Proposed Mixed Use Development, Santry Avenue, Dublin 9

Traffic and Transport Assessment (TTA)

200060-X-Z-X-XXX-RP-DBFL-CE-0004

TRANSPORTATION

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APPENDICES

1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1 DBFL Consulting Engineers (DBFL) have been commissioned to prepare the necessary traffic and transport related assessments in support of a planning application for a mixed Use development on Santry Avenue, Dublin 9.

1.1.2 Dwyer Nolan Developments Ltd. intend to apply to An Bord Pleanála for permission for a strategic housing development, on a site of c. 1.5 hectares, located at the junction of Santry Avenue and Swords Road, Santry, Dublin 9. The development site is bounded to the north by Santry Avenue, to the east by Swords Road, to the west by Santry Avenue Industrial Estate, and to the south by the permitted Santry Place development (granted under Dublin City Council Ref's. 2713/17 & 2737/19).

1.1.3 The proposed development provides for 350 no. apartments, comprised of 113 no. 1 bed, 218 no. 2 bed, & 19 no. 3 bed dwellings, in 4 no. seven to fourteen storey buildings, over basement level, with 4 no. retail / commercial units, a medical suite / GP Practice unit and a community use unit located at ground floor level facing onto Santry Avenue and Swords Road. A one storey residential amenity unit, facing onto Santry Avenue, is also provided for between Blocks A & D.

1.1.4 The development consists of the following:

1) Demolition of the existing building on site i.e. the existing Chadwicks Builders Merchants (c. 4,196.8m2).

2) Construction of 350 no. 1, 2, & 3 bed apartments, retail / commercial and community uses in 4 no. buildings that are subdivided into Blocks A-G as follows:

- Block A is a 7 to 14 storey block consisting of 59 no. apartments comprised of 26 no. 1 bed & 33 no. 2 bed dwellings, with 2 no. commercial/retail units located on the ground floor (c. 132.4m2 & 173m2 respectively). Adjoining same is Block B, which is a 7 storey block consisting of 38 no. apartments comprised of 6 no. 1 bed, 20 no. 2 bed, & 12 no. 3 bed dwellings, with 1 no. commercial/retail unit (c. 162.3m2) and 1 no. medical suite / GP practice unit

(c. 130.4m2) located on the ground floor. Refuse storage areas are also provided for at ground floor level.

- Block C is a 7 storey block consisting of 55 no. apartments comprised of 13 no. 1 bed & 42 no. 2 bed dwellings. Refuse storage areas are provided for at ground floor level. Adjoining same is Block D which is a 7 to 10 storey block consisting of 51 no. apartments comprised of 25 no. 1 bed, 19 no. 2 bed, & 7 no. 3 bed dwellings, with 1 no. commercial unit / café located on the ground floor (c. 163.3m2). A refuse storage area is also provided for at ground floor level.
- Block E is a 7 to 10 storey block consisting of 58 no. apartments comprised of 10 no. 1 bed & 48 no. 2 bed dwellings, with 1 no. community use unit located on the ground floor (c. 188.1m2). A refuse storage area, substation, & switchroom are also provided for at ground floor level. Adjoining same is Block F which is a 7 storey block consisting of 55 no. apartments comprised of 13 no. 1 bed & 42 no. 2 bed dwellings. A refuse storage area & bicycle storage area are also provided for at ground floor level.
- Block G is a 7 storey block consisting of 34 no. apartments comprised of 20 no. 1 bed & 14 no. 2 bed dwellings. A refuse storage area & bicycle storage area are also provided for at ground floor level.

3) Construction of a 1 storey residential amenity unit (c. 187.9m2) located between Blocks A & D.

4) Construction of basement level car parking (c.5,470.8m2) accommodating 173 no. car parking spaces & 719 no. bicycle parking spaces. Internal access to the basement level is provided from the cores of Blocks A, B, C, D, E, & F. External vehicular access to the basement level is from the south, between Blocks B & C. 36 no. car parking spaces & 58 no. bicycle parking spaces are also provided for within the site at surface level.

5) Public open space of c. 1,915m2 is provided for between Blocks C, D, E, & F. Communal open space of c. 3,122m2 provided for between (i) Blocks E, F, & G, (ii) Blocks A, B, C, & D, and (iii) in the form of roof gardens located on Blocks A, C, & F and the proposed residential amenity use unit. The development includes for hard and soft landscaping & boundary treatments.

Private open spaces are provided as terraces at ground floor level of each block and balconies at all upper levels.

6) Vehicular access to the development will be via 2 no. existing / permitted access points: (i) on Santry Avenue in the north-west of the site (ii) off Swords Road in the south-east of the site, as permitted under the adjoining Santry Place development (Ref. 2713/17).

7) The development includes for all associated site development works above and below ground, bin & bicycle storage, plant (M&E), sub-stations, public lighting, servicing, signage, surface water attenuation facilities etc.

1.1.5 The application contains a statement setting out how the proposal is consistent with the objectives of the Dublin City Development Plan 2016-2022, and also contains a statement indicating why permission should be granted for the proposed development, having regard to a consideration specified in section 37(2)(b) of the Planning and Development Act, 2000, as amended, notwithstanding that the proposed development materially contravenes a relevant development plan or local area plan other than in relation to the zoning of the land.

1.1.6 The purpose of this Traffic and Transport Assessment (TTA) is to quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of transport impact generated as a result of the proposed residential development.

1.2 SCOPE

1.2.1 The purpose of this Transport Statement is to quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of any transport impact generated as a result of the proposed mixed-use development. The scope of the assessment covers transport and related sustainability issues including means of vehicular access, pedestrian, cyclist and local public transport connections.

1.3 METHODOLOGY

1.3.1 Our approach to the study accords with policy and guidance both at a national and local level. Accordingly, the adopted methodology responds to best practices, current and emerging guidance, exemplified by a series of publications, all of which advocate this method of analysis. Key publications consulted include: -

- *'Traffic and Transport Assessment Guidelines'* (May 2014) Transport Infrastructure Ireland (TII);
- *'Traffic Management Guidelines'* Dublin Transportation Office & Department of the Environment and Local Government (May 2003);
- *'Guidelines for Traffic Impact Assessments'* The Institution of Highways and Transportation; and
- *'Dublin City Council Development Plan 2016-2022'*.

1.3.2 Our methodology incorporated a number of key inter-related stages, including: -

- **Site Audit:** A site audit was undertaken to quantify existing road network issues and identify local infrastructure characteristics, in addition to establishing the level of accessibility to the site in terms of walking, cycling and public transport. An inventory of the local road network was also developed during this stage of the assessment.
- **Background Review:** A background review of previous planning permissions on the subject site was undertaken.
- **Development Framework:** A review of Development Frameworks and supporting Transport focused studies was undertaken.
- **Trip Generation:** A trip generation exercise has been carried out to establish the potential level of vehicle trips generated by the proposed residential development.
- **Trip Distribution:** Based upon both the existing and future network characteristics, a distribution exercise has been undertaken to assign site generated vehicle trips across the local road network.

- **Network Impact:** The predicted impact of additional vehicle movements as generated by the proposed development across the local road network for the adopted design years has been quantified.
- **Network Analysis**: Detailed computer simulations have been undertaken to assess the operational performance of key junctions in the post development 2023, 2028 and 2038 development scenarios.

1.4 STAGE 1 SHD PLANNING OPINIONS

1.4.1 During the initial stage of the subject SHD planning application a number of observations and recommendations have been raised by both the local planning authority (Transportation Planning Department of Dublin City Council) and the ABP Stage 1 case officers. The items raised have been incorporated into this updated assessment and / or influenced an amendment to the scheme design. A summary of each of the observations raised (in regard to Traffic and Transport) and DBFL responses are outlined in Chapter 9 of this report.

1.5 REPORT STRUCTURE

1.5.1 Following introduction, **Section 2** of this report describes the existing conditions at the proposed development location and surrounding area, whilst **Section 3** provides the relevant transportation policies that influence the design and appraisal of the subject development proposals.

1.5.2 A summary of the proposed development itself is highlighted within **Section 4**.

1.5.3 **Section 5** outlines the parking provision proposed as part of the development proposals and the parking management strategy.

1.5.4 **Section 6** outlines the trip generation and distribution exercises carried out and the adopted methodology for applying growth factors to establish a baseline for the design year scenarios.

1.5.5 The potential traffic impact of the proposals assessed for the 2023 Opening Year, 2028 Interim Design and the 2038 Horizon Year are summarised within **Section 7.**

1.5.6 The bespoke initiatives proposed to promote sustainable travel to and from the proposed residential development are outlined in **Section 8**.

