual for Urban Roads and Streets,
- Weekday AM and PM Peak Classified Turning Movements Traffic Survey Data commissioned,
- TII Assessment Guidance,
- TII Permanent Traffic Counter Data from the adjacent N4,
- Our experience in assessing the impact of Developments of this Nature, and
- Site Visits and Observations.

1.5 The Report has been prepared in accordance with the requirements of the TII's Traffic & Transport Assessment Guidelines. These are the professional Guidelines used to assess the impact of developments on public roads.

2.0 EXISTING CONDITIONS, DEVELOPMENT PROPOSALS & PARKING

2.1 The subject development site is located on the northern boundary of the overall Liffey Valley District Centre. It is bound immediately to the north by the embankments and footprint of the N4 National Road. It bound to the east by the existing Abbott Office Block ("Liffey Valley Office Park"), and to the west by the existing Giraffe Childcare facility.

2.2 The site fronts onto the local distributor road known as 'Liffey Valley Motor Hall Road', which serves the motor dealerships located to the west of the road. The local road is a wide & high-capacity single carriageway road, provided with footpaths and some cycle paths along either side.

2.3 Images showing the existing site and context are included below as ***Figure 2.1*** and ***Figure 2.2***.

Figure 2.1 – View of Site Looking Eastwards

Figure 2.2 – View of Site Looking Westwards

2.4 Whilst of course it is acknowledged that the local roads serving Liffey Valley to the south of the site are heavily trafficked, however the Traffic survey & assessment (within ***Appendix D***) confirms that the Liffey Valley Motor Hall Road is actually in itself very lightly trafficked. It carries a weekday AM Peak Hour 2-Way traffic flow of approximately 86 Passenger Car Units (PCUs) and a 2-way flow of 140 PCUs in the PM Peak Hour, measured immediately west of the adjacent office block. In these terms, the road is considered very lightly trafficked in terms of its link carrying capacity.

2.5 To set the above existing flow in context, roads of this nature have a traffic carrying or link capacity of between 1,000 and 1,200 PCUs per-direction per-hour. This link capacity of a typical street of this nature provides a context for the existing conditions pertaining on the road serving the site. Of course, it should be remembered, and it is acknowledged that the capacity or through-put of any road in an urban environment of this nature is generally determined by the capacity of the terminal junctions.

2.6 We would also highlight that the proposed development is located within a 5-minute walk of the Liffey Valley Bus terminus AND also the Bus Services on the N4 National Road. These together provide for very high frequency services, and ensure that the site is accessible by bus, on foot or by bicycle for the small number of staff that will be employed. An image showing the proximity of the site, within a 5-minute walk, to the Liffey Valley Bus Terminus is included below as ***Figure 2.3***.

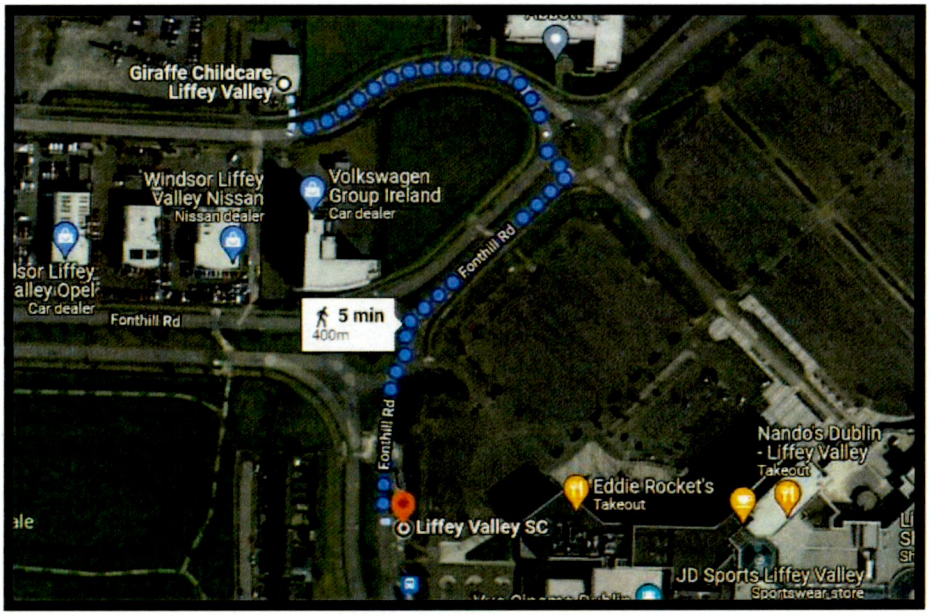

Figure 2.3 – Less than 5 Min Walk to LV Bus Terminus

2.7 It is acknowledged that the Liffey Valley junctions to the south are being upgraded, however it is demonstrated herein that this subject development has no impact upon the operation of the current/upgraded junctions.

2.8 An examination of the Road Safety Authority (RSA) on-line database of reported road traffic accidents confirms that there have been no relevant accidents on the adjacent affected roads during the reported period 2005 to date, which would be exacerbated by the proposed development. An extract from the RSA Database is included below as ***Figure 2.4*** below.

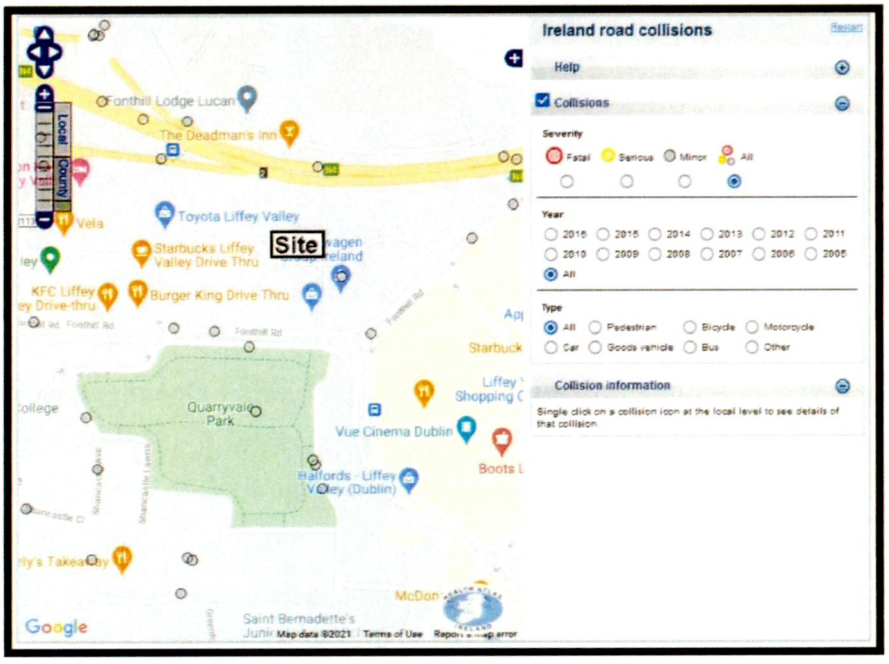

Figure 2.4 – RSA Accident Database Extract

Proposed Development

2.9 The proposed development will consist of modifications to the self-storage facility and ground floor cafe permitted by South Dublin County Council under Reg. Ref. SD21A/0284. The proposed modifications will comprise:

- An increase in the Gross Floor Area (GFA) from 8,008m^2 to 19,673m^2 as a result of an increase in the total number of internal floors from 4 to 7 no. levels, extension of the basement and an increase in building length along the northwest corner of the building;
- An increase in the overall building height of 1.5m;
- Minor internal layout alterations;
- Minor alterations to the roof layout;
- Elevational changes including alterations to the external north and west façade and an increase in depth of canopy on the south façade;
- Relocation and reconfiguration of the car parking and provision of reserved bay for larger vehicles. Inclusion of an additional 5 no. EV spaces (10 no. in total). There is no proposed change to the overall number of permitted car parking spaces;
- Provision of 20 no. covered bicycle parking spaces;
- Alterations to internal access road and landscaping;
- Provision of additional landscaping; and
- All associated and ancillary site works.

2.10 Annotated drawings showing the proposed Scheme Layout are included herein as ***Appendix A***.

Bicycle & Car Parking Assessment

2.11 In terms of **Bicycle Parking** the new SDCC Development Plan 2022-2028 now contains the minimum requirements within Table 12.23. This requires 1 space per 200m^2 GFA long-stay bicycle parking and there is no SDCCDP requirement for 'short-stay' parking. This translates to an onerous requirement for 98 bicycle parking spaces long stay (i.e., staff) parking spaces. 20 no. covered bicycle parking spaces are being provided. It should however be noted that the provision will by-far outweigh the potential demand by 5-8 staff for a U-Store-it self-storage facility. The SDCC Development Plan just classifies generic 'warehousing' and does not differentiate between warehouse types. We believe that the provision of bicycle parking is therefore appropriate in this case.

2.12 In terms of the SDCC Development Plan 2022-2028 and **Car Parking**, the requirements are set out in Table 12.25 with the extract included below as ***Figure 2.5.***

Enterprise and Employment	Development	Zone 1	Zone 2
	Warehousing	1 per 100 sq m GFA	1 per 200 sq m GFA

Figure 2.5 - Extract 12.25 of the SDCC Development Plan ("Maximum" Standards)

2.13 Being clearly within 400m of very high frequency bus services, the site is located within Zone 2 for parking assessment purposes. Therefore, with 19,673m^2 of GFA, the Development Plan suggests a maximum provision of 98 car parking spaces (at a required ratio of 1 space per 200m^2 for general warehousing facilities within Zone 2, 1 per 100 in Zone 1). 50 car parking spaces are being provided, which is less than the maximum requirement BUT we believe this represents a sustainable approach for a Self-Storage facility. The SDCC Development Plan just classifies generic 'warehousing' and does not differentiate between warehouse types, and general warehousing, with way more staff, would have a much more significant demand for car parking.

2.14 It should be noted that a 'U-Store-It' development of this nature generally has a total of 5-8 staff present and based on established trends, we are advised by operators that there are ordinarily no more than 10 people visiting a U Store-it facility at any one time. The figures provided by operators project a max traffic generation of 23 cars per hour. Our assessment included within this report is based on a higher assessment figure of 35-38 car movements, and the TA Report therefore represents a robust approach.

3.0 TRIP GENERATION, ASSIGNMENT & DISTRIBUTION

3.1 As this represents an extension to a previously permitted development, under TTA Guidelines, we are technically only required to assess the effects of the additional traffic generated, 'on top' of the already 'committed' or permitted development traffic. In this case we have however provided an assessment of the entire proposed development traffic on a 'de-novo' basis, as the already permitted development has not yet been developed. This provides for a robust assessment of impact to South Dublin County Council.

3.2 In terms of assessing vehicular traffic and the impact of same on the local road network, the Trip Rate Information Computer System (TRICS) database is ordinarily used to ascertain vehicular trip generation associated with the use of any particular site. This represents industry standard practice for Transportation Assessments in Ireland, and indeed is referenced and recommended for use within the TTA Guidelines. We have included as ***Appendix C*** the TRICS output for traditional Self Storage Warehousing, and this provides a robust estimation of traffic as illustrated in ***Table 3.1***.

3.3 The Table summarises the Output from the TRICS database, which is included herein as ***Appendix C*** (based on the most-recent licensed version of the database) for comparison purposes.

Table 3.1: TRICS Data Summary, 19678m² Self-Storage Warehouse

19678 m² S-S Warehouse	Arrivals (PCUs)		Departures (PCUs)		Total 2-Way Traffic (PCUs)
Network Hour	Per 100m²	Dev	Per 100m²	Dev	
Weekday AM Peak Hr 8-9	0.118	23	0.076	15	38
Weekday PM Peak Hr 5-6	0.052	10	0.127	25	35

3.4 The application of TRICS in this case specifically excludes the effect of Shared Visits to other elements within the Liffey Valley Area and quantifies the volumes of traffic on an individual basis with the traffic assigned as 100% primary trips - in these terms the assessment can be considered further robust. The small ancillary Coffee Shop space for customers & staff is associated with the self-storage use and is not anticipated to generate any traffic in its own right.

3.5 Therefore, the use of TRICS and the methodology adopted is Robust and Onerous and the Trip Rates applied & used provide for a robust reflection of the expected worst-case traffic generated by the proposed development.

3.6 Notwithstanding, in light of observation of existing capacity conditions, the use of higher Trip Rates, if required would have no impact upon the conclusions of the study. This is particularly the case given the low traffic impact associated with the development.

Assessment Methodology

3.7 We have used hand assignment techniques based on the observed movements, with the worst-case traffic assigned to the roads based on the observed established traffic patterns, being the industry standard methodology. The standard methodology applied was to firstly ascertain the base background traffic conditions for both the weekday AM and weekday PM Commuter Peak periods.

3.8 To this end we commissioned and undertook a Traffic Survey of the existing affected roads and junctions in order to establish base background traffic conditions. The Traffic Survey commissioned included the junctions as set out in ***Figure 3.1*** below.

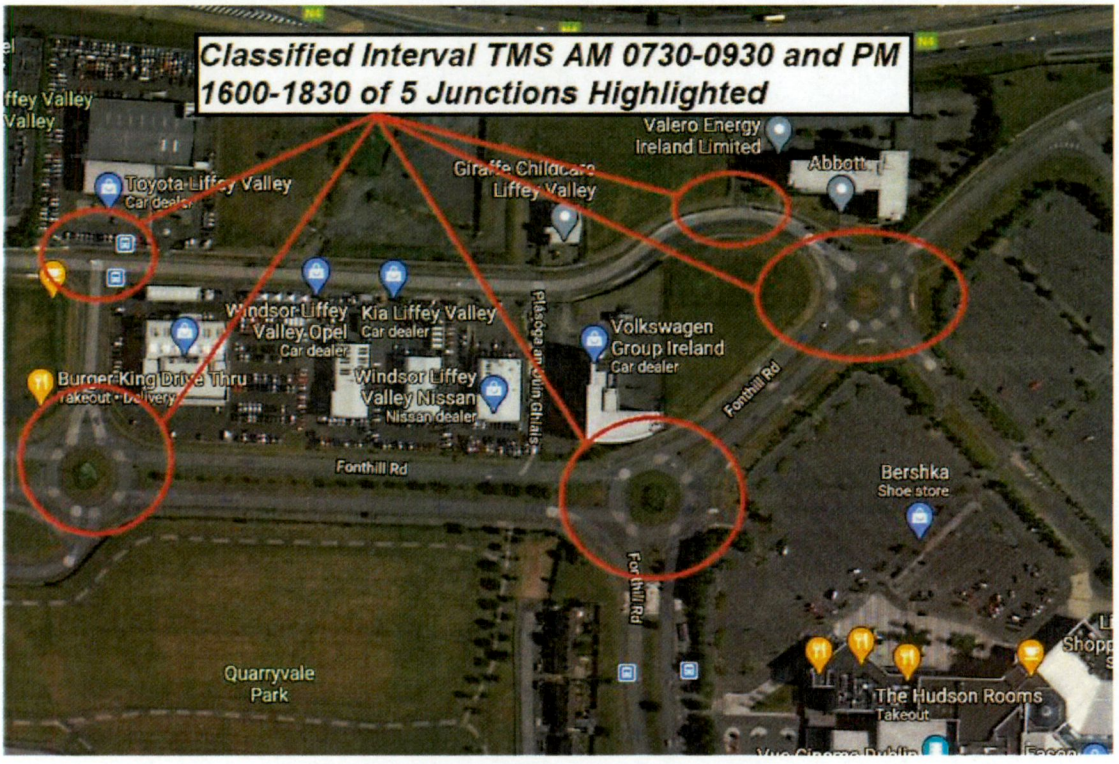

Figure 3.1 – Traffic Surveys Commissioned

3.9 Using this data, we then applied a calculated **Covid Factor** based on accurate data extracted from the TII Permanent Traffic Counter data on the N4 nearest the site. This represents a pragmatic industry-standard approach in these times when Planning Applications have statutory timeframes during a Pandemic. Details of the traffic surveys

are included as ***Appendix B*** and are reproduced as commuter peak hour Stick Diagrams as ***Appendix D.***

3.10 We then used the TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 (Travel Demand Projections 2021, Table 6.1: Central Growth Rates: Annual Growth Factors, Metropolitan Dublin), to establish projected occupation/opening year 2024 and design year 2039 traffic conditions 15 years following opening on the local road network. The worst-case traffic based on the content of ***Table 3.1*** above was then applied in order to establish Opening Year and Design Year Traffic Conditions with the proposed development in place and fully occupied. This is all included in the calculations included herein as ***Appendix D***.

3.11 It should be noted that we have selected an opening year of 2024 as being reasonable and appropriate. However, in our experience, varying the opening year and design year by 1-3 years, if required for whatever reason, would have no significant impact upon the conclusions of the study. In addition, given the favourable results reported in this study, if required to apply higher background traffic conditions for any reason we would not anticipate any changes to the conclusions. Traffic growth factors for future year assessments were calculated from data obtained in the TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 which provides the recommended method of predicting future year traffic growth on Roads.

3.12 Calculations of the relevant growth factors are included in ***Table 3.2*** below (based on tabulated 'Central Growth' for Metropolitan Dublin). It should be noted that any requirement to use different or higher growth factors will also have no implications for the conclusions of the study.

Table 3.2: Traffic Growth Rates, TII Travel Demand Projections Unit 5.3

Year	to Year	Table 6.1:
Surveyed	2024	1.049
2024	2039	1.152

4.0 TRAFFIC IMPACT - TRAFFIC CAPACITY RESULTS

4.1 The TII Traffic and Transport Assessment Guidelines set out a strict mechanism for assessment of developments of this nature and determining whether further assessment is indeed required. This Guideline requires a **Threshold Assessment** of the impact on the local roads to be provided in order to determine whether additional more detailed modelling and assessment of particular critical junctions is necessary.

4.2 We have assessed the impact of the proposed development with a wide area of influence included, as set out in ***Figure 3.1*** above. The professional guidance referenced above sets out specific increases in traffic volume associated with new development, which, when breached, requires further detailed analysis to be undertaken. The recommendation is that, if the expected increase is **5%** for networks that are considered heavily trafficked or congested, then further analysis is warranted. In this case, given the location within the Liffey Valley Area, for robustness, the 5% threshold has been applied.

4.3 In this regard, it is demonstrated herein that the proposed operation of the facility, with very low volumes of vehicular traffic added to a busy network, will not result in any significant or noticeable level of new trips on the local roads, with all anticipated traffic increases beyond the Proposed Access junction expected to be **well below** the Industry-Standard level of 5% above which further assessment is required. This underlines the low levels of traffic in comparison with the established road network traffic volumes. The increases are more pronounced on the road frontage, the 'Liffey Valley Motor Hall Road', due to the low existing background traffic volumes here.

4.4 Our assessment confirms that the absolute worst case traffic increases on the adjacent road network junctions, with the entire revised development operational, undertaken in accordance with Guidelines, is as summarised below as ***Table 4.1***.

Table 4.1: All of the Proposed Development Operational - Threshold Assessment, Worst-Case Impact - AM & PM Peak Hours 2024

Assessed Road or Junction	Traffic Increase %		COMMENT
	AM Pk Hr	PM Pk Hr	
LV Office Campus 'Abbott' Access Jnct	7.5%	4.3%	>5% So Capacity Assessment Undertaken
LV SC/LV Spine Rd R'Abt to the East	1.7%	4.4%	<5% No Further Assessment Required
LV SC Exit/Fontill Rd R'Abt to South	0.6%	0.3%	<5% No Further Assessment Required
LV Motor Hall Rd/T Junct to West	5.5%	4.3%	>5% So Capacity Assessment Undertaken
Fonthill Rd/LV Spine Rd R'Abt to SW	1.9%	1.3%	<5% No Further Assessment Required

4.5 Apart from the local junctions along LV Motor Hall Access Road, these worst-case traffic increases are all well below the Guideline & industry-standard level above which further assessment is required, in accordance with the Guidelines.

4.6 To set these increased levels of traffic in context, the day-to-day variation in traffic volume (due to day-of-week or weather conditions, for example) is accepted as 10%, so, in this context alone, increases of less than 5% will go entirely unnoticed and this underscores the negligible impact of the proposed development traffic.

4.7 We have undertaken traffic modelling of the junctions with traffic increases greater than 5%, including the site access T-Junction, for the weekday AM and PM Periods (2024 Opening Year and 2039 Design Year +15) purely to confirm & demonstrate adequate capacity exists to accommodate the increased traffic associated with the development.

T-Junction - Capacity Modelling

4.8 We have used the TII-approved software package 'Junctions 9' PiCADY' (**P**riority **I**ntersection **C**apacity **A**nd **D**elay) software package (as part of the TRL Package 'Junction 9') to assess the capacity of the junctions. PiCADY produces results based on a ratio of flow to capacity (RFC) and queue length. An RFC greater that 1.00 indicates that a junction is operating at or above capacity, with 0.85 considered to be the optimum RFC value. We have appended the detailed computer simulation model results for the proposed site access as ***Appendix E,*** the model results for the LV Motor Hall to Fonthill Rd T-Junction as ***Appendix F,*** and the model results for the adjacent Office Campus T-Junction as ***Appendix G***.

4.9 The detailed output of the models is summarised below as ***Table 4.2, Table 4.3*** and ***Table 4.4.***

Table 4.2: Site Access T Junction - PiCADY Results, Weekday AM & PM Pk Hours - 2024 & 2039

Modelled Scenario	*Period Mean Max Q (PCUs)*	*Period Max RFC*
Opening Year 2024 AM Peak Hr	<1	0.04
Opening Year 2024 PM Peak Hr	<1	0.07
Design Year 2039 AM Peak Hr	<1	0.04
Design Year 2039 PM Peak Hr	<1	0.07

Table 4.3: Motor Hall-Fonthill Rd T-Junction - PiCADY Results, Weekday AM & PM Pk Hours - 2024 & 2039

Modelled Scenario	*Period Mean Max Q (PCUs)*	*Period Max RFC*
Opening Year 2024 AM Peak Hr	<1	0.42
Opening Year 2024 PM Peak Hr	<1	0.36
Design Year 2039 AM Peak Hr	<1	0.49
Design Year 2039 PM Peak Hr	<1	0.42

Table 4.4: Adjacent Office T-Junction - PiCADY Results, Weekday AM & PM Pk Hours - 2024 & 2039

Modelled Scenario	*Period Mean Max Q (PCUs)*	*Period Max RFC*
Opening Year 2024 AM Peak Hr	<1	0.01
Opening Year 2024 PM Peak Hr	<1	0.04
Design Year 2039 AM Peak Hr	<1	0.01
Design Year 2039 PM Peak Hr	<1	0.05

4.10 The results of the modelling clearly show that each of the modelled junctions will have way more than adequate capacity to accommodate the worst-case traffic associated with the fully complete and occupied scheme, in opening and design years, conscious of the very small increases in traffic associated with the subject development.

4.11 The analysis undertaken confirms that there is adequate capacity in the local roads to accommodate the worst-case traffic projections without any concerns arising in terms of increased Traffic Congestion or indeed adverse Traffic Safety.

5.0 CONCLUSIONS

5.1 NRB Consulting Engineers Ltd were appointed to address the Traffic/Transportation issues associated with a revised planning application for a stand-alone self-storage warehouse facility at Liffey Valley, Lucan, Dublin 22. (The development was originally granted planning permission under SDCC Reg Ref SD21A/0284).

5.2 This Transportation Assessment (TA) has been prepared to address any Traffic Impact issues associated with the revised proposal, and specifically the capacity of the existing road network and the ability of the site access to accommodate the worst-case traffic flows associated with the modified storage facility. As this represents an extension to a previously permitted development, under TTA Guidelines, we are technically only required to assess the effects of the additional traffic generated, 'on top' of the already 'committed' or permitted development traffic. In this case we have however provided an assessment of the entire proposed development traffic on a 'de-novo' basis, as the already permitted development has not yet been developed. This provides for a robust assessment of impact to South Dublin County Council.

5.3 The Report has been prepared in accordance with TII's Traffic & Transportation Assessment Guidelines and addresses the worst-case traffic impact of the proposal. This TA addresses the adequacy of the existing and improved local road network to safely and appropriately accommodate the worst-case vehicular demands with the development fully operational, taking account of the existing transportation demands locally. It is acknowledged that the Liffey Valley junctions are being upgraded, and it is demonstrated herein that this development has no impact upon the operation of the upgraded junctions.

5.4 An assessment of Car Parking and Bicycle Parking quantum and design provided has been undertaken, and the provision is considered sufficient to cater for the level of development proposed.

5.5 This report demonstrates that the proposed Development will have an absolutely negligible impact upon the established local traffic conditions and can easily be accommodated on the road network without any capacity concerns arising.

5.6 The assessment confirms that the proposed access junction is of more than adequate capacity to accommodate the worst-case traffic associated with the proposed development during the selected year of opening and the design year 15 years following opening.

5.7 It is considered that there are no significant Operational Traffic Safety or Road Capacity issues, affecting the established road network, that prevent a positive determination of the revised application by South Dublin County Council.

APPENDICES - CONTENT

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APPENDIX A

Proposed Development Site Layout/Plans

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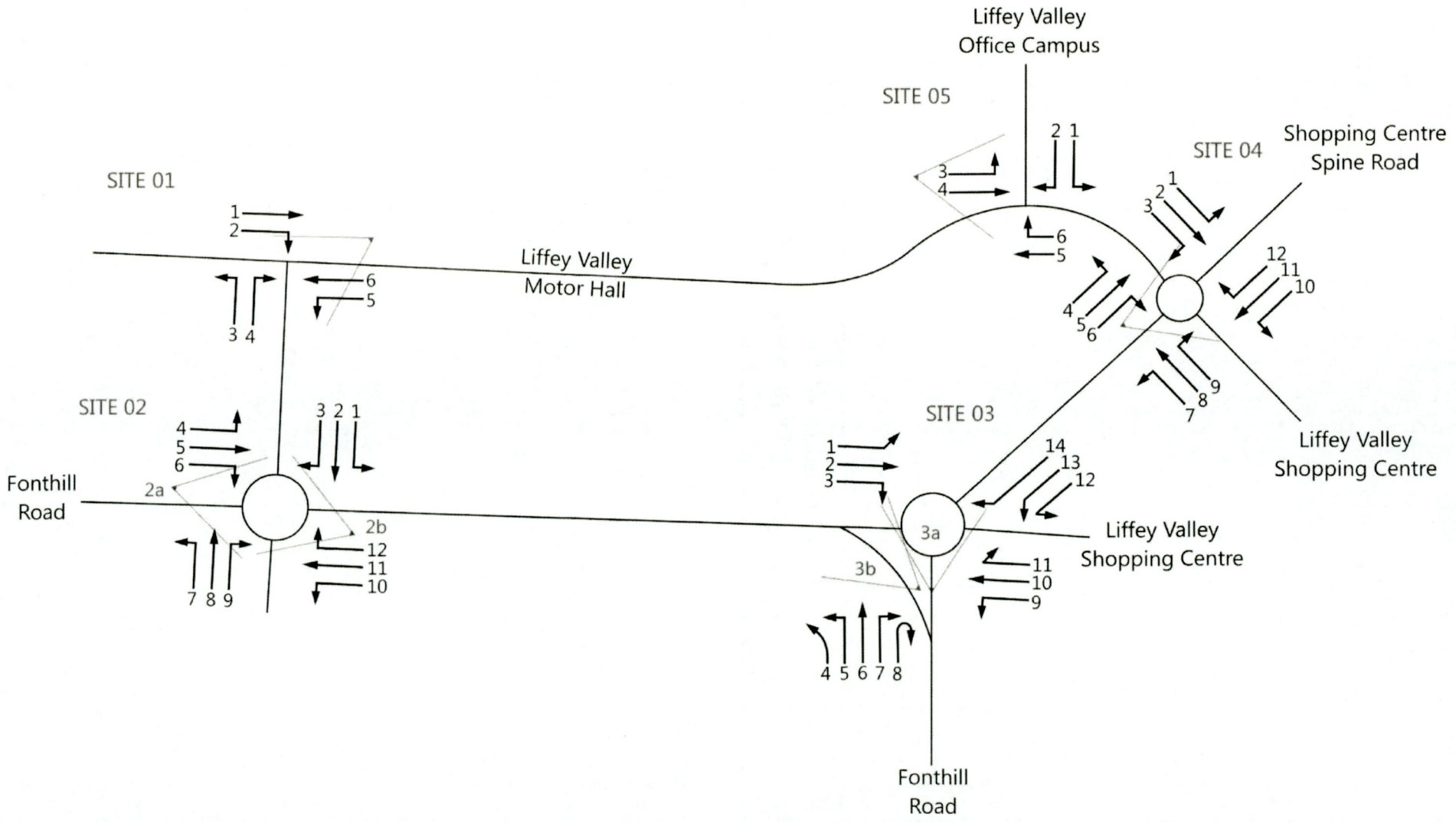
APPENDIX B

Weekday - Classified
Turning Movement Traffic Survey Output Data

Site/Movement Numbering



	Job number: TRA/21/148	Job date: 9th September 2021	Drawing No: TRA/21/148-02
	Client: NRB Consulting Engineers	Job day Thursday	Cover Sheet.... Traffic Survey Details

traffinomics.ie

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 01 DATE: 9th September 2021

LOCATION: Liffey Valley Motor Hall Junction DAY: Thursday

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	2	2	0	0	4	4	0	0	28	3	0	0	31	31	0	0	19	2	0	0	21	21
07:15	0	0	0	0	0	0	0	0	0	0	34	6	2	0	42	44	0	0	43	3	2	0	48	50
07:30	0	0	1	0	0	0	1	1	1	0	44	5	1	0	51	51	0	0	33	1	0	0	34	34
07:45	1	0	0	0	0	0	1	0	0	0	35	1	1	0	37	38	0	0	25	5	0	0	30	30
H/TOT	1	0	3	2	0	0	6	5	1	0	141	15	4	0	161	164	0	0	120	11	2	0	133	135
08:00	0	0	3	1	0	0	4	4	0	0	41	4	0	0	45	45	0	0	41	4	0	0	45	45
08:15	0	0	6	1	0	0	7	7	0	1	24	2	0	0	27	26	0	0	32	0	0	0	32	32
08:30	0	0	6	0	1	0	7	8	0	0	35	3	0	0	38	38	0	0	24	0	1	0	25	26
08:45	0	0	5	1	0	0	6	6	0	0	31	4	0	0	35	35	0	0	29	3	0	0	32	32
H/TOT	0	0	20	3	1	0	24	25	0	1	131	13	0	0	145	144	0	0	126	7	1	0	134	135
09:00	0	0	5	2	0	0	7	7	0	0	31	1	0	0	32	32	0	0	40	3	0	0	43	43
09:15	0	0	2	0	0	0	2	2	0	0	34	1	0	0	35	35	0	0	40	2	0	0	42	42
09:30	0	0	1	0	0	0	1	1	0	0	29	3	0	0	32	32	0	0	34	1	0	0	35	35
09:45	0	0	3	0	0	0	3	3	0	0	32	2	0	0	34	34	0	0	32	0	0	0	32	32
H/TOT	0	0	11	2	0	0	13	13	0	0	126	7	0	0	133	133	0	0	146	6	0	0	152	152
P/TOT	1	0	34	7	1	0	43	43	1	1	398	35	4	0	439	442	0	0	392	24	3	0	419	422

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	5	1	0	0	6	6	0	0	36	10	0	0	46	46	0	1	45	0	0	0	46	45
16:15	0	0	6	0	0	0	6	6	0	0	40	3	0	0	43	43	0	0	30	3	0	0	33	33
16:30	0	0	6	0	0	0	6	6	0	0	53	4	0	0	57	57	0	0	32	1	0	0	33	33
16:45	0	0	8	0	0	0	8	8	0	0	38	0	0	0	38	38	0	0	53	2	0	0	55	55
H/TOT	0	0	25	1	0	0	26	26	0	0	167	17	0	0	184	184	0	1	160	6	0	0	167	166
17:00	0	0	8	0	0	0	8	8	0	0	40	2	0	0	42	42	0	0	43	2	0	0	45	45
17:15	0	0	4	1	0	0	5	5	0	0	44	6	0	0	50	50	0	0	41	5	0	0	46	46
17:30	0	0	5	0	0	0	5	5	0	0	32	5	0	0	37	37	0	0	39	6	0	0	45	45
17:45	0	0	7	0	0	0	7	7	0	0	46	0	0	0	46	46	0	0	52	2	0	0	54	54
H/TOT	0	0	24	1	0	0	25	25	0	0	162	13	0	0	175	175	0	0	175	15	0	0	190	190
18:00	0	0	6	1	0	0	7	7	0	0	25	4	0	0	29	29	0	0	52	4	0	0	56	56
18:15	0	0	5	0	0	0	5	5	0	1	48	5	1	0	55	55	0	0	59	4	0	0	63	63
18:30	0	0	4	1	0	0	5	5	0	0	57	4	0	0	61	61	0	0	60	5	0	0	65	65
18:45	0	0	6	0	0	0	6	6	0	0	62	3	0	0	65	65	0	0	52	2	0	0	54	54
H/TOT	0	0	21	2	0	0	23	23	0	1	192	16	1	0	210	210	0	0	223	15	0	0	238	238
P/TOT	0	0	70	4	0	0	74	74	0	1	521	46	1	0	569	569	0	1	558	36	0	0	595	594

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 01 DATE: 9th September 2021