1.5.7 An outline of DBFL responses to a range of DCC Transportation observations and ABP Opinion at Stage 2 are outlined in **Section 9**.

1.5.8 The main conclusions and recommendations derived from the analysis are summarised in **Section 10**.

2.0 RECEIVING ENVIRONMENT

2.1 LAND USE

2.1.1 The subject site is currently being used as a builders merchants (Chadwicks) comprising 4196.8 m2 of existing buildings and stores. The site is located within Dublin City Council (DCC) development plan boundary and designated as both land use zoning Objective Z3 – "To provide for and improve neighbourhood facilities." And zoning objective Z6 – "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". The site has an approximate area of 1.49 hectares. The existing structures (4196.8 m2) on the site will be demolished as part of the planning proposals.

2.2 LOCATION

2.2.1 The subject site fronts onto the R104 Santry Avenue and is located along the western side of the R132 Swords Road in Santry approximately 6.5km north of Dublin City Centre.

2.2.2 The general location of the subject site in relation to the surrounding road network is illustrated in **Figure 2.1** below whilst **Figure 2.2** shows the extent of the subject development plot. The site is bounded by the R132 Swords Road on its eastern boundary, the Santry Avenue along its northern boundary and predominantly industrial/ commercial developments along its western boundary. The previously approved mixed use development (Ref. 2713/17) is located to the south

Figure 2.1: General Location of Site (Source: Google Map)

Figure 2.2: Subject Site Indicative Boundary (Source: Google Map)

2.3 EXISTING TRANSPORTATION INFRASTRUCTURE

Road Network

2.3.1 The subject site is adjacent to the R132 Swords Road corridor and will post construction benefit from having site accesses onto both (i) the R132 Swords Road (Left In-Left Out) and (ii) the R104 Santry Avenue. Travelling northbound from the subject site, the R132 Swords Road continues towards Swords and Balbriggan to the north and also allows access to the M50/M1 motorway via Junction No. 2.

2.3.2 Travelling southbound from the subject site along the R132 Swords Road access is provided to Whitehall, Drumcondra and southwards to Dublin City Centre via the N1 corridor.

2.3.3 Travelling east along the R104 corridor, the R104 Santry Avenue joins the R132 Swords Road whereas travelling westwards it connects the site with Ballymun and Finglas as well as M50 via Junction 4 at Ballymun.

2.3.4 **Figure 2.3** illustrates the key road network in the vicinity of the subject site.

Figure 2.3: Key Road Network

Pedestrian Environment

2.3.5 The R132 Swords Road is subject to a speed limit of 50kph with street lighting available on both sides of the road. In the vicinity of the subject site pedestrians can benefit from the provision of footways on both sides of the carriageway, in addition to the pedestrian crossing facilities provided as part of the traffic signal controls at the R132 Swords Rd / R104 Santry Avenue Junction.

2.3.6 The R104 Santry Avenue is subject to a speed limit of 50kph with street lights on one side of the road. Footpaths are provided on both sides of the road with signal-controlled pedestrian crossing (60m to the west of the existing Chadwicks Access) in close proximity of the subject site exiting entrance, in addition to the pedestrian crossing provided at Swords Road/Santry Avenue Junction. **Figures 2.4** to **2.7** illustrate pedestrians' facilities in vicinity of the site.

Figure 2.4: Pedestrian Facilities on Swords Road

Figure 2.5: Pedestrian Crossing at Swords Road/Santry Avenue Junction

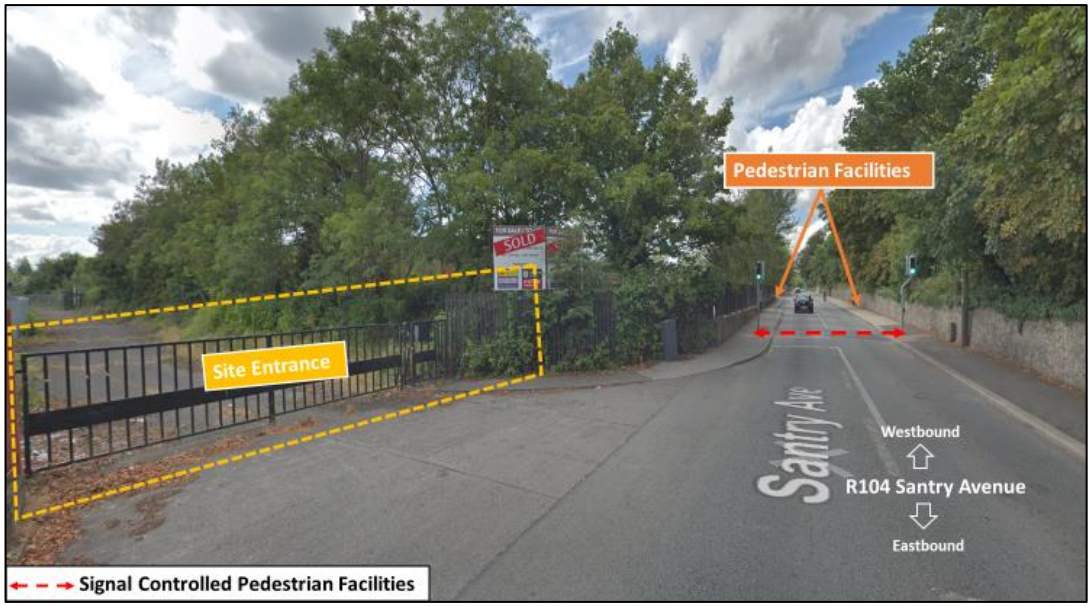


Figure 2.6: Pedestrian Facilities at Santry Avenue

Figure 2.7: Exiting Pedestrian Facilities within context of the Subject site

Cycle Environment

2.3.7 Cycle lanes are provided on both sides of R132 Swords Road corridor north of the Swords Road/ Santry Avenue signalised junction whereas no dedicated cycle facilities are currently provided towards the south of the junction along the R132 corridor. However, southbound cyclists along the R132 Swords Road corridor can benefit from the use of a bus lane though, whilst northbound cyclists along this corridor must share the road carriageway with vehicular traffic.

2.3.8 Currently cycle facilities are not provided along R104 Santry Avenue. There are a variety of other cycle facilities available on the routes leading to the subject site area as illustrated in **Figure 2.8** (extract from GDA Cycle Network Plan)

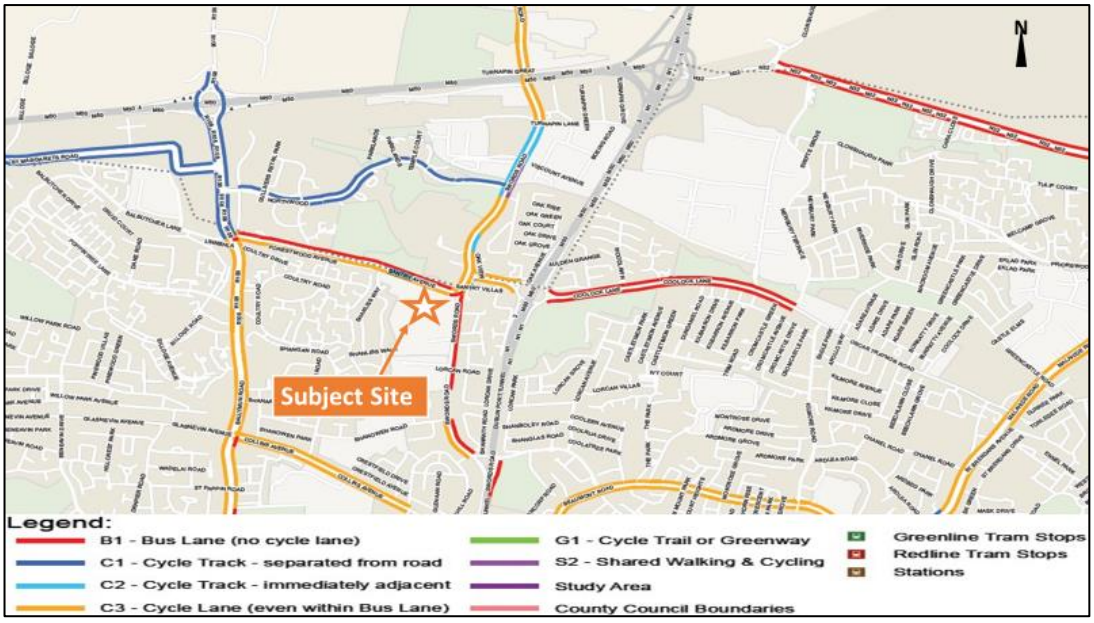


Figure 2.8: Existing Cycle Facilities (Source: Sheet E3 GDA Cycle Network Plan)

Public Transport - Bus

2.3.9 The subject site benefits from excellent public transport accessibility levels. Dublin Bus operates route numbers 16, 33, 41, 41a, 41b and 41c along the R132 Swords Road corridor, travelling in both directions providing links to Dublin City Centre and Ballinteer to the south and Swords to the north. Further, Dublin Bus Route 27b operates along the R132 Road corridor (to the north east of the subject site) providing links to/from Dublin City Centre and Harristown. The Go-Ahead Ireland bus Route 17a operates along R104 Santry Avenue providing links to/from Blanchardstown and Kilbarrack.