LOCATION: Liffey Valley Motor Hall Junction DAY: Thursday

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
07:15	0	0	3	1	0	0	4	4	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2
07:30	0	0	10	0	0	0	10	10	0	0	3	0	0	0	3	3	1	0	1	1	0	0	3	2
07:45	0	0	25	0	0	0	25	25	0	0	4	0	0	0	4	4	0	0	1	0	0	0	1	1
H/TOT	0	0	38	1	0	0	39	39	0	0	9	0	0	0	9	9	1	0	4	1	0	0	6	5
08:00	1	0	25	1	1	0	28	28	0	0	7	2	1	0	10	11	0	0	1	0	0	0	1	1
08:15	0	0	42	4	0	0	46	46	0	0	14	0	0	0	14	14	0	0	2	0	0	0	2	2
08:30	0	0	35	0	0	0	35	35	0	0	12	1	0	0	13	13	0	0	4	0	0	0	4	4
08:45	0	1	36	1	0	0	38	37	0	0	12	0	0	0	12	12	0	0	2	0	0	0	2	2
H/TOT	1	1	138	6	1	0	147	147	0	0	45	3	1	0	49	50	0	0	9	0	0	0	9	9
09:00	0	1	22	1	0	0	24	23	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0
09:15	0	0	21	5	1	0	27	28	0	0	16	1	0	0	17	17	0	0	2	0	0	0	2	2
09:30	0	0	11	3	0	0	14	14	0	0	6	4	1	0	11	12	1	0	0	0	0	0	1	0
09:45	0	0	10	6	0	0	16	16	1	0	7	4	0	0	12	11	0	0	1	0	0	0	1	1
H/TOT	0	1	64	15	1	0	81	81	1	0	34	9	1	0	45	45	1	0	3	0	0	0	4	3
P/TOT	1	2	240	22	2	0	267	267	1	0	88	12	2	0	103	104	2	0	16	1	0	0	19	17

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	15	0	1	0	16	17	0	0	17	0	0	0	17	17	0	0	10	1	0	0	11	11
16:15	0	0	8	2	0	0	10	10	0	0	27	2	0	1	30	31	0	0	3	0	0	0	3	3
16:30	0	0	16	0	0	0	16	16	0	0	26	2	0	0	28	28	0	0	1	0	0	0	1	1
16:45	0	0	17	0	0	0	17	17	1	0	21	1	1	0	24	24	0	0	4	0	0	0	4	4
H/TOT	0	0	56	2	1	0	59	60	1	0	91	5	1	1	99	100	0	0	18	1	0	0	19	19
17:00	0	0	14	2	0	0	16	16	0	0	43	1	0	0	44	44	0	0	8	0	0	0	8	8
17:15	0	0	12	0	0	0	12	12	0	0	23	1	0	0	24	24	0	0	4	0	0	0	4	4
17:30	0	0	7	0	0	0	7	7	0	0	30	1	0	0	31	31	0	0	8	0	0	0	8	8
17:45	0	0	7	1	0	0	8	8	0	0	40	5	0	0	45	45	0	0	5	0	0	0	5	5
H/TOT	0	0	40	3	0	0	43	43	0	0	136	8	0	0	144	144	0	0	25	0	0	0	25	25
18:00	0	0	3	0	0	0	3	3	0	2	48	0	0	0	50	49	0	0	3	2	0	0	5	5
18:15	0	0	3	1	0	0	4	4	0	0	8	0	0	0	8	8	0	0	7	0	0	0	7	7
18:30	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	6	0	0	2	0	0	0	2	2
18:45	0	0	1	1	0	0	2	2	0	0	5	0	0	0	5	5	0	0	6	1	0	0	7	7
H/TOT	0	0	7	2	0	0	9	9	0	2	67	0	0	0	69	68	0	0	18	3	0	0	21	21
P/TOT	0	0	103	7	1	0	111	112	1	2	294	13	1	1	312	312	0	0	61	4	0	0	65	65

SITE: 02 DATE: 9th September 2021

LOCATION: Fonthill Road/Liffey Valley Motor Hall Roundabout DAY: Thursday

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	27	3	0	0	30	30
07:15	0	0	8	2	0	0	10	10	0	0	3	0	0	0	3	3	0	0	24	4	2	0	30	32
07:30	0	0	14	2	0	0	16	16	0	0	1	0	0	0	1	1	1	0	32	3	1	0	37	37
07:45	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	31	1	1	0	33	34
H/TOT	0	0	32	4	0	0	36	36	0	0	4	0	0	0	4	4	1	0	114	11	4	0	130	133
08:00	0	0	5	1	0	0	6	6	0	0	0	0	0	0	0	0	0	0	43	5	1	0	49	50
08:15	0	0	6	0	0	0	6	6	0	0	2	0	0	0	2	2	0	1	30	2	0	0	33	32
08:30	0	0	6	0	0	0	6	6	0	0	4	0	0	0	4	4	0	0	37	4	0	0	41	41
08:45	0	0	9	0	0	0	9	9	0	0	3	1	0	0	4	4	0	0	31	3	0	0	34	34
H/TOT	0	0	26	1	0	0	27	27	0	0	9	1	0	0	10	10	0	1	141	14	1	0	157	157
09:00	0	0	6	0	0	0	6	6	0	0	0	1	0	0	1	1	0	0	30	0	0	0	30	30
09:15	0	0	15	0	0	0	15	15	0	0	3	0	0	0	3	3	0	0	32	2	0	0	34	34
09:30	0	0	5	1	0	0	6	6	0	0	0	0	0	0	0	0	0	0	30	6	1	0	37	38
09:45	0	0	11	1	0	0	12	12	0	0	0	0	0	0	0	0	1	0	28	5	0	0	34	33
H/TOT	0	0	37	2	0	0	39	39	0	0	3	1	0	0	4	4	1	0	120	13	1	0	135	135
P/TOT	0	0	95	7	0	0	102	102	0	0	16	2	0	0	18	18	2	1	375	38	6	0	422	426

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	7	1	0	0	8	8	0	0	6	0	0	0	6	6	0	0	40	9	0	0	49	49
16:15	0	0	15	0	0	0	15	15	0	0	4	0	0	0	4	4	0	0	48	5	0	1	54	55
16:30	0	0	13	2	0	0	15	15	0	0	6	1	0	0	7	7	0	0	60	3	0	0	63	63
16:45	0	0	8	0	0	0	8	8	0	0	3	0	0	0	3	3	1	0	48	1	1	0	51	51
H/TOT	0	0	43	3	0	0	46	46	0	0	19	1	0	0	20	20	1	0	196	18	1	1	217	218
17:00	0	0	8	2	0	0	10	10	0	0	6	0	0	0	6	6	0	0	69	1	0	0	70	70
17:15	0	0	11	1	0	0	12	12	0	0	3	0	0	0	3	3	0	0	53	6	0	0	59	59
17:30	0	0	15	2	0	0	17	17	0	0	3	0	0	0	3	3	0	0	44	4	0	0	48	48
17:45	0	0	12	0	0	0	12	12	0	0	7	0	0	0	7	7	0	0	67	5	0	0	72	72
H/TOT	0	0	46	5	0	0	51	51	0	0	19	0	0	0	19	19	0	0	233	16	0	0	249	249
18:00	0	1	13	0	0	0	14	13	0	0	6	0	0	0	6	6	0	1	54	4	0	0	59	58
18:15	0	0	15	1	0	0	16	16	0	0	3	2	0	0	5	5	0	1	38	2	1	0	42	42
18:30	0	0	10	0	0	0	10	10	0	0	5	1	0	0	6	6	0	0	48	3	0	0	51	51
18:45	0	0	12	0	0	0	12	12	0	0	2	1	0	0	3	3	0	0	53	2	0	0	55	55
H/TOT	0	1	50	1	0	0	52	51	0	0	16	4	0	0	20	20	0	2	193	11	1	0	207	207
P/TOT	0	1	139	9	0	0	149	148	0	0	54	5	0	0	59	59	1	2	622	45	2	1	673	674

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 02 DATE: 9th September 2021

LOCATION: Fonthill Road/Liffey Valley Motor Hall Roundabout DAY: Thursday

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	18	2	0	0	20	20	1	0	64	14	1	5	85	90	0	0	1	1	0	0	2	2
07:15	0	0	38	4	1	0	43	44	2	0	80	20	5	1	108	112	0	0	1	1	0	0	2	2
07:30	0	0	41	1	0	0	42	42	0	0	123	15	6	2	146	154	0	0	4	0	0	0	4	4
07:45	0	0	42	4	0	0	46	46	1	1	155	20	3	4	184	190	0	0	2	0	1	0	3	4
H/TOT	0	0	139	11	1	0	151	152	4	1	422	69	15	12	523	546	0	0	8	2	1	0	11	12
08:00	0	0	56	5	1	0	62	63	1	3	125	25	7	1	162	167	0	0	10	2	0	0	12	12
08:15	0	0	67	4	0	0	71	71	0	0	155	14	3	4	176	183	0	0	12	1	0	0	13	13
08:30	0	0	51	0	1	0	52	53	1	0	166	17	3	3	190	195	0	0	25	1	1	2	29	32
08:45	0	1	59	3	0	0	63	62	0	1	189	17	8	3	218	228	0	0	19	1	0	0	20	20
H/TOT	0	1	233	12	2	0	248	249	2	4	635	73	21	11	746	774	0	0	66	5	1	2	74	77
09:00	0	1	47	4	0	0	52	51	0	0	184	12	4	1	201	206	0	0	9	0	0	0	9	9
09:15	0	0	55	5	0	0	60	60	0	0	252	18	6	3	279	288	0	0	10	1	0	0	11	11
09:30	0	0	37	4	0	0	41	41	0	0	225	15	4	3	247	254	0	0	5	1	0	0	6	6
09:45	0	0	35	5	0	0	40	40	0	0	257	12	5	4	278	287	0	0	2	0	0	0	2	2
H/TOT	0	1	174	18	0	0	193	192	0	0	918	57	19	11	1005	1035	0	0	26	2	0	0	28	28
P/TOT	0	2	546	41	3	0	592	594	6	5	1975	199	55	34	2274	2355	0	0	100	9	2	2	113	117

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	1	46	0	1	0	48	48	0	2	189	14	2	4	211	216	0	0	16	4	1	1	22	24
16:15	0	0	32	4	0	0	36	36	0	0	198	10	4	3	215	222	0	0	11	3	0	0	14	14
16:30	0	0	40	1	0	0	41	41	0	0	174	16	0	4	194	198	0	0	20	4	0	0	24	24
16:45	0	0	49	2	0	0	51	51	1	1	193	17	2	2	216	219	0	0	6	3	0	0	9	9
H/TOT	0	1	167	7	1	0	176	176	1	3	754	57	8	13	836	854	0	0	53	14	1	1	69	71
17:00	0	0	43	1	0	0	44	44	0	0	218	12	1	3	234	238	0	0	9	1	0	0	10	10
17:15	0	0	42	4	0	0	46	46	0	1	213	14	3	1	232	235	0	0	6	2	0	0	8	8
17:30	0	0	40	4	0	0	44	44	1	1	245	11	3	1	262	265	0	0	7	5	1	0	13	14
17:45	0	0	50	2	0	0	52	52	0	0	212	14	0	2	228	230	0	0	21	1	0	0	22	22
H/TOT	0	0	175	11	0	0	186	186	1	2	888	51	7	7	956	968	0	0	43	9	1	0	53	54
18:00	0	0	49	4	0	0	53	53	0	0	262	22	0	2	286	288	0	0	17	0	0	0	17	17
18:15	0	0	51	3	0	0	54	54	0	2	229	16	2	1	250	252	0	0	7	0	1	0	8	9
18:30	0	0	39	5	0	0	44	44	0	0	233	12	0	2	247	249	0	0	12	1	0	0	13	13
18:45	0	0	42	3	0	0	45	45	0	0	262	18	1	4	285	290	0	0	8	4	0	0	12	12
H/TOT	0	0	181	15	0	0	196	196	0	2	986	68	3	9	1068	1079	0	0	44	5	1	0	50	51
P/TOT	0	1	523	33	1	0	558	558	2	7	2628	176	18	29	2860	2901	0	0	140	28	3	1	172	176

SITE: 02 DATE: 9th September 2021

LOCATION: Fonthill Road/Liffey Valley Motor Hall Roundabout DAY: Thursday

	MOVEMENT 7								MOVEMENT 8								MOVEMENT 9							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	5	7	0	0	12	12	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:15	0	0	6	1	0	1	8	9	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
07:30	0	0	5	2	0	0	7	7	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
07:45	0	0	6	2	0	0	8	8	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
H/TOT	0	0	22	12	0	1	35	36	0	0	6	0	0	0	6	6	0	0	3	0	0	0	3	3
08:00	0	0	11	3	0	0	14	14	1	0	4	0	0	0	5	4	0	0	4	0	0	0	4	4
08:15	0	0	6	2	0	0	8	8	0	0	1	0	0	0	1	1	0	0	3	0	0	0	3	3
08:30	0	0	15	1	1	0	17	18	0	0	1	0	0	0	1	1	0	0	6	1	0	0	7	7
08:45	0	0	11	2	0	3	16	19	0	0	3	1	0	0	4	4	0	0	7	0	0	0	7	7
H/TOT	0	0	43	8	1	3	55	59	1	0	9	1	0	0	11	10	0	0	20	1	0	0	21	21
09:00	0	0	14	1	1	0	16	17	0	0	5	0	0	0	5	5	0	0	5	0	0	0	5	5
09:15	0	0	4	2	0	0	6	6	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2
09:30	0	0	4	0	0	0	4	4	0	0	2	0	0	0	2	2	0	0	2	1	0	0	3	3
09:45	0	0	2	1	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	24	4	1	0	29	30	0	0	8	0	0	0	8	8	0	0	10	1	0	0	11	11
P/TOT	0	0	89	24	2	4	119	125	1	0	23	1	0	0	25	24	0	0	33	2	0	0	35	35

	MOVEMENT 7								MOVEMENT 8								MOVEMENT 9							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	5	1	0	0	6	6	0	0	4	0	0	0	4	4	0	0	3	0	0	0	3	3
16:15	0	0	8	2	0	0	10	10	0	0	3	0	0	0	3	3	0	0	1	0	0	0	1	1
16:30	0	0	8	2	0	1	11	12	0	0	4	0	0	0	4	4	0	0	2	0	0	0	2	2
16:45	0	0	14	0	0	0	14	14	0	0	5	0	0	0	5	5	0	0	2	0	0	0	2	2
H/TOT	0	0	35	5	0	1	41	42	0	0	16	0	0	0	16	16	0	0	8	0	0	0	8	8
17:00	0	0	5	3	1	0	9	10	0	0	5	0	0	0	5	5	0	0	5	0	0	0	5	5
17:15	0	0	12	3	0	0	15	15	0	0	5	0	0	0	5	5	0	0	2	0	0	0	2	2
17:30	0	0	11	1	0	0	12	12	0	0	5	1	0	0	6	6	0	0	4	0	0	0	4	4
17:45	0	0	7	1	0	0	8	8	0	0	6	0	0	0	6	6	0	0	2	0	0	0	2	2
H/TOT	0	0	35	8	1	0	44	45	0	0	21	1	0	0	22	22	0	0	13	0	0	0	13	13
18:00	0	0	6	2	1	0	9	10	0	0	4	0	0	0	4	4	0	0	5	0	0	0	5	5
18:15	0	0	7	2	0	0	9	9	0	0	4	2	0	0	6	6	0	0	6	0	0	0	6	6
18:30	0	0	5	1	1	0	7	8	0	0	5	0	0	0	5	5	0	0	5	0	0	0	5	5
18:45	0	0	13	0	0	0	13	13	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2
H/TOT	0	0	31	5	2	0	38	40	0	0	14	2	0	0	16	16	0	0	18	0	0	0	18	18
P/TOT	0	0	101	18	3	1	123	127	0	0	51	3	0	0	54	54	0	0	39	0	0	0	39	39

LIFFEY VALLEY TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2021
TRA/21/148

SITE: 04 DATE: 9th September 2021

LOCATION: Liffey Valley Shopping Centre Roundabout DAY: Thursday

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:30	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:45	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1
H/TOT	0	0	3	1	0	0	4	4	0	0	2	0	0	0	2	2	0	0	4	0	0	0	4	4
08:00	1	0	5	0	0	0	6	5	0	0	2	0	0	0	2	2	0	0	4	0	0	0	4	4
08:15	0	0	2	0	0	0	2	2	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1
08:30	0	0	4	0	0	0	4	4	0	0	5	0	0	0	5	5	0	0	3	0	0	0	3	3
08:45	0	0	4	0	0	0	4	4	0	0	3	0	0	0	3	3	0	0	1	0	1	0	2	3
H/TOT	1	0	15	0	0	0	16	15	0	0	12	0	0	0	12	12	0	0	9	0	1	0	10	11
09:00	0	0	4	2	0	0	6	6	0	0	6	1	0	0	7	7	0	0	1	0	0	0	1	1
09:15	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	0	0	1	0	0	1	1
09:30	0	0	3	0	0	0	3	3	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1
09:45	0	0	7	0	0	0	7	7	0	0	3	0	0	0	3	3	0	0	0	1	0	0	1	1
H/TOT	0	0	15	2	0	0	17	17	0	0	12	1	0	0	13	13	0	0	2	2	0	0	4	4
P/TOT	1	0	33	3	0	0	37	36	0	0	26	1	0	0	27	27	0	0	15	2	1	0	18	19

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	8	0	0	0	8	8	0	0	2	0	0	0	2	2	0	0	2	0	0	0	2	2
16:15	0	0	4	0	0	0	4	4	0	0	5	0	0	0	5	5	0	0	2	1	0	0	3	3
16:30	0	0	4	0	0	0	4	4	0	0	3	0	0	0	3	3	0	0	2	0	0	0	2	2
16:45	0	0	5	0	0	0	5	5	0	0	3	0	0	0	3	3	0	1	1	0	0	0	2	1
H/TOT	0	0	21	0	0	0	21	21	0	0	13	0	0	0	13	13	0	1	7	1	0	0	9	8
17:00	0	0	11	1	0	0	12	12	0	0	2	0	0	0	2	2	0	0	6	0	0	0	6	6
17:15	0	0	3	0	0	0	3	3	0	0	4	0	0	0	4	4	0	0	4	0	0	0	4	4
17:30	0	0	2	0	0	0	2	2	0	0	3	0	0	0	3	3	0	0	4	1	0	0	5	5
17:45	0	0	3	0	0	0	3	3	0	0	3	0	0	0	3	3	0	0	3	0	0	0	3	3
H/TOT	0	0	19	1	0	0	20	20	0	0	12	0	0	0	12	12	0	0	17	1	0	0	18	18
18:00	0	0	2	0	0	0	2	2	0	0	6	0	0	0	6	6	0	0	1	0	0	0	1	1
18:15	0	0	3	0	0	0	3	3	0	0	3	0	0	0	3	3	0	0	2	0	0	0	2	2
18:30	0	0	2	1	0	0	3	3	0	0	3	0	0	0	3	3	0	0	2	0	0	0	2	2
18:45	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2
H/TOT	0	0	9	1	0	0	10	10	0	0	13	0	0	0	13	13	0	0	7	0	0	0	7	7
P/TOT	0	0	49	2	0	0	51	51	0	0	38	0	0	0	38	38	0	1	31	2	0	0	34	33

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 04 DATE: 9th September 2021

LOCATION: Liffey Valley Shopping Centre Roundabout DAY: Thursday

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	1	0	0	0	1	1	0	0	5	2	0	0	7	7	0	0	6	2	0	1	9	10
07:15	0	0	5	0	0	0	5	5	2	0	10	4	0	0	16	14	0	0	5	2	0	0	7	7
07:30	0	0	1	1	0	0	2	2	0	0	7	2	0	0	9	9	0	0	11	3	1	0	15	16
07:45	0	0	0	0	0	0	0	0	0	0	10	1	1	0	12	13	0	0	13	0	0	0	13	13
H/TOT	0	0	7	1	0	0	8	8	2	0	32	9	1	0	44	43	0	0	35	7	1	1	44	46
08:00	0	0	6	0	0	0	6	6	1	0	8	2	1	0	12	12	0	0	19	5	0	0	24	24
08:15	0	0	8	0	0	0	8	8	0	0	8	2	0	1	11	12	0	0	32	3	0	0	35	35
08:30	0	0	4	1	0	0	5	5	1	0	18	2	0	0	21	20	0	0	47	4	0	0	51	51
08:45	1	0	5	0	0	0	6	5	0	0	15	0	1	0	16	17	0	1	77	3	0	0	81	80
H/TOT	1	0	23	1	0	0	25	24	2	0	49	6	2	1	60	61	0	1	175	15	0	0	191	190
09:00	0	0	0	1	0	0	1	1	0	0	18	2	0	0	20	20	0	0	85	2	0	1	88	89
09:15	0	0	3	2	0	0	5	5	0	0	49	2	1	0	52	53	0	0	96	4	1	0	101	102
09:30	0	0	2	0	0	0	2	2	0	0	45	1	0	0	46	46	0	0	123	7	0	0	130	130
09:45	0	0	1	1	0	0	2	2	0	0	60	5	1	0	66	67	0	0	118	4	2	1	125	128
H/TOT	0	0	6	4	0	0	10	10	0	0	172	10	2	0	184	186	0	0	422	17	3	2	444	449
P/TOT	1	0	36	6	0	0	43	42	4	0	253	25	5	1	288	291	0	1	632	39	4	3	679	685

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	11	0	0	0	11	11	0	0	31	0	0	0	31	31	0	0	105	10	0	0	115	115
16:15	0	0	11	1	0	1	13	14	0	0	35	0	1	0	36	37	0	0	105	2	0	0	107	107
16:30	0	0	3	0	0	0	3	3	0	0	32	1	0	0	33	33	0	0	121	5	0	0	126	126
16:45	0	0	3	0	0	0	3	3	0	0	40	2	0	0	42	42	0	1	135	5	0	1	142	142
H/TOT	0	0	28	1	0	1	30	31	0	0	138	3	1	0	142	143	0	1	466	22	0	1	490	490
17:00	0	0	7	1	0	0	8	8	0	0	42	2	0	0	44	44	0	1	120	5	0	0	126	125
17:15	0	0	6	0	0	0	6	6	0	0	57	0	0	0	57	57	0	0	110	8	1	0	119	120
17:30	0	0	8	1	0	0	9	9	0	0	49	2	0	0	51	51	0	0	107	9	1	0	117	118
17:45	0	0	18	3	0	0	21	21	0	0	41	0	0	0	41	41	0	0	123	3	0	0	126	126
H/TOT	0	0	39	5	0	0	44	44	0	0	189	4	0	0	193	193	0	1	460	25	2	0	488	489
18:00	0	0	13	0	0	0	13	13	0	0	43	1	0	0	44	44	0	0	155	8	1	0	164	165
18:15	0	0	6	0	0	0	6	6	0	2	54	2	0	0	58	57	0	0	127	7	0	0	134	134
18:30	0	0	1	0	0	0	1	1	0	0	41	0	0	0	41	41	0	0	150	10	0	0	160	160
18:45	0	0	3	0	0	0	3	3	0	0	52	0	1	0	53	54	0	0	147	7	0	0	154	154
H/TOT	0	0	23	0	0	0	23	23	0	2	190	3	1	0	196	196	0	0	579	32	1	0	612	613
P/TOT	0	0	90	6	0	1	97	98	0	2	517	10	2	0	531	532	0	2	1505	79	3	1	1590	1593

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 04 DATE: 9th September 2021

LOCATION: Liffey Valley Shopping Centre Roundabout DAY: Thursday

	MOVEMENT 7								MOVEMENT 8								MOVEMENT 9							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:15	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	2	1	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	4	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:00	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	1	2	0	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	2	0	0	0	2	2	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1
08:45	0	0	3	2	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	5	3	3	0	11	14	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1
09:00	0	0	3	0	0	0	3	3	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
09:15	0	0	5	1	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	9	0	2	0	11	13	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
09:45	0	0	15	1	1	0	17	18	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
H/TOT	0	0	32	2	3	0	37	40	0	0	2	0	0	0	2	2	0	0	2	0	0	0	2	2
P/TOT	0	0	40	9	6	0	55	61	0	0	4	0	0	0	4	4	0	0	3	1	0	0	4	4

	MOVEMENT 7								MOVEMENT 8								MOVEMENT 9							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	30	2	0	1	33	34	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
16:15	0	0	29	1	0	0	30	30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
16:30	1	1	26	1	0	0	29	28	0	0	1	0	0	0	1	1	0	0	4	1	0	0	5	5
16:45	0	0	32	2	0	0	34	34	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
H/TOT	1	1	117	6	0	1	126	126	0	0	2	0	0	0	2	2	0	0	9	1	0	0	10	10
17:00	0	0	31	4	0	1	36	37	0	0	1	0	0	0	1	1	0	0	3	0	0	0	3	3
17:15	0	0	23	2	0	0	25	25	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
17:30	0	0	35	2	0	1	38	39	0	0	2	0	0	0	2	2	0	0	3	0	0	0	3	3
17:45	0	0	39	2	0	0	41	41	0	0	3	0	0	0	3	3	0	0	2	0	0	0	2	2
H/TOT	0	0	128	10	0	2	140	142	0	0	7	0	0	0	7	7	0	0	9	0	0	0	9	9
18:00	0	0	27	0	1	0	28	29	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
18:15	0	0	31	1	0	0	32	32	0	0	2	0	0	0	2	2	0	0	3	0	0	0	3	3
18:30	0	0	39	0	0	0	39	39	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
18:45	0	0	25	1	0	0	26	26	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
H/TOT	0	0	122	2	1	0	125	126	0	0	2	0	0	0	2	2	0	0	13	0	0	0	13	13
P/TOT	1	1	367	18	1	3	391	394	0	0	11	0	0	0	11	11	0	0	31	1	0	0	32	32

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 04 DATE: 9th September 2021

LOCATION: Liffey Valley Shopping Centre Roundabout DAY: Thursday

	MOVEMENT 10								MOVEMENT 11								MOVEMENT 12							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	1	0	0	0	0	0	1	0	0	0	2	1	0	0	3	3	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	4	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	4	1	1	0	6	7	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	5	2	0	0	7	7	0	0	2	0	0	0	2	2
H/TOT	1	0	0	0	0	0	1	0	0	0	14	5	1	0	20	21	0	0	2	0	0	0	2	2
08:00	0	0	0	1	0	0	1	1	1	0	11	2	0	0	14	13	0	0	1	0	0	0	1	1
08:15	0	0	1	0	0	0	1	1	0	0	3	1	0	0	4	4	0	0	1	0	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	5	0	0	1	0	0	0	1	1
08:45	0	0	1	0	0	0	1	1	1	0	11	0	2	0	14	15	0	0	1	0	0	0	1	1
H/TOT	0	0	2	1	0	0	3	3	2	0	28	5	2	0	37	37	0	0	4	0	0	0	4	4
09:00	0	0	2	0	0	0	2	2	0	0	16	4	0	0	20	20	0	0	2	0	0	0	2	2
09:15	0	0	4	0	0	0	4	4	0	0	26	7	0	0	33	33	0	0	0	0	0	0	0	0
09:30	0	0	2	0	1	0	3	4	0	0	26	4	2	0	32	34	0	0	0	1	0	0	1	1
09:45	0	0	7	0	0	0	7	7	0	0	31	2	0	0	33	33	0	0	3	0	0	0	3	3
H/TOT	0	0	15	0	1	0	16	17	0	0	99	17	2	0	118	120	0	0	5	1	0	0	6	6
P/TOT	1	0	17	1	1	0	20	20	2	0	141	27	5	0	175	178	0	0	11	1	0	0	12	12

	MOVEMENT 10								MOVEMENT 11								MOVEMENT 12							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	5	1	0	0	6	6	1	0	105	7	0	0	113	112	0	0	7	0	0	0	7	7
16:15	0	0	9	1	0	0	10	10	0	0	83	8	0	0	91	91	0	0	6	0	0	0	6	6
16:30	0	0	16	3	0	0	19	19	1	0	104	7	2	0	114	115	0	0	3	0	0	0	3	3
16:45	0	0	11	0	0	0	11	11	0	1	109	2	0	0	112	111	0	0	5	0	0	0	5	5
H/TOT	0	0	41	5	0	0	46	46	2	1	401	24	2	0	430	430	0	0	21	0	0	0	21	21
17:00	1	0	35	0	0	0	36	35	0	0	112	6	0	1	119	120	0	0	9	0	0	0	9	9
17:15	0	0	7	0	0	0	7	7	0	0	110	6	0	0	116	116	0	0	5	0	0	0	5	5
17:30	0	0	13	0	0	0	13	13	0	0	120	5	0	0	125	125	0	0	9	0	0	0	9	9
17:45	0	0	14	1	0	0	15	15	0	0	114	2	0	0	116	116	0	0	6	0	0	0	6	6
H/TOT	1	0	69	1	0	0	71	70	0	0	456	19	0	1	476	477	0	0	29	0	0	0	29	29
18:00	0	0	10	0	0	0	10	10	0	0	92	4	0	0	96	96	0	0	8	2	0	0	10	10
18:15	0	0	8	0	0	0	8	8	0	1	116	2	0	0	119	118	0	0	4	0	0	0	4	4
18:30	0	0	7	2	0	0	9	9	1	0	99	1	1	0	102	102	0	0	1	0	0	0	1	1
18:45	0	0	10	1	0	0	11	11	0	0	109	6	0	0	115	115	0	0	5	1	0	0	6	6
H/TOT	0	0	35	3	0	0	38	38	1	1	416	13	1	0	432	432	0	0	18	3	0	0	21	21
P/TOT	1	0	145	9	0	0	155	154	3	2	1273	56	3	1	1338	1338	0	0	68	3	0	0	71	71

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 05 DATE: 9th September 2021

LOCATION: Liffey Valley Office Campus DAY: Thursday

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
H/TOT	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
08:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	3	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	18	0	0	0	18	18
09:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	3	0	0	0	4	3
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
09:30	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
09:45	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	1	1	0	0	2	2	0	0	2	0	0	0	2	2	1	0	8	0	0	0	9	8
P/TOT	0	0	2	1	0	0	3	3	0	0	3	0	0	0	3	3	1	0	29	0	0	0	30	29

	MOVEMENT 1								MOVEMENT 2								MOVEMENT 3							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	1	0	0	0	1	1	0	0	4	0	0	0	4	4	0	0	1	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	1	1	0	0	13	0	0	0	13	13	0	0	1	0	0	0	1	1
17:00	0	0	2	0	0	0	2	2	0	0	4	0	0	0	4	4	0	0	1	0	0	0	1	1
17:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1
17:30	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
H/TOT	0	0	3	0	0	0	3	3	0	0	12	0	0	0	12	12	0	0	2	0	0	0	2	2
18:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	0	0	0	2	2	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
P/TOT	0	0	6	0	0	0	6	6	0	0	28	0	0	0	28	28	0	0	3	0	0	0	3	3

LIFFEY VALLEY TRAFFIC COUNTS **SEPTEMBER 2021**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **TRA/21/148**

SITE: 05 DATE: 9th September 2021

LOCATION: Liffey Valley Office Campus DAY: Thursday

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
07:00	0	0	1	1	0	0	2	2	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
07:15	0	0	1	0	0	0	1	1	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0
07:30	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
07:45	0	0	4	0	0	0	4	4	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
H/TOT	0	0	8	1	0	0	9	9	0	0	8	0	0	0	8	8	0	0	1	1	0	0	2	2
08:00	1	0	11	0	0	0	12	11	0	0	6	0	0	0	6	6	0	0	1	0	0	0	1	1
08:15	0	0	5	0	0	0	5	5	0	0	8	0	0	0	8	8	0	0	1	0	0	0	1	1
08:30	0	0	12	0	0	0	12	12	0	0	7	1	0	0	8	8	0	0	0	0	0	0	0	0
08:45	0	0	8	0	1	0	9	10	1	0	5	0	0	0	6	5	0	0	1	0	0	0	1	1
H/TOT	1	0	36	0	1	0	38	38	1	0	26	1	0	0	28	27	0	0	3	0	0	0	3	3
09:00	0	0	11	3	0	0	14	14	0	0	3	1	0	0	4	4	0	0	0	0	0	0	0	0
09:15	0	0	2	1	0	0	3	3	0	0	1	0	0	0	1	1	0	0	2	2	0	0	4	4
09:30	0	0	5	0	0	0	5	5	0	0	1	1	0	0	2	2	0	0	1	0	0	0	1	1
09:45	0	0	10	0	0	0	10	10	0	0	5	1	0	0	6	6	0	0	0	0	0	0	0	0
H/TOT	0	0	28	4	0	0	32	32	0	0	10	3	0	0	13	13	0	0	3	2	0	0	5	5
P/TOT	1	0	72	5	1	0	79	79	1	0	44	4	0	0	49	48	0	0	7	3	0	0	10	10

	MOVEMENT 4								MOVEMENT 5								MOVEMENT 6							
TIME	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU	PCL	MCL	CAR	LGV	HGV	BUS	TOT	PCU
16:00	0	0	11	0	0	0	11	11	0	0	18	0	0	0	18	18	0	0	0	0	0	0	0	0
16:15	0	0	11	1	0	0	12	12	0	0	16	1	0	1	18	19	0	0	1	0	0	0	1	1
16:30	0	0	9	0	0	0	9	9	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0
16:45	0	1	9	0	0	0	10	9	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0
H/TOT	0	1	40	1	0	0	42	41	0	0	48	1	0	1	50	51	0	0	1	0	0	0	1	1
17:00	0	0	17	1	0	0	18	18	0	0	16	1	0	0	17	17	0	0	0	0	0	0	0	0
17:15	0	0	11	0	0	0	11	11	0	0	11	0	0	0	11	11	0	0	0	0	0	0	0	0
17:30	0	0	8	1	0	0	9	9	0	0	19	1	0	0	20	20	0	0	0	0	0	0	0	0
17:45	0	0	9	0	0	0	9	9	0	0	24	3	0	0	27	27	0	0	0	0	0	0	0	0
H/TOT	0	0	45	2	0	0	47	47	0	0	70	5	0	0	75	75	0	0	0	0	0	0	0	0
18:00	0	0	9	0	0	0	9	9	0	0	22	2	0	0	24	24	0	0	0	0	0	0	0	0
18:15	0	0	8	0	0	0	8	8	0	0	10	0	0	0	10	10	0	0	0	0	0	0	0	0
18:30	0	0	6	1	0	0	7	7	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
18:45	0	0	4	0	0	0	4	4	0	0	9	1	0	0	10	10	0	0	0	0	0	0	0	0
H/TOT	0	0	27	1	0	0	28	28	0	0	43	3	0	0	46	46	0	0	0	0	0	0	0	0
P/TOT	0	1	112	4	0	0	117	116	0	0	161	9	0	1	171	172	0	0	1	0	0	0	1	1