2.3.10 All of the above routes are highly accessible with the closest interchange opportunities being within approximately 5m (Routes 17a, 16, 33, 41a, 41b, 41c) of the subject site whilst route numbers 27b are accessible being within 500m of the subject development site as detailed further in **Figure 2.9** below.

2.3.11 These Dublin Bus and Go-Ahead Ireland operated bus services operate on a daily basis and offer frequent schedules as summarised in **Table 2.1** below. Detailed route maps for each of the bus services and the various destinations that they serve along their routes are shown in Figures A1 to A7 as contained within **Appendix A**.

Route No.	Company	Route	Mon – Fri	Sat	Sun
16	Dublin Bus	Dublin Airport – Ballinteer	87	81	63
		Ballinteer – Dublin Airport	88	83	65
17a	Go-Ahead Ireland	Blanchardstown Centre – Kilbarrack	57	52	42
		Kilbarrack – Blanchardstown Centre	57	52	42
27b	Dublin Bus	Eden Quay – Harristown	53	51	31
		Harristown – Eden Quay	53	51	32
33	Dublin Bus	Lower Abbey St – Balbriggan	21	14	12
		Balbriggan – Lower Abbey St	21	14	12
41	Dublin Bus	Lower Abbey St – Swords Manor	50	44	29
		Swords Manor – Lower Abbey St	57	43	27
41a/b	Dublin Bus	Lower Abbey St – Rolestown	5	4	3
		Rolestown – Lower Abbey St	4	4	2
41c	Dublin Bus	Lower Abbey St – Swords Manor	45	41	28
		Swords Manor – Lower Abbey St	51	39	27

Table 2.1: Bus Routes Serving the Site – Number of Services per day

2.3.12 **Figure 2.9** below provides details of the above-named bus routes with the closest interchange opportunities available to the subject site highlighted.

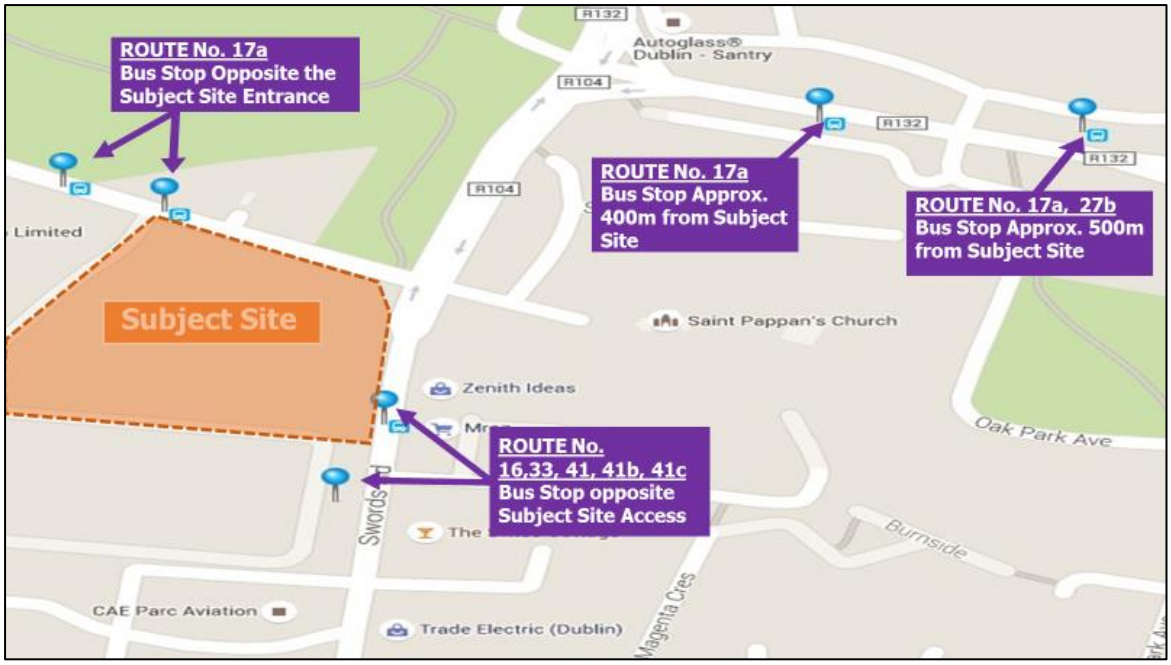


Figure 2.9: Existing Dublin Bus Routes and Local Interchanges (Source: www.dublinbus.ie)

2.3.13 **Figure 2.10** illustrates bus services opportunities in the area and the frequency available for each route on a neutral weekday as extracted from the BusConnects documentation.

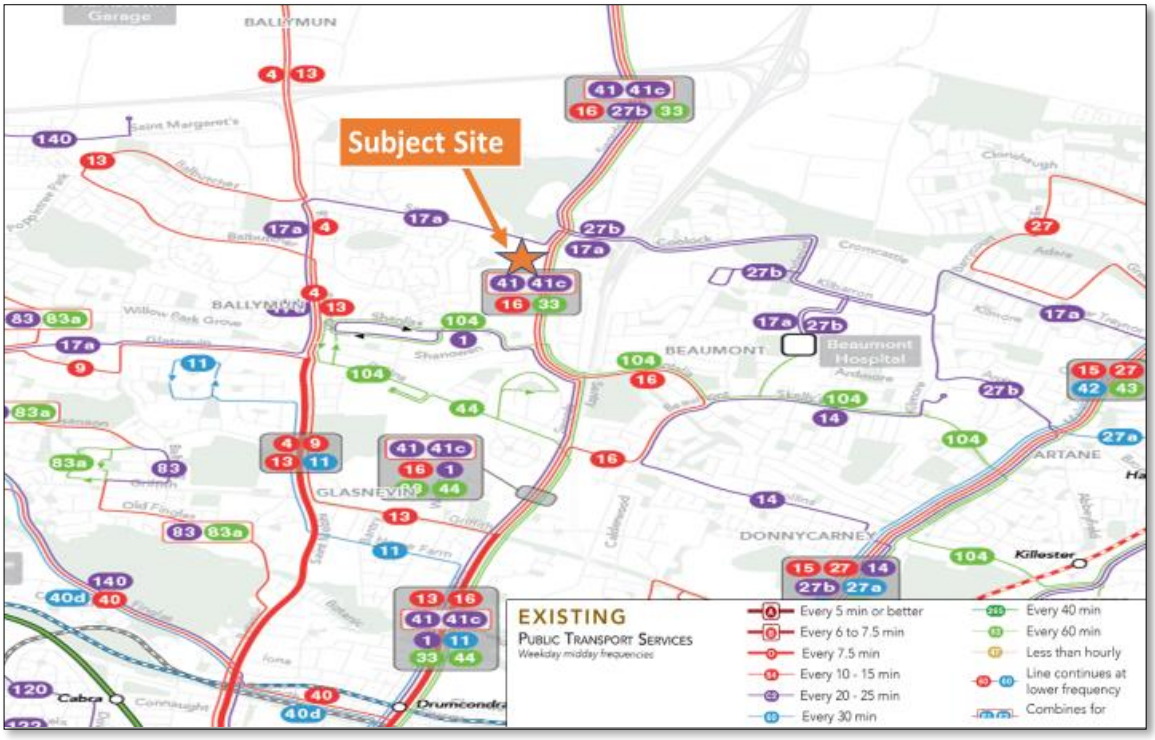


Figure 2.10: Existing Bus Route Frequencies (Source: www.busconnect.ie)

Public Transport – Heavy Rail

2.3.14 The subject development site is located approximately 4km walking (15 cycling) distance to the north of Drumcondra Railway Station. The station is located approximately 1.5km north of Dublin city centre and serves the following routes;

- Dublin Connolly-Sligo,
- Dublin-Maynooth, Longford and M3 Parkway
- Grand Canal Dock and Dublin Heuston – Portlaoise

2.3.15 The is operation Monday to Sunday from 07:00hrs -23:30hrs and it is highly accessible.

2.3.16 **Figure 2.11** below illustrates rail interchange opportunities.