NRB consulting engineers

APPENDIX C

TRICS Output Data
(Self-Storage Warehousing)

TRIP RATE for Land Use 02 - EMPLOYMENT/E - WAREHOUSING (SELF STORAGE)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	7	3020	0.000	7	3020	0.005	7	3020	0.005
07:30 - 08:00	7	3020	0.057	7	3020	0.024	7	3020	0.081
08:00 - 08:30	7	3020	0.057	7	3020	0.033	7	3020	0.090
08:30 - 09:00	7	3020	0.061	7	3020	0.043	7	3020	0.104
09:00 - 09:30	7	3020	0.085	7	3020	0.052	7	3020	0.137
09:30 - 10:00	7	3020	0.099	7	3020	0.095	7	3020	0.194
10:00 - 10:30	7	3020	0.104	7	3020	0.099	7	3020	0.203
10:30 - 11:00	7	3020	0.057	7	3020	0.071	7	3020	0.128
11:00 - 11:30	7	3020	0.066	7	3020	0.057	7	3020	0.123
11:30 - 12:00	7	3020	0.071	7	3020	0.057	7	3020	0.128
12:00 - 12:30	**7**	**3020**	**0.118**	7	3020	0.099	**7**	**3020**	**0.217**
12:30 - 13:00	7	3020	0.085	**7**	**3020**	**0.104**	7	3020	0.189
13:00 - 13:30	7	3020	0.085	7	3020	0.066	7	3020	0.151
13:30 - 14:00	7	3020	0.090	7	3020	0.076	7	3020	0.166
14:00 - 14:30	7	3020	0.085	7	3020	0.104	7	3020	0.189
14:30 - 15:00	7	3020	0.090	7	3020	0.095	7	3020	0.185
15:00 - 15:30	7	3020	0.076	7	3020	0.085	7	3020	0.161
15:30 - 16:00	7	3020	0.080	7	3020	0.095	7	3020	0.175
16:00 - 16:30	7	3020	0.061	7	3020	0.052	7	3020	0.113
16:30 - 17:00	7	3020	0.047	7	3020	0.066	7	3020	0.113
17:00 - 17:30	7	3020	0.043	7	3020	0.080	7	3020	0.123
17:30 - 18:00	7	3020	0.009	7	3020	0.047	7	3020	0.056
18:00 - 18:30	7	3020	0.009	7	3020	0.028	7	3020	0.037
18:30 - 19:00	7	3020	0.014	7	3020	0.014	7	3020	0.028
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:			1.549			1.547			3.096

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:	1350 - 5500 (units: sqm)
Survey date date range:	01/01/14 - 15/10/21
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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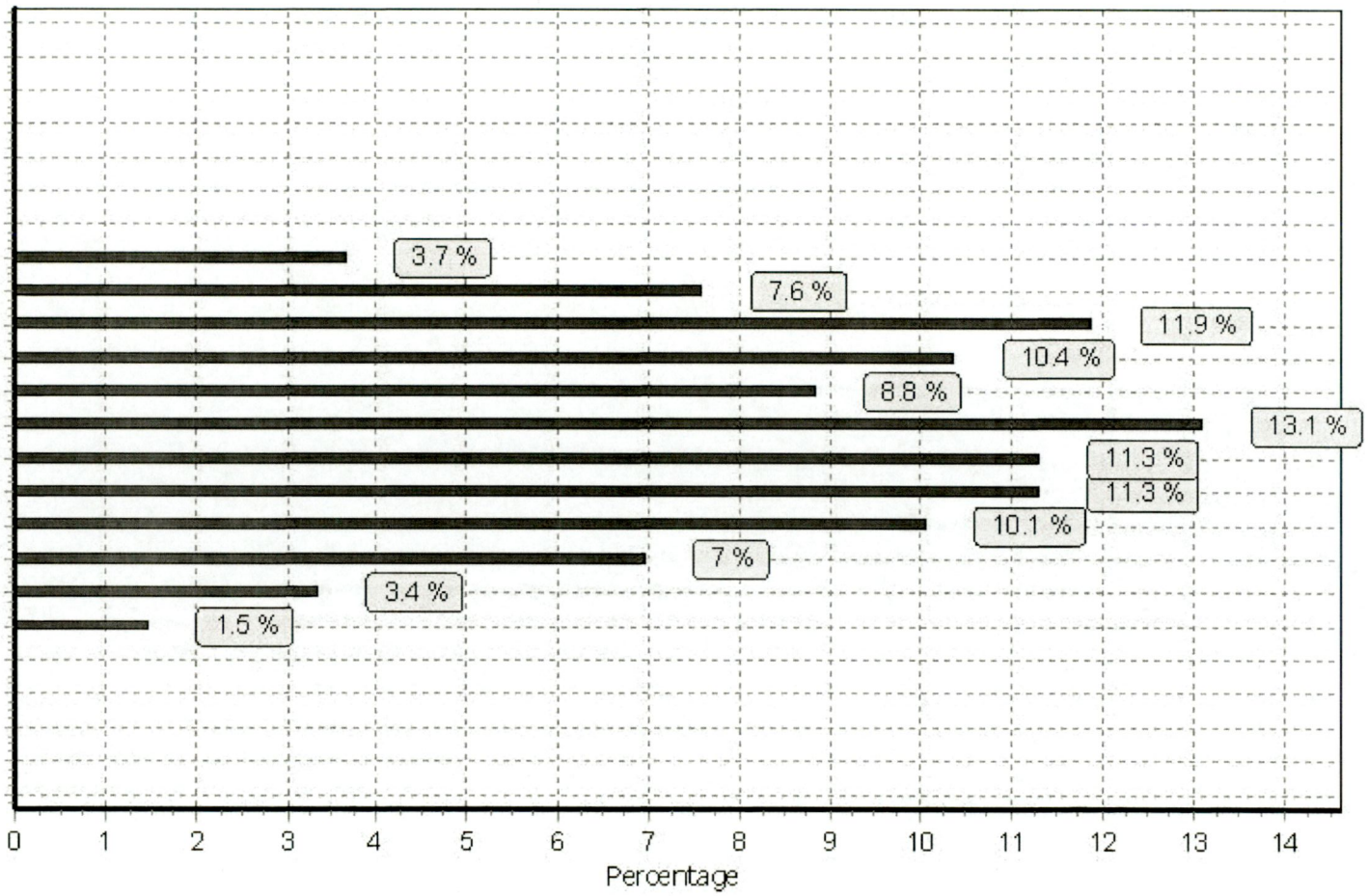
TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.057	3.7
08:00-09:00	0.118	7.6
09:00-10:00	0.184	11.9
10:00-11:00	0.161	10.4
11:00-12:00	0.137	8.8
12:00-13:00	0.203	13.1
13:00-14:00	0.175	11.3
14:00-15:00	0.175	11.3
15:00-16:00	0.156	10.1
16:00-17:00	0.108	7.0
17:00-18:00	0.052	3.4
18:00-19:00	0.023	1.5
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



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.

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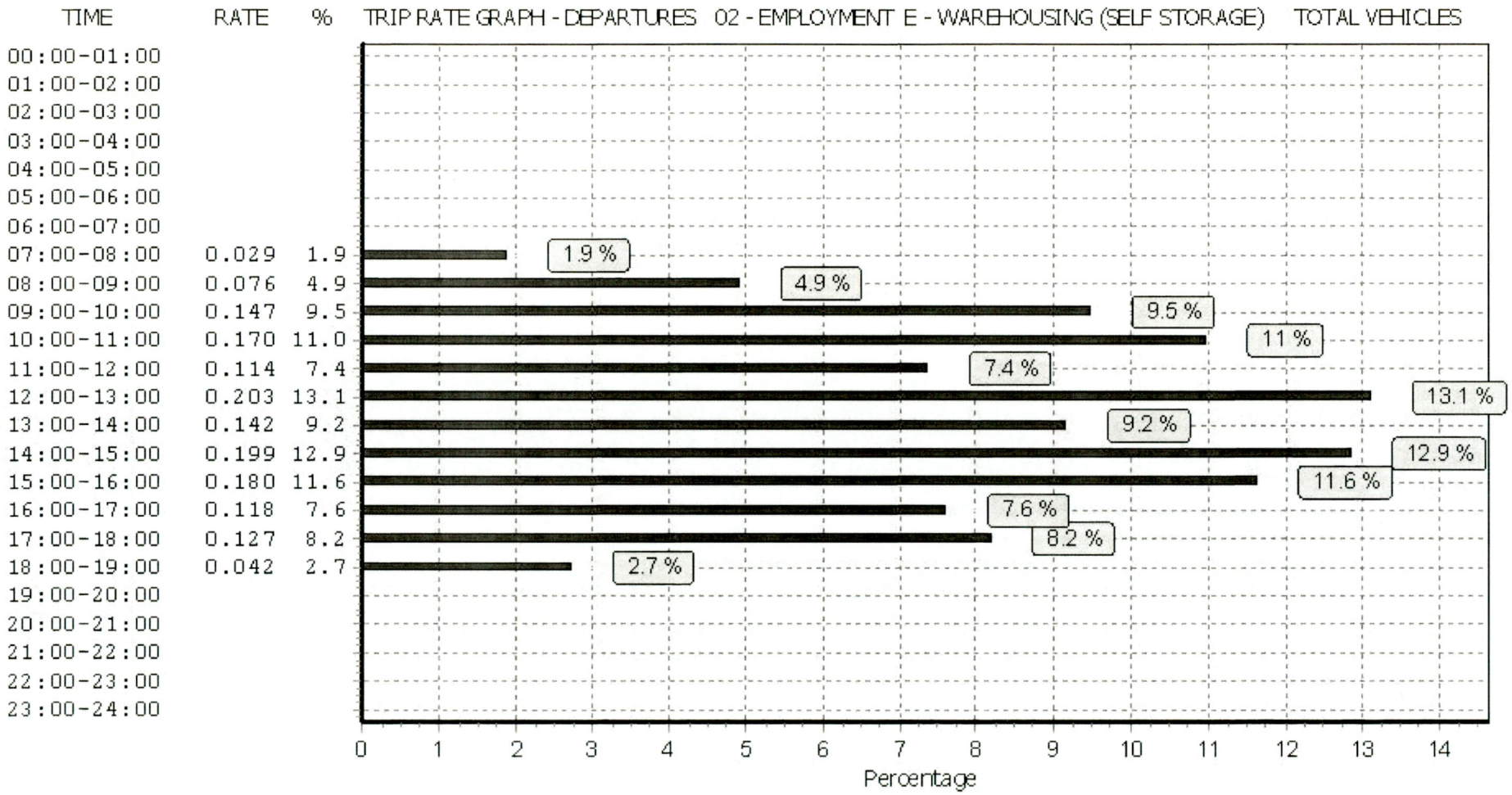

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

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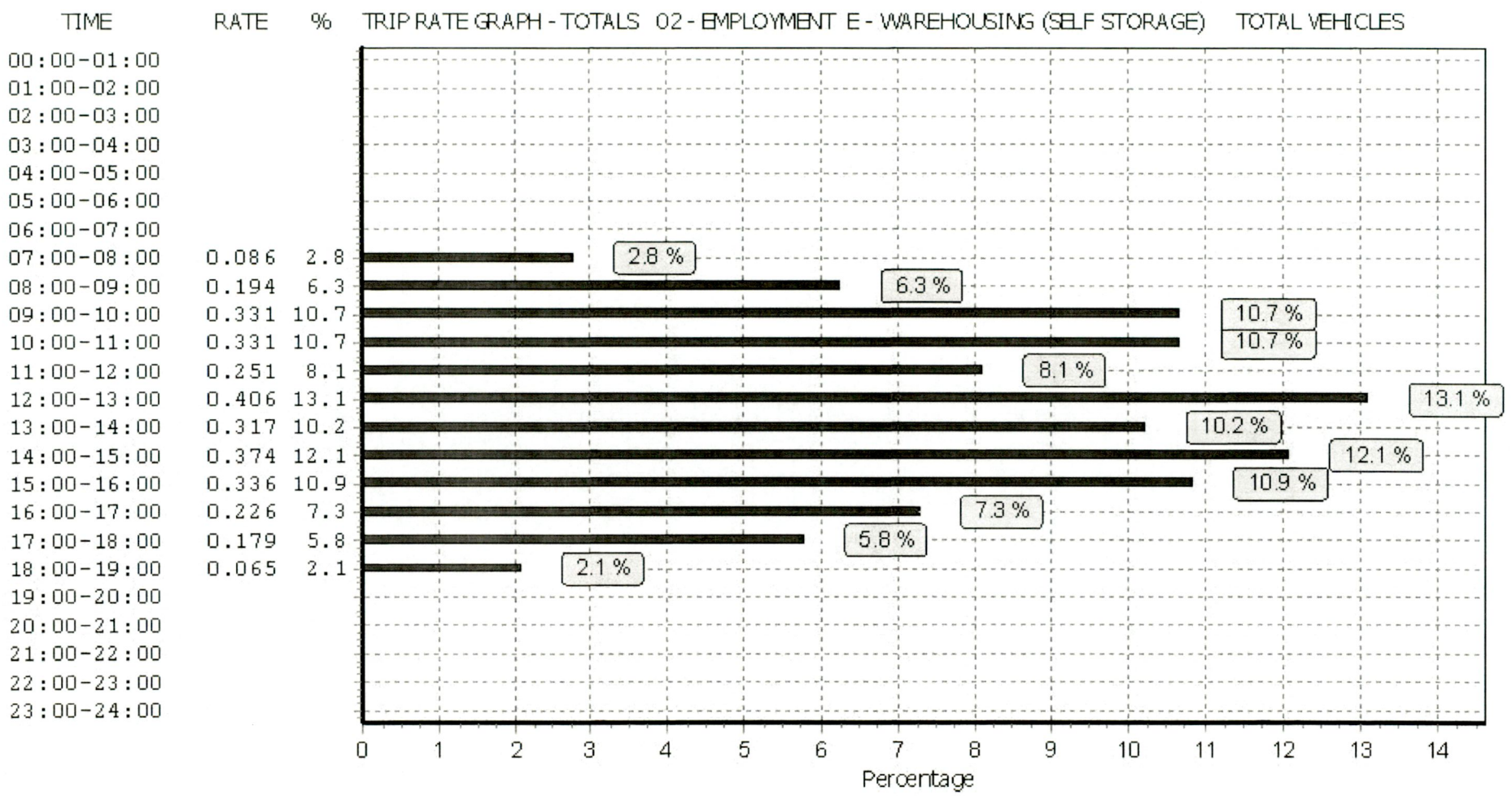

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

TRIP RATE for Land Use 02 - EMPLOYMENT/E - WAREHOUSING (SELF STORAGE)

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	7	3020	0.000	7	3020	0.000	7	3020	0.000
07:30 - 08:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
08:00 - 08:30	7	3020	0.005	7	3020	0.005	7	3020	0.010
08:30 - 09:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
09:00 - 09:30	7	3020	0.000	7	3020	0.005	7	3020	0.005
09:30 - 10:00	**7**	**3020**	**0.014**	**7**	**3020**	**0.009**	**7**	**3020**	**0.023**
10:00 - 10:30	7	3020	0.005	7	3020	0.009	7	3020	0.014
10:30 - 11:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
11:00 - 11:30	7	3020	0.000	7	3020	0.000	7	3020	0.000
11:30 - 12:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
12:00 - 12:30	7	3020	0.005	7	3020	0.005	7	3020	0.010
12:30 - 13:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
13:00 - 13:30	7	3020	0.005	7	3020	0.000	7	3020	0.005
13:30 - 14:00	7	3020	0.000	7	3020	0.005	7	3020	0.005
14:00 - 14:30	7	3020	0.000	7	3020	0.000	7	3020	0.000
14:30 - 15:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
15:00 - 15:30	7	3020	0.005	7	3020	0.005	7	3020	0.010
15:30 - 16:00	7	3020	0.005	7	3020	0.005	7	3020	0.010
16:00 - 16:30	7	3020	0.005	7	3020	0.000	7	3020	0.005
16:30 - 17:00	7	3020	0.000	7	3020	0.005	7	3020	0.005
17:00 - 17:30	7	3020	0.000	7	3020	0.000	7	3020	0.000
17:30 - 18:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
18:00 - 18:30	7	3020	0.005	7	3020	0.000	7	3020	0.005
18:30 - 19:00	7	3020	0.000	7	3020	0.000	7	3020	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.054			0.053			0.107

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.*

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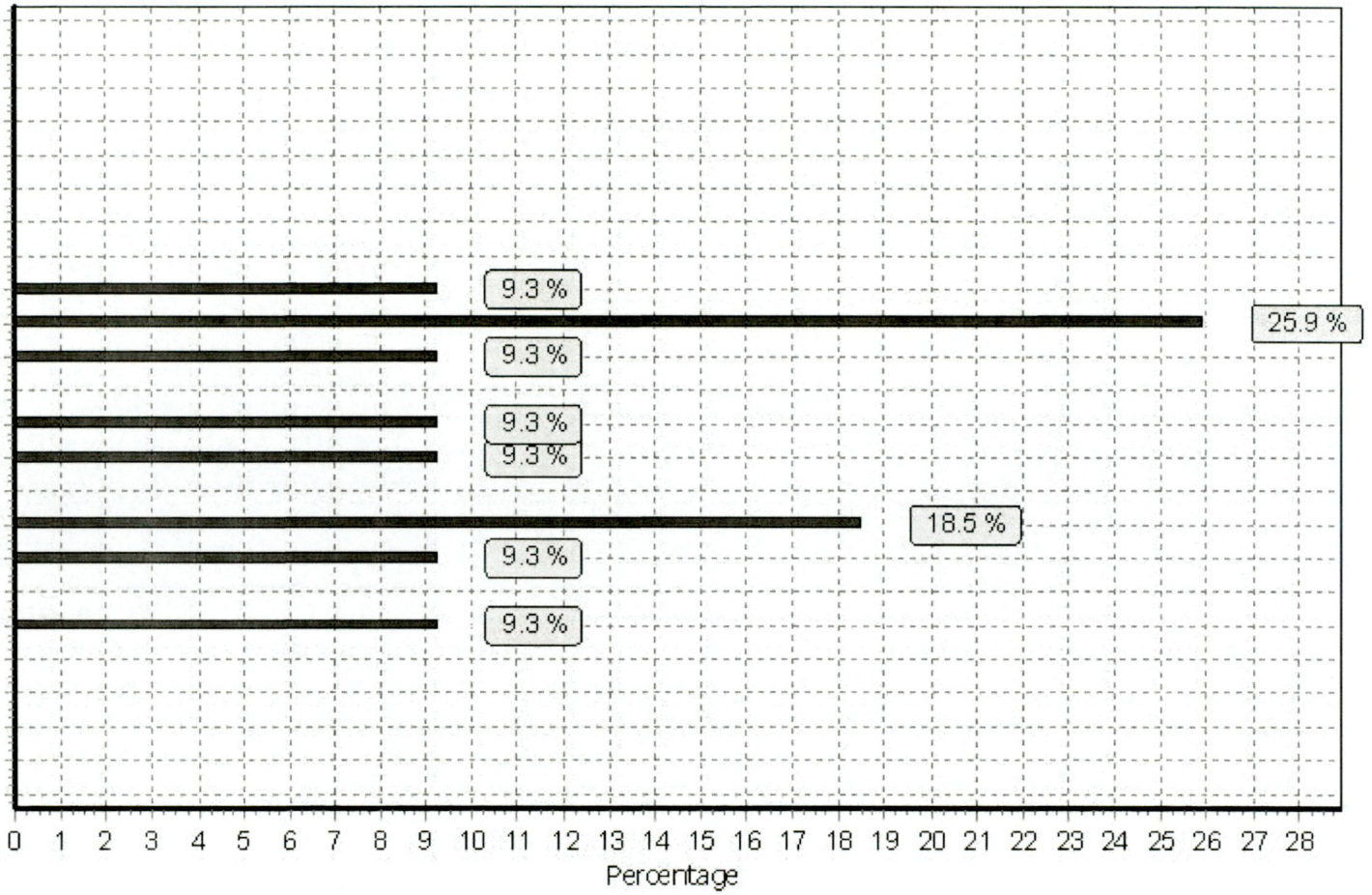
TRIP RATE GRAPH - ARRIVALS 02 - EMPLOYMENT E - WAREHOUSING (SELF STORAGE) OGVS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00		
08:00-09:00	0.005	9.3
09:00-10:00	0.014	25.9
10:00-11:00	0.005	9.3
11:00-12:00		
12:00-13:00	0.005	9.3
13:00-14:00	0.005	9.3
14:00-15:00		
15:00-16:00	0.010	18.5
16:00-17:00	0.005	9.3
17:00-18:00		
18:00-19:00	0.005	9.3
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



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.

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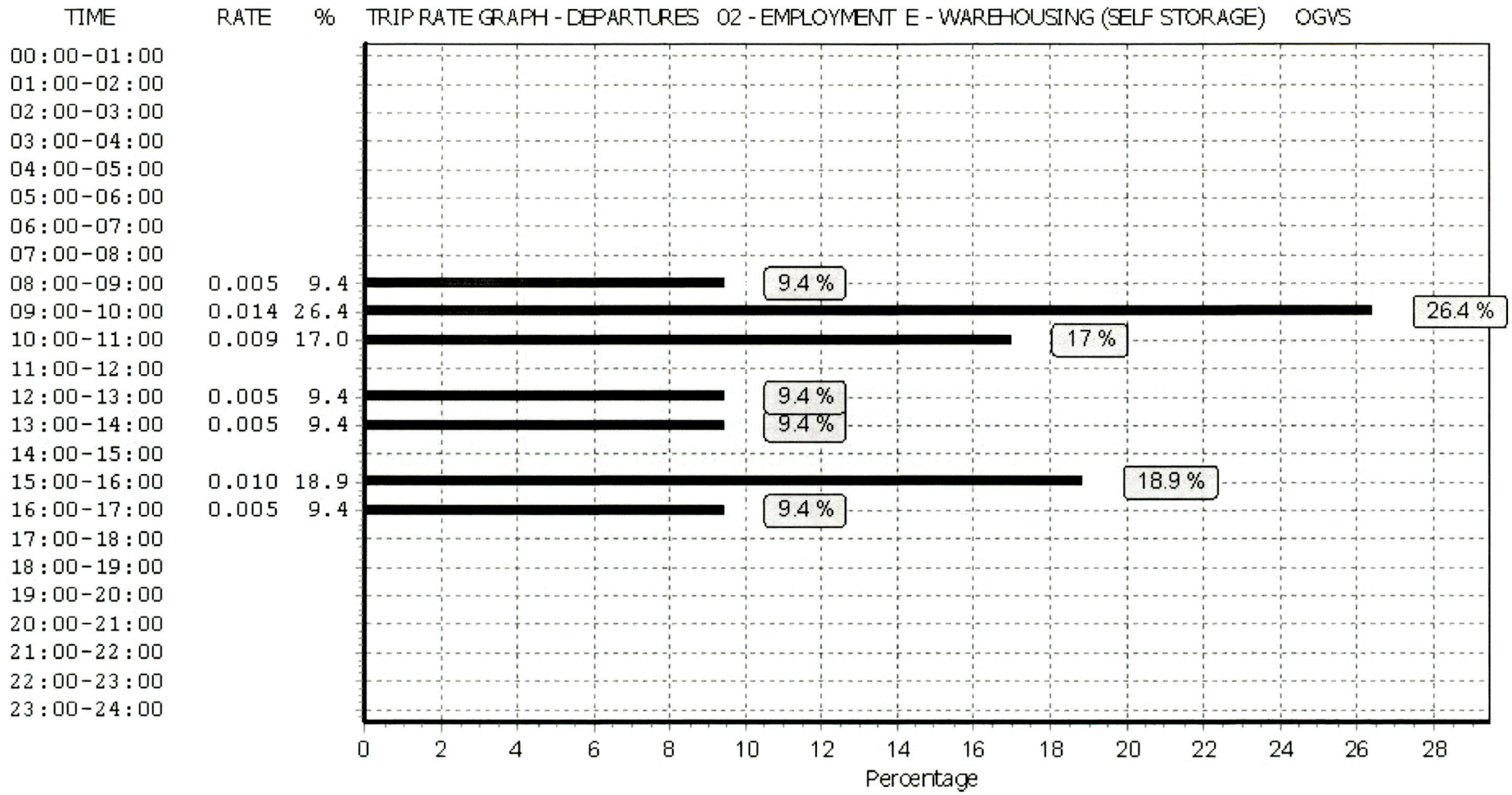
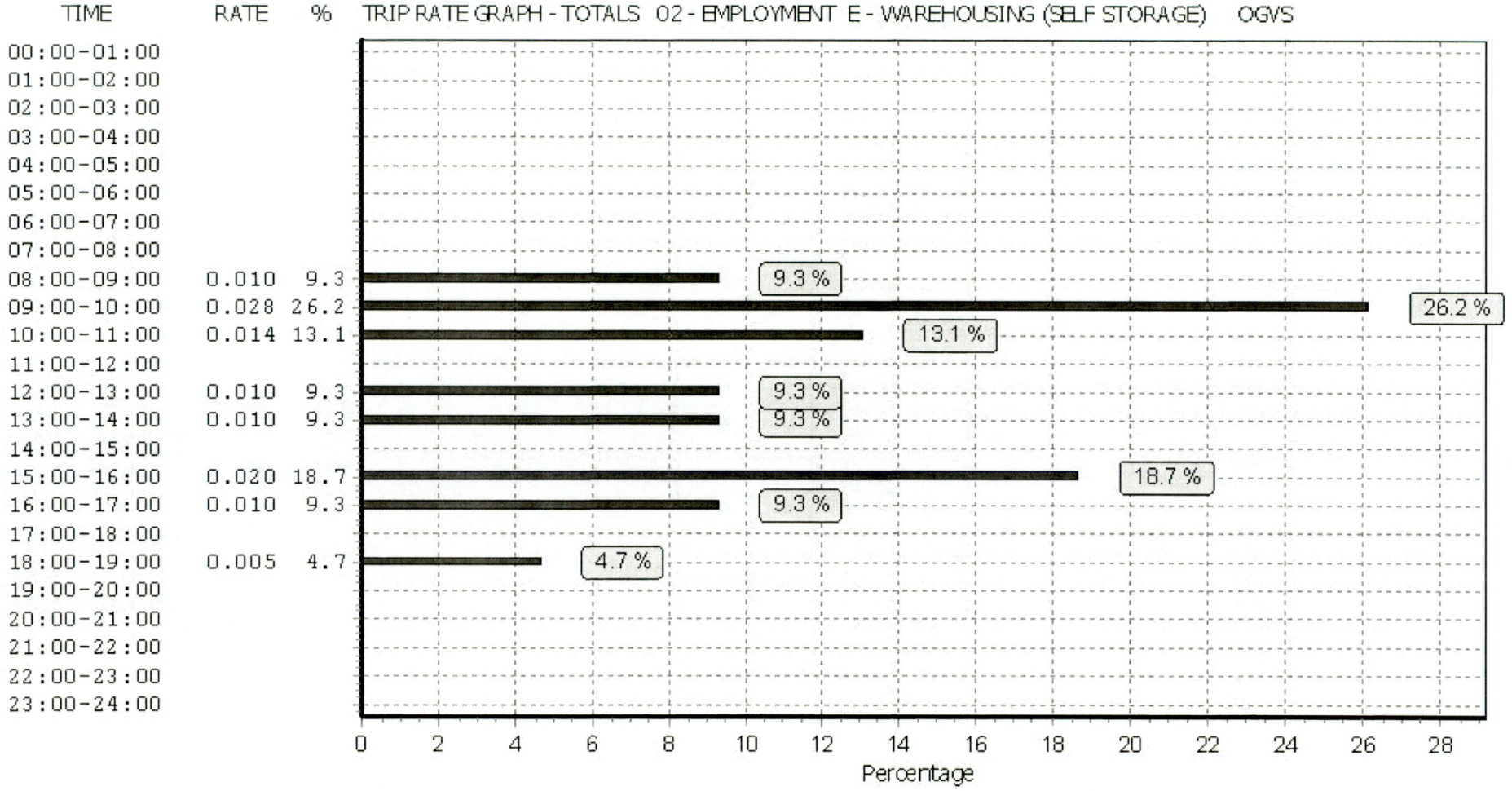


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

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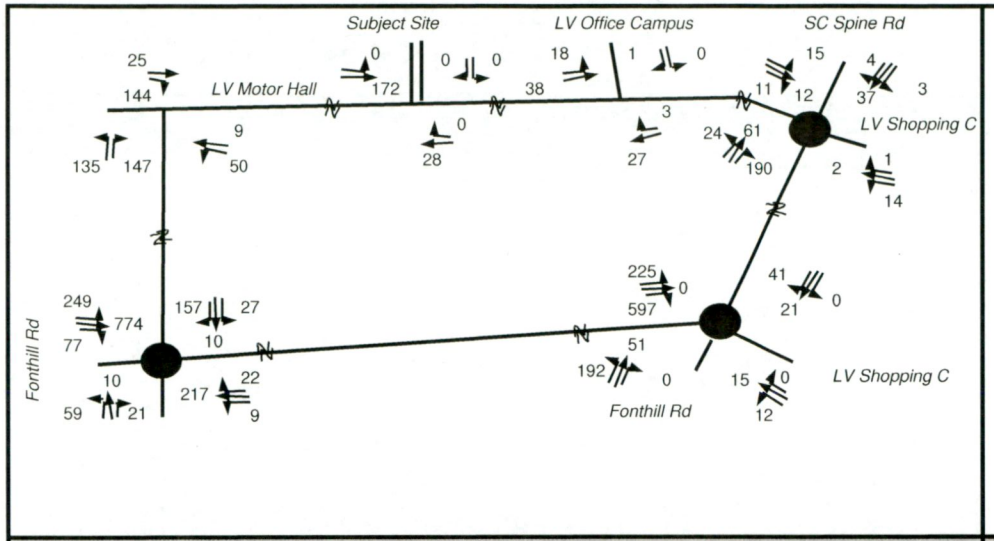
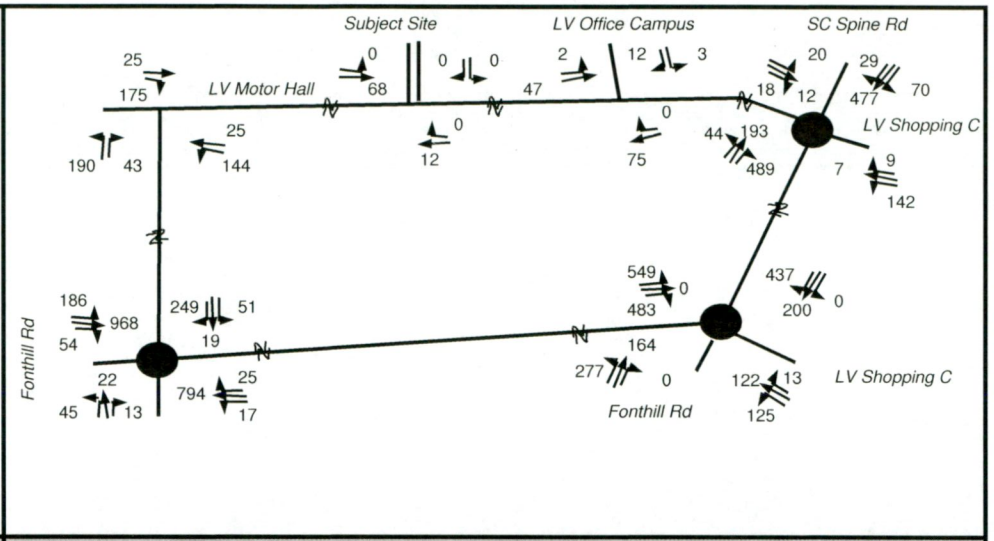
APPENDIX D

Traffic Calculations, Trip Distribution, Network Traffic Flow Diagrams & Projections Based on Traffic Surveys/TRICS



AM PEAK HR 8-9am



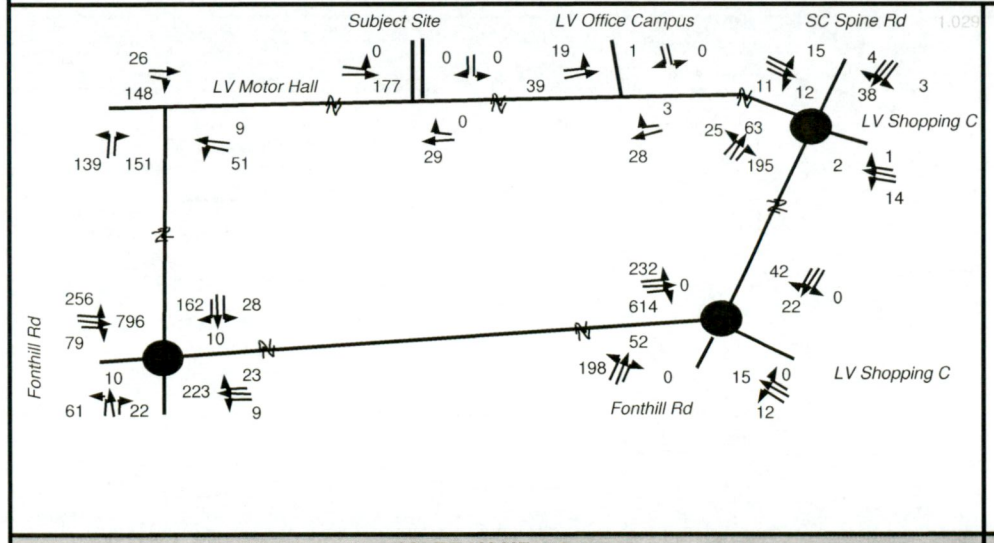
PM PEAK HR 5-6pm

Existing As Surveyed 2021 Traffic (PCUs) - WITHOUT NEW DEVELOPMENT (Refer Appendix B).