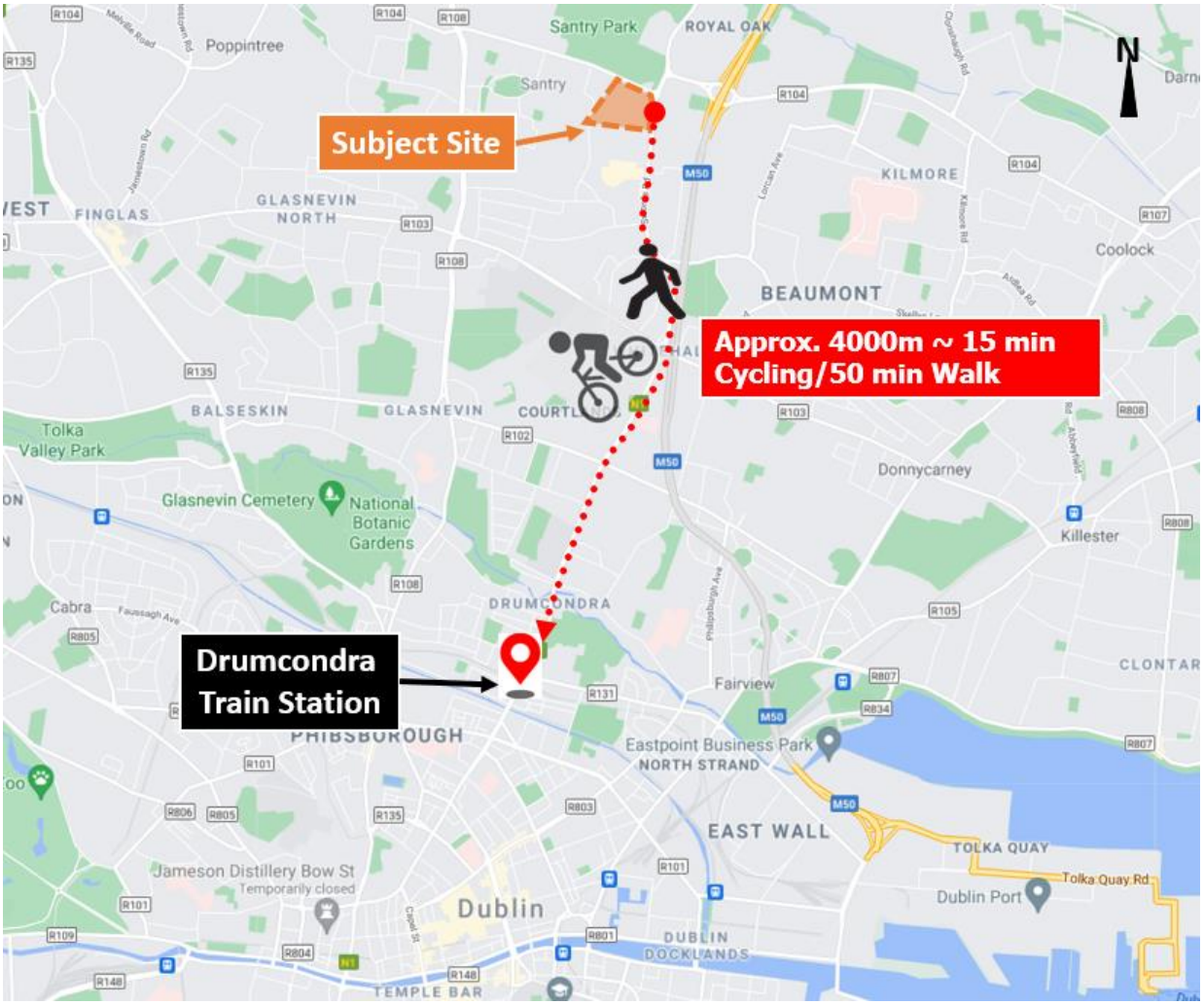


Figure 2.11: Nearest Train Station

2.4 SITE ACCESSIBILITY

2.4.1 The site's location within the urban fabric of Dublin City means that it avails of a vast and dense network of walkable streets, catered by adequate footpaths and pedestrian crossings. The previous section outlines the surrounding pedestrian environment relative to the subject site. **Figure 2.12** illustrates walking travel time catchment areas from the subject site.

2.4.2 As seen in **Figure 2.12** pedestrians from the site greatly benefit from footpaths along the R132 Swords Road and R104 Santry Road corridors, as well as routes through Santry Park. In relation to permeability, pedestrians experience severance from the M50 & N1 road corridors and poor connections and linkages between established low-density residential areas sandwiched between Santry and Ballymun. Nevertheless, within the 10-minutes walking time catchment, pedestrians from the site are able to reach Santry Shopping Centre and cross over the M50 & N1 corridor to access Kilmore. Within the 20-minute walking time catchment, pedestrians are able to access Ballymun centre, industrial estates in Northwood and just stops short of Dublin City University.

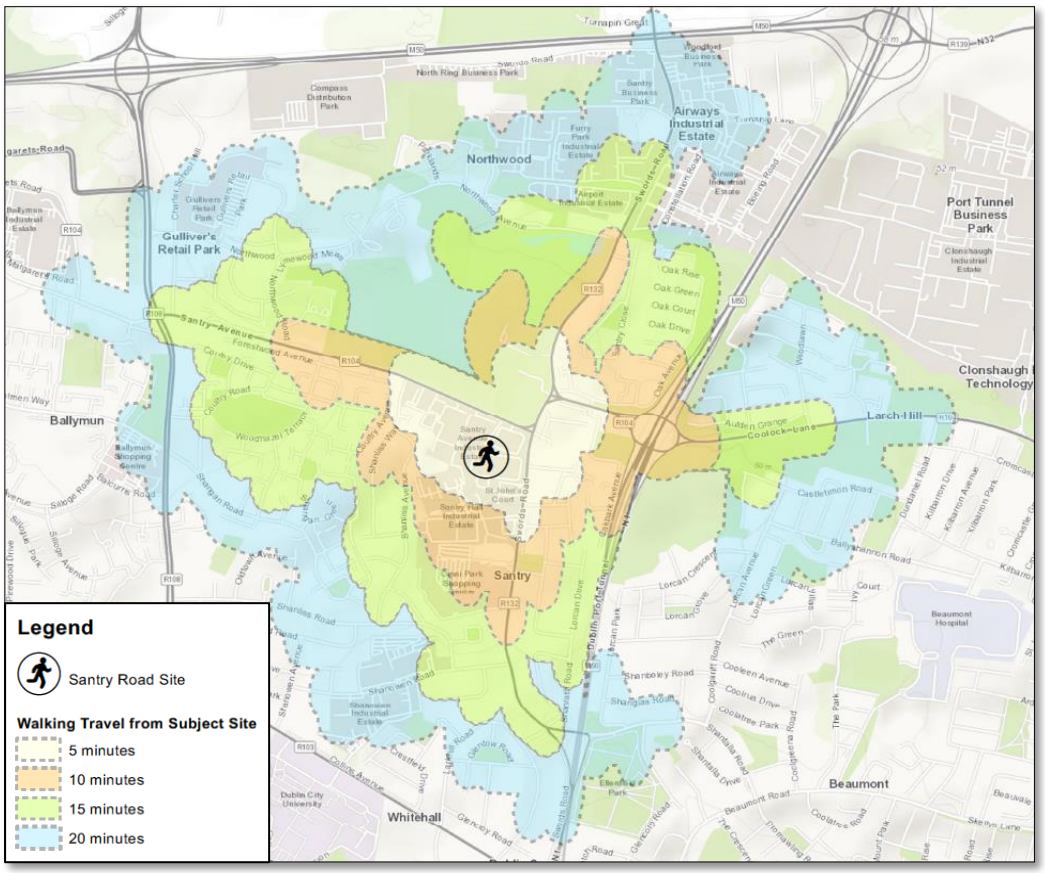


Figure 2.12: Pedestrian Accessibility (Walking Time from Site)

2.4.3 The site is very accessible by bicycle within a network of cyclable streets and dedicated cycle facilities in the vicinity of the site. The previous section outlines the surrounding bicycle environment relative to the subject site. **Figure 2.13** illustrates cycle travel time catchment areas reachable from the subject site.