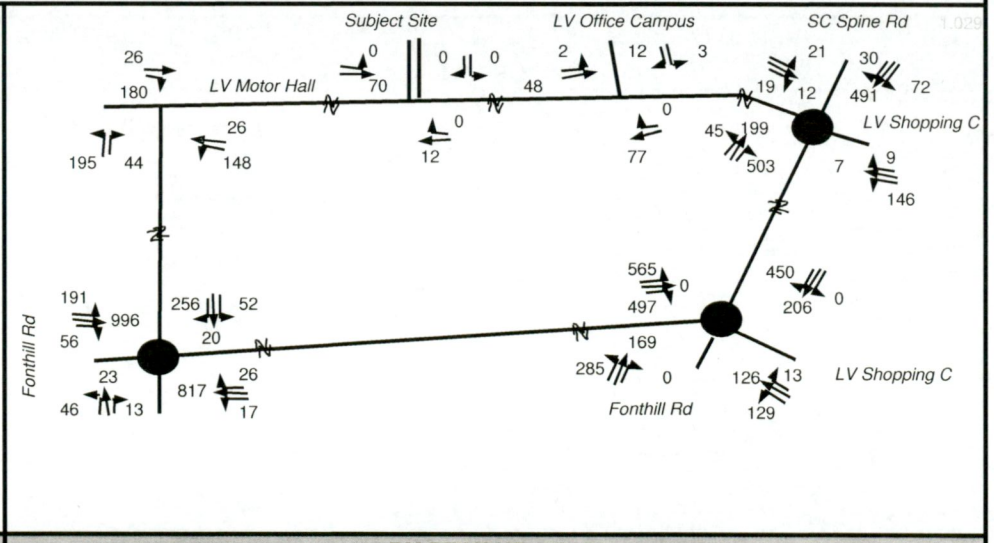
N4 TII Counter Junc #1/#2 - 9/9/2021, AM 8088, PM 8129, gives equiv AADT = 81085

N4 TII Counter Junc #1/#2 - 12/9/2019, AM 8217, PM 8469, gives equiv AADT = 83430

Resulting Summertime/Covid Factor to Apply to Surveyed Flows = 1.029



AM PEAK HR 8-9am

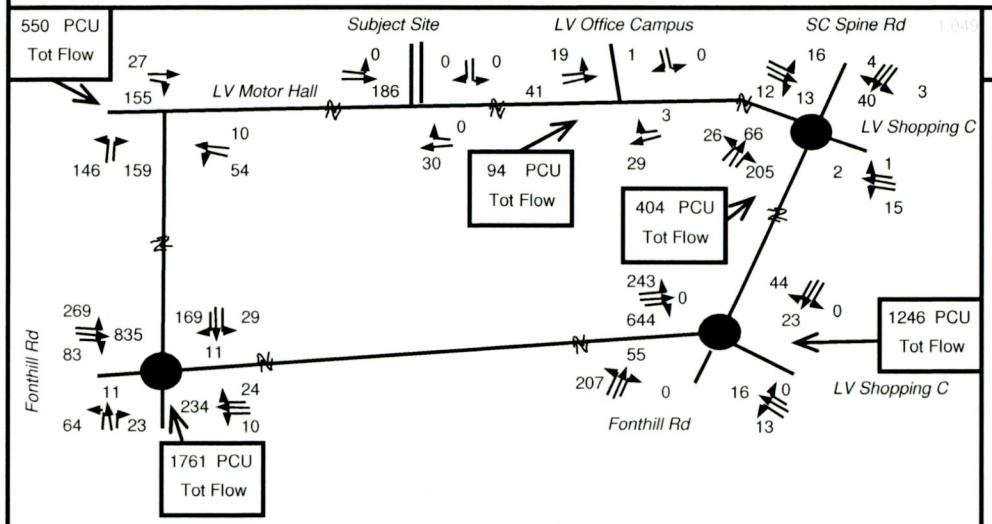


PM PEAK HR 5-6pm

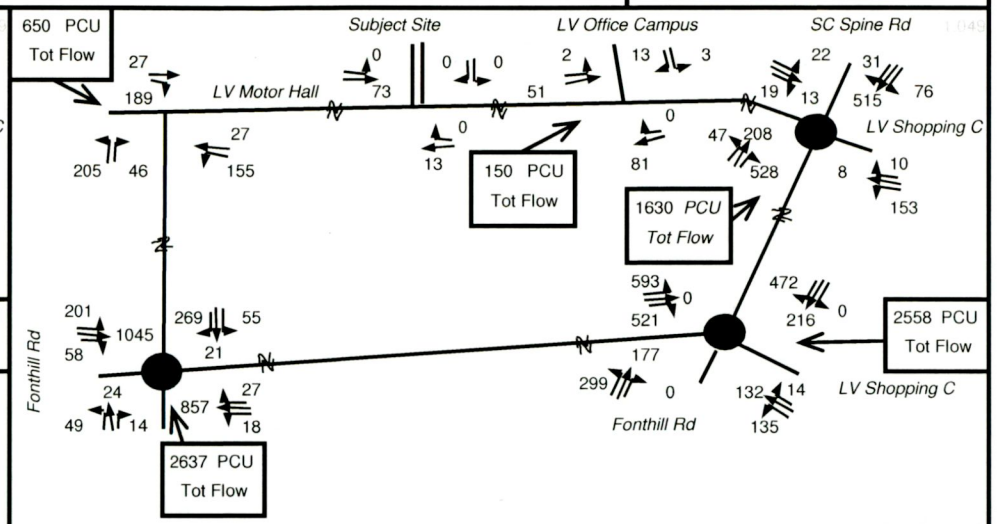
Corrected 2021 Weekday Peak Hour Traffic Volumes - Industry Standard Summer/Covid Factors Applied (PCUs) - WITHOUT NEW DEVELOPMENT

TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3
(Travel Demand Projections 2021, Table 6.1: Central Growth Rates: Annual Growth Factors Metropolitan Dublin)

2021 to 2024 = 1.049
2024 to 2039 = 1.152

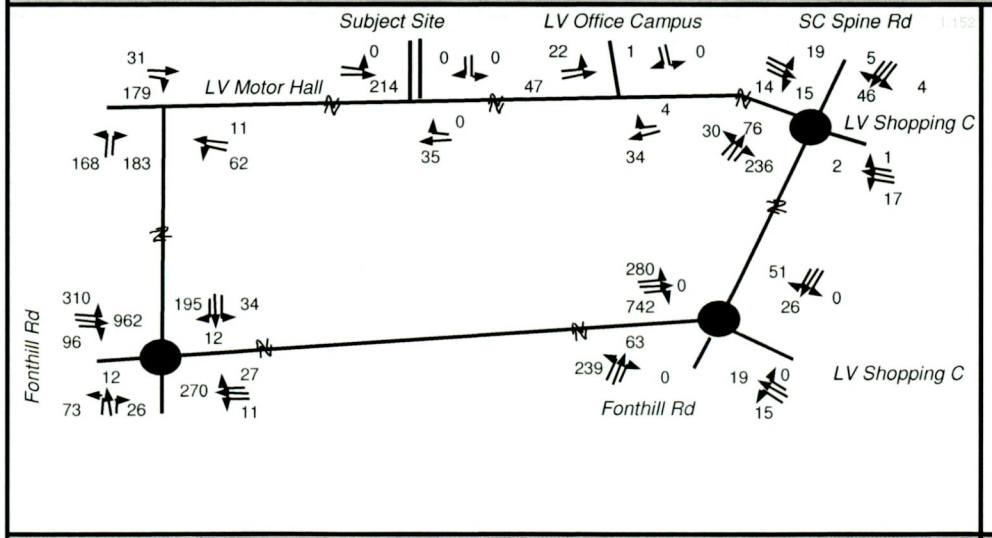


AM PEAK HR 8-9am

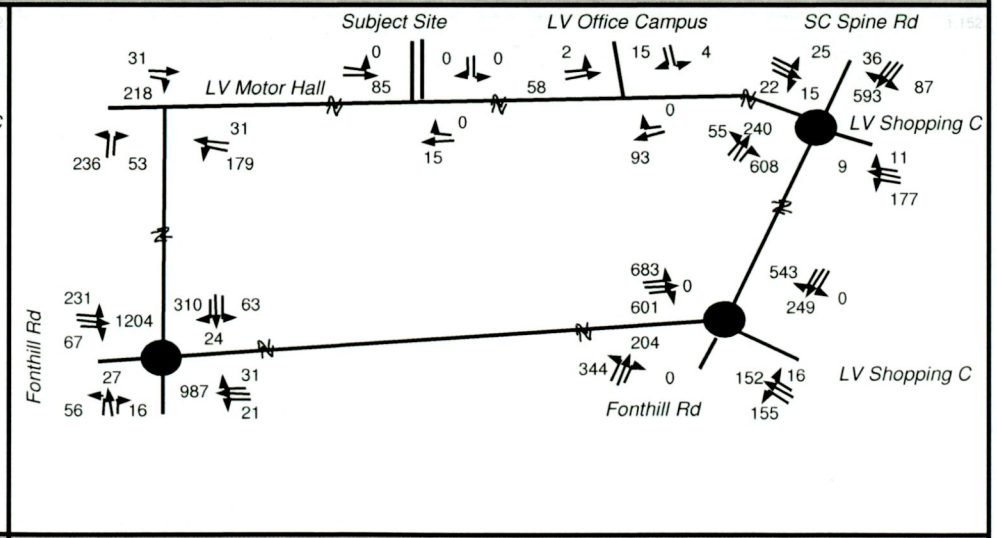


PM PEAK HR 5-6pm

Projected Selected Opening Year 2024 Weekday Peak Hour Traffic Volumes - TII Annual Growth Factors Applied (PCUs) - WITHOUT NEW DEVELOPMENT



AM PEAK HR 8-9am



PM PEAK HR 5-6pm

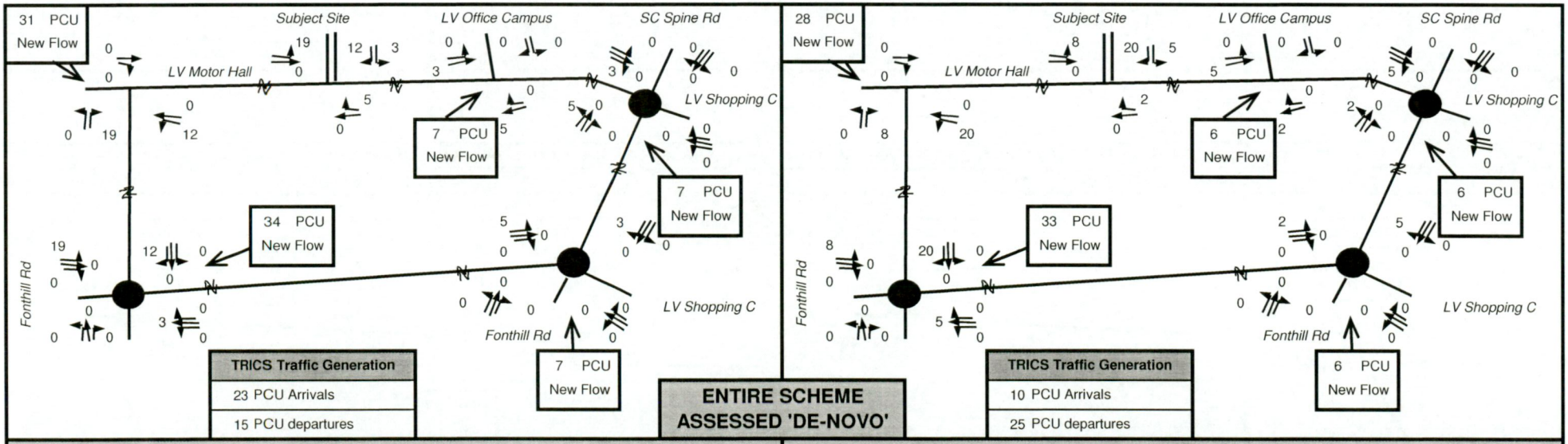
Associated Design Year 2039 Weekday Peak Hour Traffic Volumes - TII Annual Growth Factors Applied (PCUs) - WITHOUT NEW DEVELOPMENT

TRAFFIC GENERATION CALCULATIONS - BASED ON TRICS, SELF STORAGE WAREHOUSING (Refer Appendix C)

19673 m2 Facility	Arrivals (PCUs)		Departures (PCUs)		Total 2-Way Vehicular Traffic Generated
Network Hour	Per 100m2	Dev	Per 100m2	Dev	
Weekday AM Peak Hr 8-9	0.118	23	0.076	15	38
Weekday PM Peak Hr 5-6	0.052	10	0.127	25	35

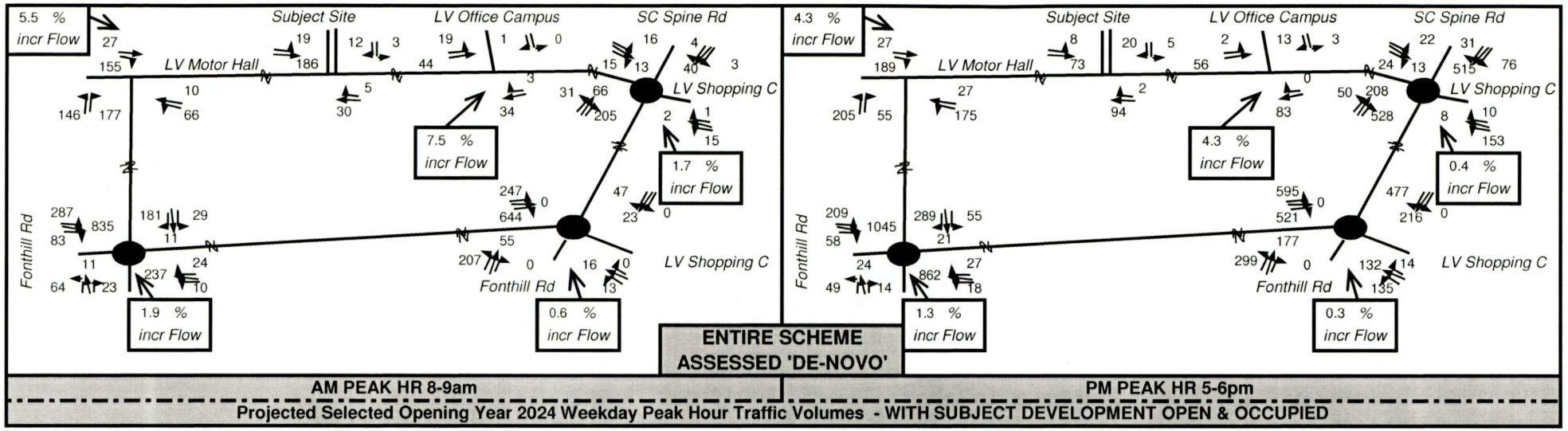
Self Storage Warehouse TRICS Appendix C

ASSESSING THE ENTIRE DEVELOPMENT AS A 'DE-NOVO' APPLICATION

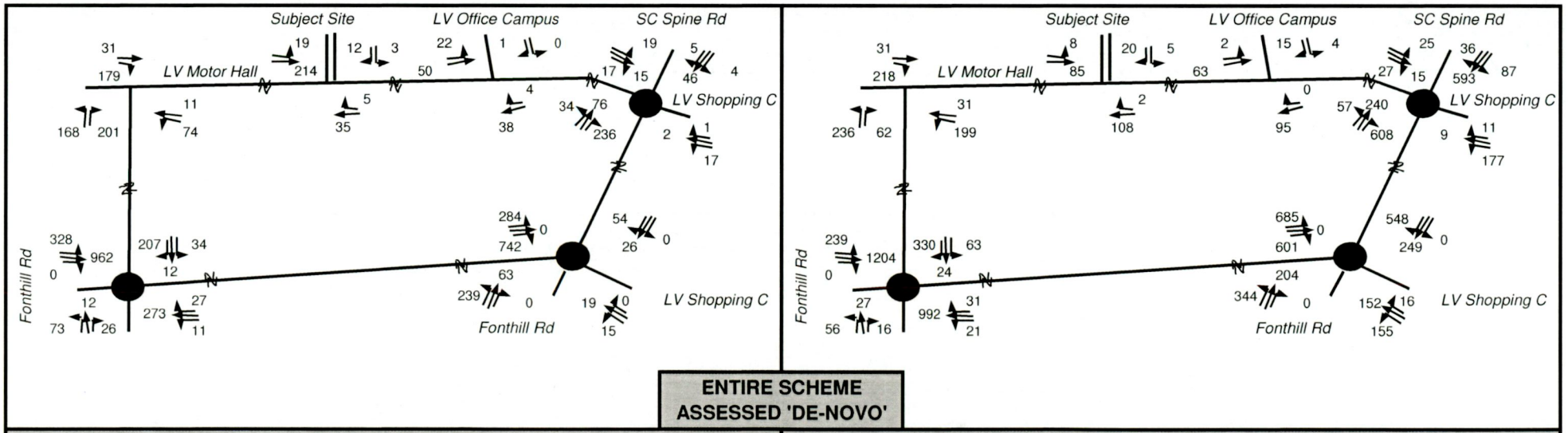


AM PEAK HR 8-9am | **PM PEAK HR 5-6pm**

ASSIGNMENT OF SUBJECT DEVELOPMENT TRAFFIC ONLY TO NETWORK *(BASED ON ESTABLISHED OBSERVED PROPORTIONS, BEING INDUSTRY STANDARD PRACTICE)*