2.4.4 As seen in **Figure 2.13** cyclists from the site can travel to Finglas, Dublin Airport, Swords, Donaghmede and most of Dublin City Centre within 30-minutes. Within a 45-minutes cycle time catchment, cyclists from the subject site can travel as far as Blanchardstown, Chapelizod, Terenure, Blackrock, Malahide and just short of Howth.

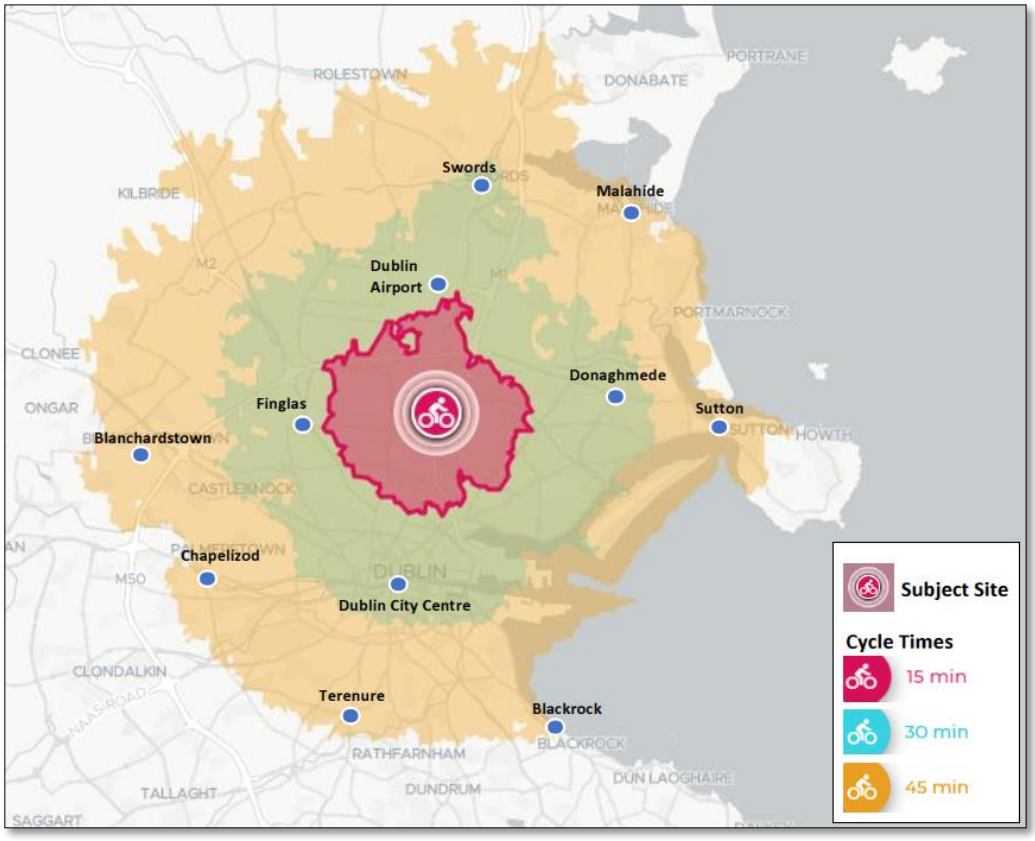
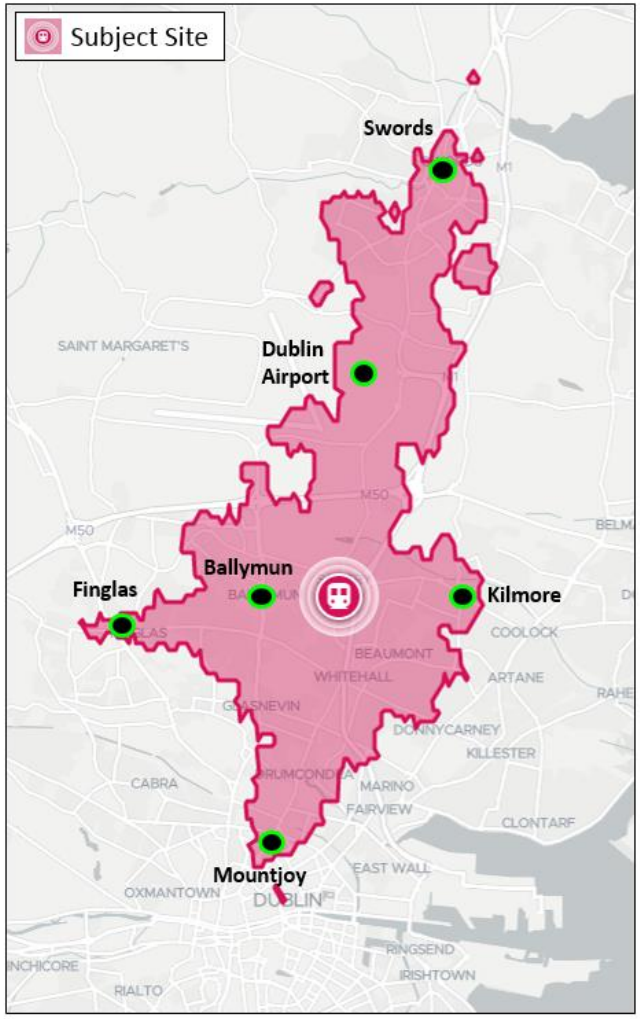
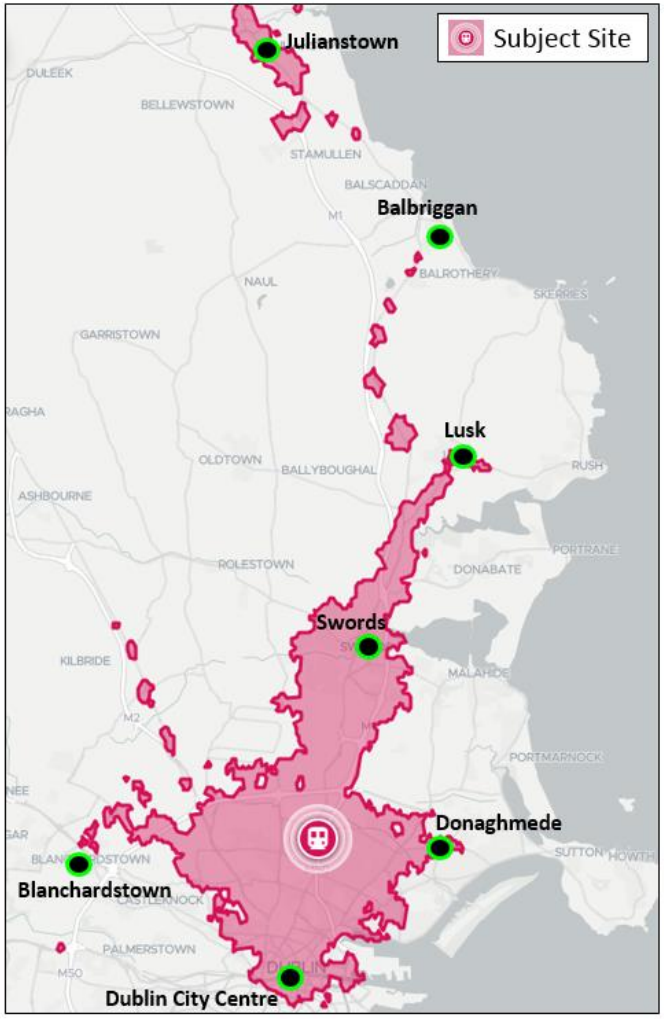


Figure 2.13: Bicycle Accessibility (Cycle Time from Site) (Source: www.app.traveltimeplatform.com)

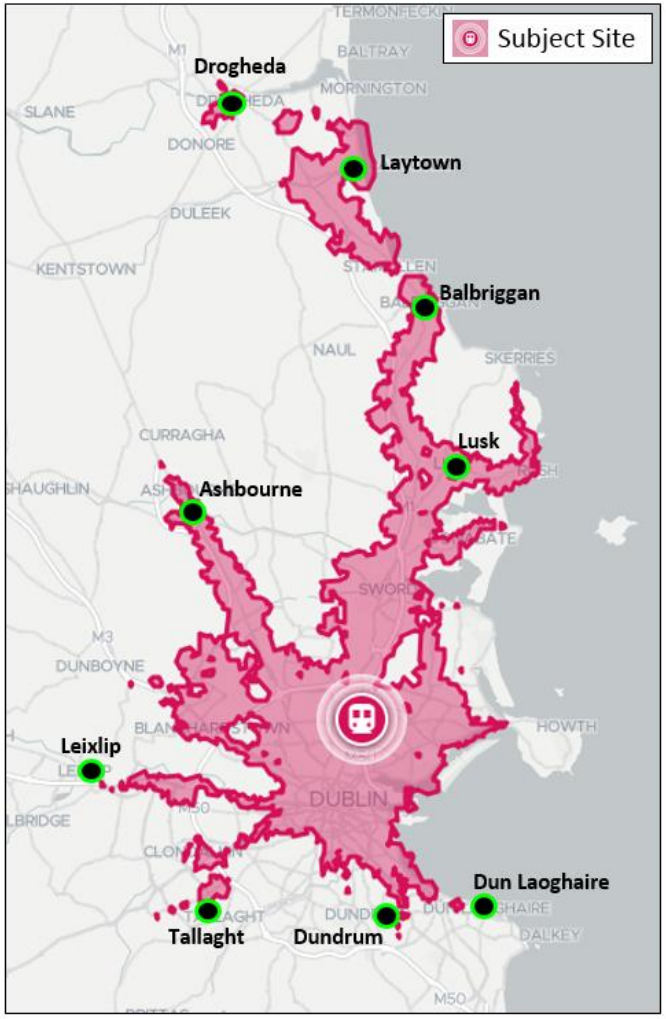
2.4.5 Regarding public transport accessibility, the subject site benefits from an excellent range of bus services in close proximity to the site as outlined in the previous section. **Figure 2.14** illustrates analysis of public transport catchment areas from the site. Areas such as Swords, Dublin Airport, Ballymun, Finglas, Kilmore and the northern edge of Dublin City Centre are within a 30-minute transit and walking time catchment from the site. Catchments for transit and walking times within 45-minutes and 60-minutes from the site are also illustrated in **Figure 2.14**.



Transit and Walking Time (Within 30mins) from Site at 8am on Typical Tuesday



Transit and Walking Time (Within 45mins) from Site at 8am on Typical Tuesday



Transit and Walking Time (Within 60mins) from Site at 8am on Typical Tuesday

Figure 2.14: Public Transport Accessibility (Public Transit and Walking Time from Site) (Source: www.app.traveltimeplatform.com)

2.5 PROPOSED TRANSPORT INFRASTRUCTURE

Cycle Network Proposals

2.5.1 In December 2013 the NTA published the report entitled *Greater Dublin Area Cycle Network Plan*. The report summarises the findings of a comprehensive body of work detailing a proposed Cycle Network incorporating Urban, Inter-urban and Green route networks covering the six county council areas that together form the defined Greater Dublin Area (GDA).

2.5.2 The subject site lies within the "Dublin North Central Sector" as outlined within the Greater Dublin Area Cycle Network Plan (2013). The sector "extends between the Malahide Road to the east, the M50 motorway to the north, Finglas to the west and the North Circular Road to the South".

2.5.3 In the vicinity of the subject site the following route addition is proposed in addition to those indicated on **Figure 2.15**:

- **Primary Radial Route 2A:** "Swords via Drumcondra, Whitehall and Santry", runs directly adjacent to the proposed development site.
- **Secondary Orbital Route NO5:** "from Donaghmede to Ballymun on Kilbarrack Road, Tonlegee Road, Oscar Traynor Road, Coolock Lane and Santry Avenue"; and
- **Santry River Greenway:** "from the back of Northside Shopping Centre to Northwood at Santry via a series of public parks and open spaces" with minor greenway links from Santry Avenue and Swords Road through Santry Demesne as located to the north of the subject site.

2.5.4 The implementation of the above cycle infrastructure schemes by the local authority will be subject to further design, public consultation, approval, and importantly availability of funding and resources.

Figure 2.15: GDA Cycle Network Plan Proposals (extract from Sheet N3 GDA Cycle Network Plan)

Public Transport Proposals – Dublin Bus Connects

2.5.5 BusConnects is an initiative launched by the National Transport Authority with the aim of overhauling the bus system in the Dublin Region. This initiative includes review of bus services, the definition of a core bus network which comprises radial, orbital and regional core bus corridors. It also includes enhancements to ticketing and fare systems as well as transition to a new low emission vehicle fleet.

2.5.6 This initiative in the short-term proposes to implement a redesign of the existing bus network. The fundamental changes to the network expected would be as follows:

- Increasing the overall amount of bus services. Providing new and frequent orbital services connecting more outer parts of the city together;
- Simplifying the bus services on the key radial into "spines" where all buses will operate under a common letter system and buses will run very frequently and be more evenly spaced;
- Increasing the number of routes where buses will come every 15 minutes or less all day;
- The frequent network would become a web-shaped grid, with many interchange opportunities to reach more destination. Everywhere that two frequent routes cross, a fast interchange is possible; and

- Additional service would be provided at peak hours to limit overcrowding.

2.5.7 The proposed development site is also ideally located to benefit from the enhanced accessibility levels that will be delivered by the BusConnects. The subject site will be directly serviced by the following BusConnects proposed routes;

- **Route A2/A4:** will run adjacent to the subject site along the Swords Road and will serve the site with frequency of every 12 minutes in peak period. A2 will connect the subject site to Airport, City Centre, Ballinteer and Dundrum whereas A4 connect the site to Swords, City Centre and Nutgrove.
- **Route 22:** will run adjacent to the subject site along the Swords Road and will serve Glen Ellan Road, River Valley and City Centre with a frequency of every 15 minutes.
- **Route N6:** will run along Santry Avenue just opposite the site entrance, with a proposed frequency of 10 minutes. The route provides a connection to Spine Route E located within approximately 1.2km west of the site and the future Metrolink stop on Ballymun Road. It also connects the site to Finglas, Santry, Coolock and Donaghmede.

2.5.8 **Figure 2.16** illustrates bus services opportunities in the area and the frequency available for each route on a neutral weekday from the BusConnect redesign.

Figure 2.16: Proposed Bus Network (Source: www.busconnect.ie)

2.5.9 The Bus Network Redesign is the first step in a series of transformative changes to Dublin's bus network over the coming years. However, the next steps in this initiative is the improved infrastructural and operation of the proposed Bus network which includes:

- Building a network of "next generation" bus corridors on the busiest bus lines to make bus journeys faster, predictable and reliable;
- Developing a state-of-the-art ticketing system using credit and debit cards or mobile phones to link with payment accounts and making payment much more convenient;
- Implementing a cashless payment system to vastly speed up passenger boarding times;
- A simpler fare structure, allowing seamless movement between different bus services without financial penalty;
- New bus stops with better signage and information and increasing the provision of additional bus shelters; and
- Transitioning to a new bus fleet using low-emission vehicle technologies.

2.5.10 **Figures 2.17** and **2.18** illustrates the bus radial and orbital infrastructural corridors to be implemented as part of the BusConnect initiative. In relation to the subject site, the proposed development lies immediately adjacent to radial Core Bus Corridor (CBC) of Swords to the City Centre (C Spine) where bus journey time is anticipated to be 40 minutes along the entire route once constructed. Further the Ballymun City Centre Core Bus Corridor (E Spine) is also located within approximately 1.2km west of the subject site.