Projected Selected Opening Year 2024 Weekday Peak Hour Traffic Volumes - WITH SUBJECT DEVELOPMENT OPEN & OCCUPIED



Associated Design Year 2039 (Ope +15) Weekday Peak Hour Traffic Volumes - WITH SUBJECT DEVELOPMENT OPEN & OCCUPIED

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APPENDIX E

Junction9 PiCADY Output
(Site Access T-Junction)

Capacity Assessment With Subject Development Open and Occupied
Priority Controlled Site Access Junction

Modelled Scenario	Period Mean Max Q (PCUs)	Period Max RFC
2024 Opening Year AM Peak Hr	<1	0.04
2024 Opening Year PM Peak Hr	<1	0.07
2039 Design Year AM Peak Hr	<1	0.04
2039 Design Year PM Peak Hr	<1	0.07

All Results Above are WAY below the recommended RFC of 0.85 (85% Capacity) and therefore no problems whatsoever are anticipated at the Junction in terms of Capacity or excessive vehicle Queues. The Model output demonstrates very low RFCs, signifying high reserve capacity available.

NB - Any Small Changes to Selected Opening Year 2024 or Design Year 2039, or indeed significantly higher traffic volumes experienced, as clearly deductable from the positive results presented, will clearly have no significant implications in terms of the conclusions of the Study. The Excess Capacity in the Junction is such that the modelled RFCs are practically immeasurable.

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: 2024 AM PM.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2021\21-086 U-Store It LV\Calculations\Access Picady
Report generation date: 08/10/2022 12:50:10

»2024, AM
»2024, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2024							
Stream B-AC	0.0	9.29	0.04	A	0.1	9.13	0.07	A
Stream C-AB	0.0	6.78	0.01	A	0.0	6.05	0.00	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	13/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024	AM	ONE HOUR	07:45	09:15	15
D2	2024	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Public Rd West		Major
B	Site Access		Minor
C	Public Rd 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	6.00			0.0	✓	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	One lane	2.20	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	440	0.080	0.202	0.127	0.289
1	B-C	574	0.088	0.222	-	-
1	C-B	574	0.222	0.222	-	-

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	205	100.000
B		✓	15	100.000
C		✓	35	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	186
	B	12	0	3
	C	30	5	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-AC	0.04	9.29	0.0	A
C-AB	0.01	6.78	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	428	0.026	11	0.0	8.818	A
C-AB	4	555	0.007	4	0.0	6.657	A
C-A	22			22			
A-B	14			14			
A-C	140			140			

2024, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	T Junction from Fonthill to LV Motor Hall	T-Junction	Two-way	6.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	203	100.000
B		✓	260	100.000
C		✓	216	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	176	27
	B	55	0	205
	C	27	189	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-C	0.32	7.53	0.5	A
B-A	0.17	12.52	0.2	B
C-AB	0.36	9.70	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	154	735	0.210	153	0.3	6.302	A
B-A	41	380	0.109	41	0.1	10.810	B
C-AB	143	601	0.239	142	0.3	7.981	A
C-A	19			19			
A-B	133			133			
A-C	20			20			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	184	726	0.254	184	0.3	6.776	A
B-A	49	369	0.134	49	0.2	11.475	B
C-AB	172	596	0.288	172	0.4	8.639	A
C-A	22			22			
A-B	158			158			
A-C	24			24			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	226	713	0.316	225	0.5	7.515	A
B-A	61	354	0.171	60	0.2	12.493	B
C-AB	212	590	0.359	211	0.6	9.672	A
C-A	26			26			
A-B	194			194			
A-C	30			30			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	226	713	0.317	226	0.5	7.533	A
B-A	61	354	0.171	61	0.2	12.515	B
C-AB	212	590	0.359	212	0.6	9.705	A
C-A	26			26			
A-B	194			194			
A-C	30			30			

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2039	AM	ONE HOUR	07:45	09:15	15
D2	2039	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2039, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	T Junction from Fonthill to LV Motor Hall	T-Junction	Two-way	9.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Motor Hall Rd East		Major
B	Rd To/From Fonthill		Minor
C	Motor Hall Rd West		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	7.00			100.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	6.00	6.00	6.00	6.00	6.00		4.00	60	60

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	541	0.094	0.238	0.150	0.341
1	B-C	643	0.094	0.238	-	-
1	C-B	632	0.234	0.234	-	-

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	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2039	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	85	100.000
B		✓	370	100.000
C		✓	210	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	74	11
	B	202	0	168
	C	31	179	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-C	0.34	10.05	0.5	B
B-A	0.49	15.59	0.9	C
C-AB	0.32	8.73	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	126	586	0.216	125	0.3	7.952	A
B-A	152	485	0.314	150	0.5	10.922	B
C-AB	136	622	0.218	135	0.3	7.518	A
C-A	22			22			
A-B	56			56			
A-C	8			8			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	151	572	0.264	151	0.4	8.707	A
B-A	182	473	0.384	181	0.6	12.525	B
C-AB	163	621	0.262	163	0.4	7.997	A
C-A	26			26			
A-B	67			67			
A-C	10			10			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	185	551	0.336	184	0.5	10.002	B
B-A	222	458	0.486	221	0.9	15.433	C
C-AB	201	621	0.323	200	0.5	8.713	A
C-A	30			30			
A-B	81			81			
A-C	12			12			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	185	550	0.336	185	0.5	10.053	B
B-A	222	458	0.486	222	0.9	15.588	C
C-AB	201	621	0.323	201	0.5	8.732	A
C-A	30			30			
A-B	81			81			
A-C	12			12			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	151	571	0.265	152	0.4	8.767	A
B-A	182	473	0.384	183	0.6	12.687	B
C-AB	163	621	0.262	163	0.4	8.026	A
C-A	26			26			
A-B	67			67			
A-C	10			10			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	126	585	0.216	127	0.3	8.028	A
B-A	152	485	0.314	153	0.5	11.092	B
C-AB	136	622	0.218	136	0.3	7.564	A
C-A	22			22			
A-B	56			56			
A-C	8			8			

2039, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	T Junction from Fonthill to LV Motor Hall	T-Junction	Two-way	6.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2039	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	231	100.000
B		✓	298	100.000
C		✓	249	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	200	31
	B	62	0	236
	C	31	218	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-C	0.37	8.25	0.6	A
B-A	0.20	13.49	0.3	B
C-AB	0.42	10.78	0.7	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	178	730	0.243	176	0.3	6.617	A
B-A	47	371	0.126	46	0.1	11.289	B
C-AB	166	598	0.278	164	0.4	8.447	A
C-A	21			21			
A-B	151			151			
A-C	23			23			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	212	720	0.295	212	0.4	7.221	A
B-A	56	358	0.156	56	0.2	12.127	B
C-AB	199	593	0.336	199	0.5	9.306	A
C-A	25			25			
A-B	180			180			
A-C	28			28			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	260	705	0.369	259	0.6	8.225	A
B-A	68	341	0.200	68	0.3	13.454	B
C-AB	246	587	0.419	245	0.7	10.723	B
C-A	28			28			
A-B	220			220			
A-C	34			34			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	260	705	0.369	260	0.6	8.254	A
B-A	68	340	0.201	68	0.3	13.490	B
C-AB	246	587	0.419	246	0.7	10.776	B
C-A	28			28			
A-B	220			220			
A-C	34			34			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	212	719	0.295	213	0.4	7.263	A
B-A	56	358	0.156	56	0.2	12.173	B
C-AB	199	593	0.336	200	0.5	9.372	A
C-A	25			25			
A-B	180			180			
A-C	28			28			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	178	729	0.244	178	0.3	6.667	A
B-A	47	371	0.126	47	0.1	11.348	B
C-AB	166	598	0.278	166	0.4	8.526	A
C-A	21			21			
A-B	151			151			
A-C	23			23			

NRB consulting engineers

APPENDIX G

Junction9 PiCADY Output
(*Adjacent Office Campus Access T-Junction*)

Capacity Assessment With Subject Development Open and Occupied
Adjacent Office Campus Access T-Junction

Modelled Scenario	Period Mean Max Q (PCUs)	Period Max RFC
2024 Opening Year AM Peak Hr	<1	0.01
2024 Opening Year PM Peak Hr	<1	0.04
2039 Design Year AM Peak Hr	<1	0.01
2039 Design Year PM Peak Hr	<1	0.05

All Results Above are WAY below the recommended RFC of 0.85 (85% Capacity) and therefore no problems whatsoever are anticipated at the Junction in terms of Capacity or excessive vehicle Queues. The Model output demonstrates very low RFCs, signifying high reserve capacity available.

NB - Any Small Changes to Selected Opening Year 2024 or Design Year 2039, or indeed significantly higher traffic volumes experienced, as clearly deductable from the positive results presented, will clearly have no significant implications in terms of the conclusions of the Study. The Excess Capacity in the Junction is such that the modelled RFCs are practically immeasurable

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: 2024 AM PM.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2021\21-086 U-Store It LV\Calculations\Office campus T Junct
Report generation date: 08/10/2022 13:36:33

»2024, AM
»2024, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2024							
Stream B-AC	0.0	0.00	0.00	A	0.0	8.77	0.04	A
Stream C-AB	0.0	6.34	0.01	A	0.0	0.00	0.00	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	13/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024	AM	ONE HOUR	07:45	09:15	15
D2	2024	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Adjacent Office Campus T junc	T-Junction	Two-way	0.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Public Rd West		Major
B	Office Campus Access		Minor
C	Public Rd 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	6.00			0.0	✓	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	One lane	2.20	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	440	0.080	0.202	0.127	0.289
1	B-C	574	0.088	0.222	-	-
1	C-B	574	0.222	0.222	-	-

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	63	100.000
B		✓	1	100.000
C		✓	37	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	44
	B	1	0	0
	C	34	3	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.01	6.34	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	487	0.000	0	0.0	0.000	A
C-AB	2	581	0.004	2	0.0	6.345	A
C-A	25			25			
A-B	14			14			
A-C	33			33			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	485	0.000	0	0.0	0.000	A
C-AB	3	582	0.005	3	0.0	6.335	A
C-A	30			30			
A-B	17			17			
A-C	40			40			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	482	0.000	0	0.0	0.000	A
C-AB	4	584	0.006	4	0.0	6.321	A
C-A	37			37			
A-B	21			21			
A-C	48			48			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	482	0.000	0	0.0	0.000	A
C-AB	4	584	0.006	4	0.0	6.321	A
C-A	37			37			
A-B	21			21			
A-C	48			48			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	485	0.000	0	0.0	0.000	A
C-AB	3	582	0.005	3	0.0	6.335	A
C-A	30			30			
A-B	17			17			
A-C	40			40			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	487	0.000	0	0.0	0.000	A
C-AB	2	581	0.004	2	0.0	6.345	A
C-A	25			25			
A-B	14			14			
A-C	33			33			

2024, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Adjacent Office Campus T junc	T-Junction	Two-way	0.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	58	100.000
B		✓	16	100.000
C		✓	83	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	56
	B	13	0	3
	C	83	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-AC	0.04	8.77	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	12	444	0.027	12	0.0	8.500	A
C-AB	0	564	0.000	0	0.0	0.000	A
C-A	62			62			
A-B	2			2			
A-C	42			42			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	441	0.033	14	0.0	8.612	A
C-AB	0	562	0.000	0	0.0	0.000	A
C-A	75			75			
A-B	2			2			
A-C	50			50			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	436	0.040	18	0.0	8.766	A
C-AB	0	560	0.000	0	0.0	0.000	A
C-A	91			91			
A-B	2			2			
A-C	62			62			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	436	0.040	18	0.0	8.766	A
C-AB	0	560	0.000	0	0.0	0.000	A
C-A	91			91			
A-B	2			2			
A-C	62			62			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	441	0.033	14	0.0	8.613	A
C-AB	0	562	0.000	0	0.0	0.000	A
C-A	75			75			
A-B	2			2			
A-C	50			50			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	12	444	0.027	12	0.0	8.504	A
C-AB	0	564	0.000	0	0.0	0.000	A
C-A	62			62			
A-B	2			2			
A-C	42			42			

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 2039 AM PM.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2021\21-086 U-Store It LV\Calculations\Office campus T Junct
Report generation date: 08/10/2022 13:39:20

»2039, AM
»2039, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2039							
Stream B-AC	0.0	0.00	0.00	A	0.1	8.85	0.05	A
Stream C-AB	0.0	6.35	0.01	A	0.0	0.00	0.00	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	13/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2039	AM	ONE HOUR	07:45	09:15	15
D2	2039	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2039, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Adjacent Office Campus T junc	T-Junction	Two-way	0.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Public Rd West		Major
B	Office Campus Access		Minor
C	Public Rd 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	6.00			0.0	✓	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	One lane	2.20	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	440	0.080	0.202	0.127	0.289
1	B-C	574	0.088	0.222	-	-
1	C-B	574	0.222	0.222	-	-

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	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2039	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	72	100.000
B		✓	1	100.000
C		✓	42	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	22	50
	B	1	0	0
	C	38	4	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.01	6.35	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	486	0.000	0	0.0	0.000	A
C-AB	3	582	0.005	3	0.0	6.347	A
C-A	28			28			
A-B	17			17			
A-C	38			38			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	483	0.000	0	0.0	0.000	A
C-AB	4	583	0.007	4	0.0	6.338	A
C-A	34			34			
A-B	20			20			
A-C	45			45			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	480	0.000	0	0.0	0.000	A
C-AB	5	585	0.008	5	0.0	6.324	A
C-A	41			41			
A-B	24			24			
A-C	55			55			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	480	0.000	0	0.0	0.000	A
C-AB	5	585	0.008	5	0.0	6.327	A
C-A	41			41			
A-B	24			24			
A-C	55			55			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	483	0.000	0	0.0	0.000	A
C-AB	4	583	0.007	4	0.0	6.340	A
C-A	34			34			
A-B	20			20			
A-C	45			45			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	486	0.000	0	0.0	0.000	A
C-AB	3	582	0.005	3	0.0	6.347	A
C-A	28			28			
A-B	17			17			
A-C	38			38			

2039, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Adjacent Office Campus T junc	T-Junction	Two-way	0.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2039	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A		✓	66	100.000
B		✓	19	100.000
C		✓	95	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	64
	B	15	0	4
	C	95	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	2
	B	2	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS
B-AC	0.05	8.85	0.1	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	444	0.032	14	0.0	8.534	A
C-AB	0	563	0.000	0	0.0	0.000	A
C-A	72			72			
A-B	2			2			
A-C	48			48			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	17	441	0.039	17	0.0	8.666	A
C-AB	0	561	0.000	0	0.0	0.000	A
C-A	85			85			
A-B	2			2			
A-C	58			58			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	21	436	0.048	21	0.1	8.847	A
C-AB	0	558	0.000	0	0.0	0.000	A
C-A	105			105			
A-B	2			2			
A-C	70			70			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	21	436	0.048	21	0.1	8.848	A
C-AB	0	558	0.000	0	0.0	0.000	A
C-A	105			105			
A-B	2			2			
A-C	70			70			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	17	441	0.039	17	0.0	8.670	A
C-AB	0	561	0.000	0	0.0	0.000	A
C-A	85			85			
A-B	2			2			
A-C	58			58			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	444	0.032	14	0.0	8.542	A
C-AB	0	563	0.000	0	0.0	0.000	A
C-A	72			72			
A-B	2			2			
A-C	48			48			