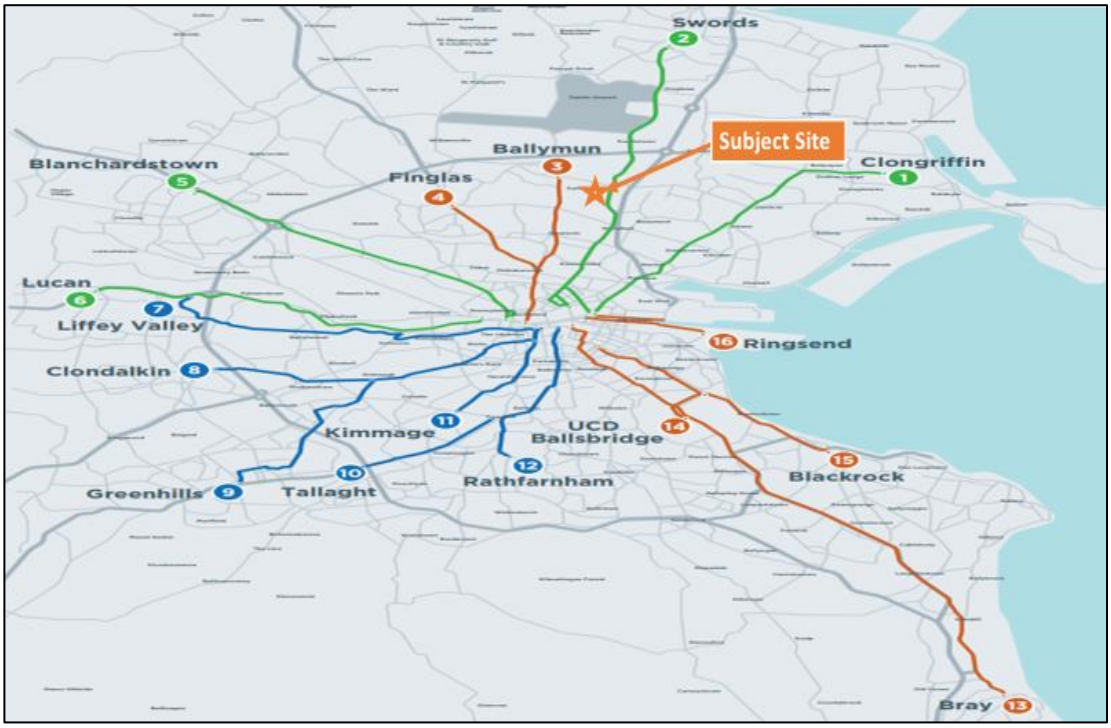


Figure 2.17: BusConnects Radial Bus Corridor

Figure 2.18: BusConnects Orbital Bus Corridor

2.5.11 As noted, the development site is located directly adjacent to the Swords to City Centre corridor, as shown in **Figure 2.17** above. In order to accommodate proposals along the Swords Road in the vicinity of the development, the NTA have established that localised road widening is necessary.

2.5.12 **Figure 2.19** below an extract of Map 19 Emerging Preferred Route of Bus Connects Swords-City Centre Corridor illustrates that the site does not cause any hindrance to the proposed corridor. It also shows improved pedestrian and Cycle facilities as well as new bus stop that will be provided adjacent to the proposed site entrance along Swords Road (as being delivered by the neighbouring permitted scheme (Ref. 2713/17).

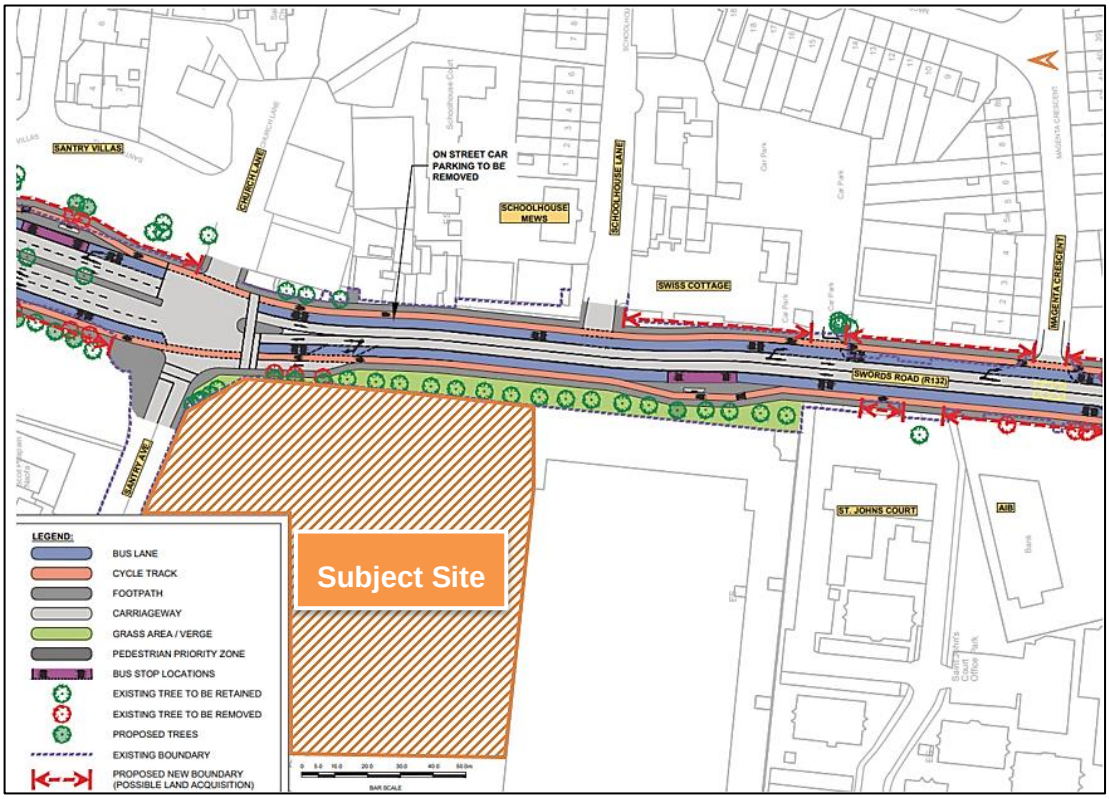


Figure 2.19: Swords-City Centre Corridor, Extracted from Map 19 Emerging Preferred Route (Source: www.busconnects.com)

2.5.13 The subject site will benefit from enhanced levels of accessibility and mobility offered by NTA Bus Connects proposals. Bus Connects will also offer improved cycle and walking facilities surrounding the site in addition to the efficient and high frequency bus service and connectivity.

Metrolink

2.5.14 The MetroLink project is an urban high capacity rail service connecting Swords, Dublin Airport, City Centre and Charlemont with a journey time of approximately 20 mins (between O'Connell St and Dublin Airport) and offering a frequency of up to 30 trains per hour per direction.

2.5.15 The proposed route for the MetroLink near the site is indicated in **Figure 2.20** with the closest interchanges Northwood and Ballymun both located within approximately 1.6km from to the entrance of the subject site.

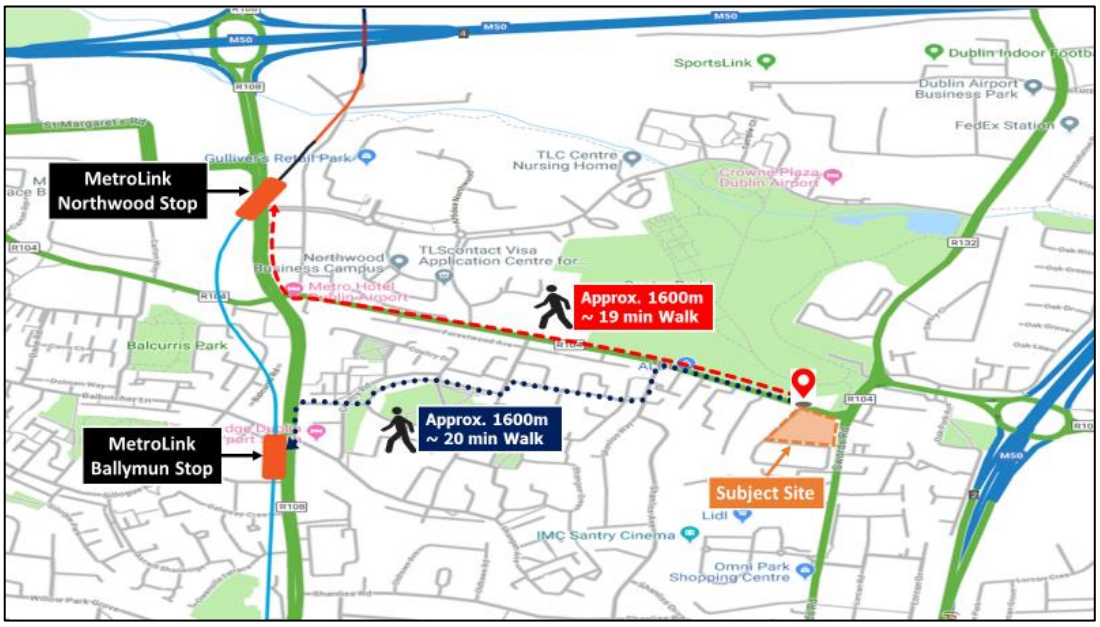


Figure 2.20: Proposed MetroLink Stops near the subject site

2.6 LOCAL AMENITIES

2.6.1 The proposed development site is very well placed in terms of the availability of local amenities. These include the large retail outlet Omni Shopping Centre which is located approximately 450m south of the subject development site. Other amenities include the Northwood Demesne located to the north west of the subject site, approximately 1.5km distance. Northwood incorporates Santry Par, Industrial Estates and Retail Parks. In addition to the Dublin City University campus being located within 1.6km from the subject site, there are a number of schools accessible within 3km including Virgin Mary Primary School, Trinity Comprehensive Secondary School, Scoil an Tseachtar Laoch Primary School, Our lady of Victories Boys National School, and Holy Child Boys National School. Furthermore, the subject site benefits from good access to leisure facilities such as public parks, GAA Clubs and Fitness Clubs. Beaumont Hospital is also within approximately 3km. **Figure 2.21** below shows indicatively the subject site's location in relation to the aforementioned local amenities.

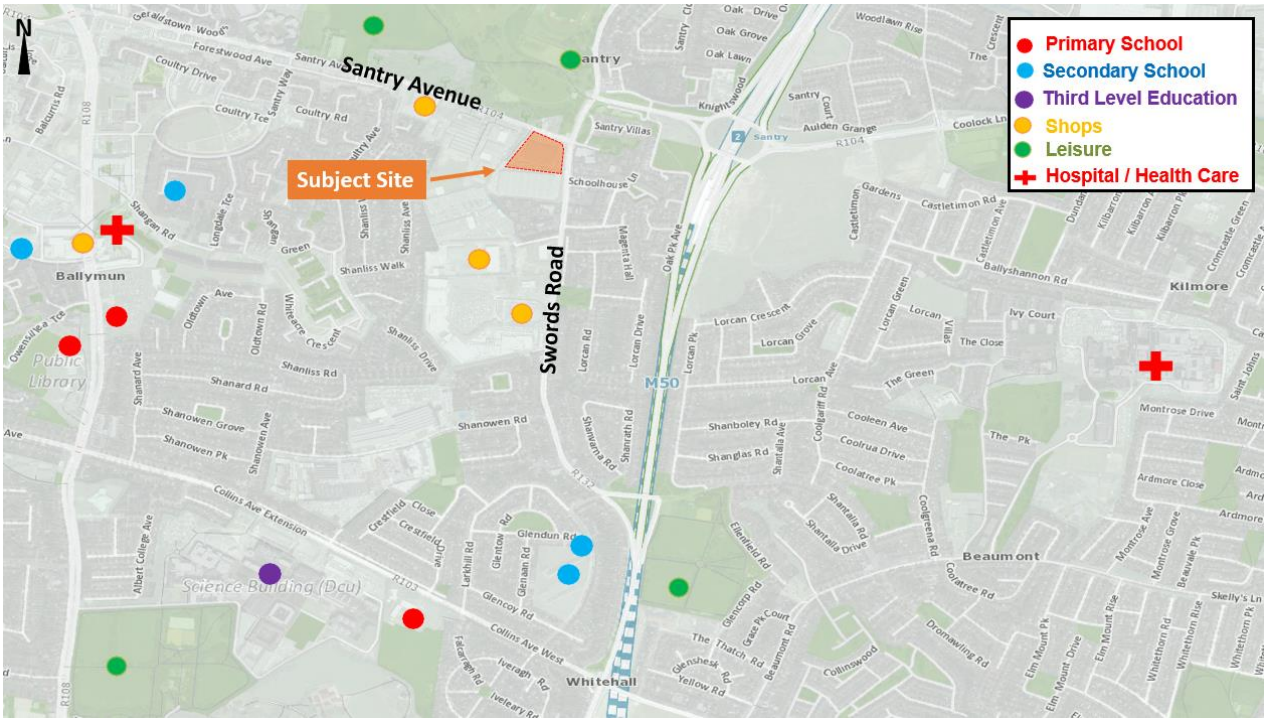


Figure 2.21: Subject Site Local Amenities

2.7 ROAD SAFETY RECORDS

2.7.1 With the objective of ascertaining the road safety record of the immediate routes leading to/from the subject site, the collision statistics as detailed on the Road Safety Authority's (RSA) website (www.rsa.ie) have been examined. The RSA website includes basic information relating to reported collisions over the most recent ten-year period, from 2006 to 2016 inclusive.

2.7.2 The RSA database records details where collision events have been officially recorded such as the when the Garda being present to formally record details of the incident.

2.7.3 In reference to Figure 2.22 and Table 2.2 overleaf, incident number 9 resulted in a serious casualty involving a car and pedestrian whilst the remaining all incidents resulted in minor casualties involving car with two involving bicycle and one involving Goods Vehicle.

Ref	Severity	Year	Vehicle	Circumstances	Day	Time	Casualty
1	Minor	2009	Car	Pedestrian	Saturday	1000-1600	1
2	Minor	2013	Goods Vehicle	Pedestrian	Wednesday	1000-1600	1
3	Minor	2009	Car	Pedestrian	Friday	1600-1900	1
4	Minor	2009	Car	Pedestrian	Tuesday	1600-1900	1
5	Minor	2012	Bicycle	Pedestrian	Thursday	1600-1900	1
6	Minor	2008	Car	Angle, right turn	Saturday	1000-1600	1
7	Serious	2006	Car	Head-on Conflict	Wednesday	1600-1900	1
8	Serious	2016	Car	Pedestrian	Tuesday	1600-1900	1
9	Minor	2006	Car	Rear end, right turn	Saturday	1600-1900	1
10	Minor	2009	Car	Pedestrian	Friday	1900-2300	1
11	Minor	2013	Car	other	Monday	2300-0300	1
12	Minor	2015	Bicycle	other	Tuesday	0700-1000	1
13	Minor	2012	undefined	Other	Thursday	1900-2300	1
14	Minor	2014	Car	Head-on conflict	Sunday	1600-1900	1
15	Minor	2015	Car	Rear end, straight	Thursday	1900-2300	1
16	Minor	2007	Car	Head on right turn	Sunday	1600-1900	1
17	Minor	2013	Car	Pedestrian	Saturday	1000-1600	1

Table 2.2: Collision Records - (source www.rsa.ie)

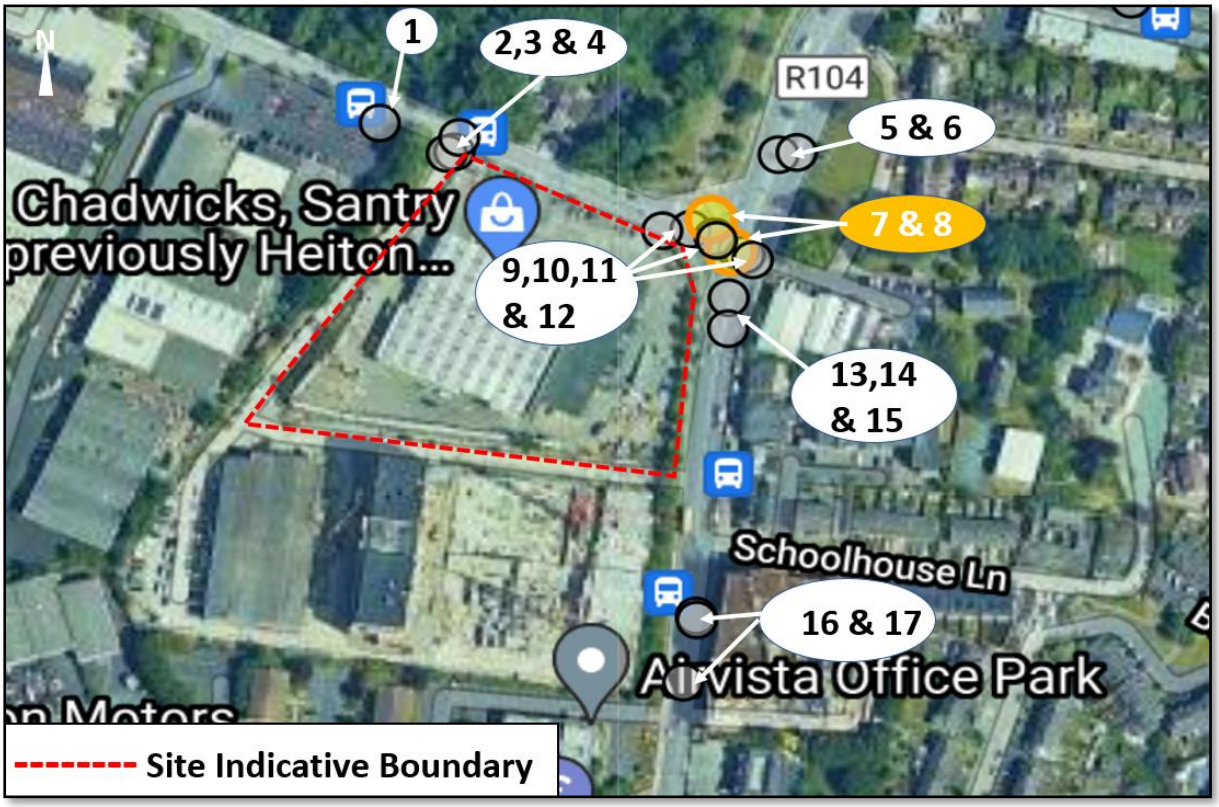


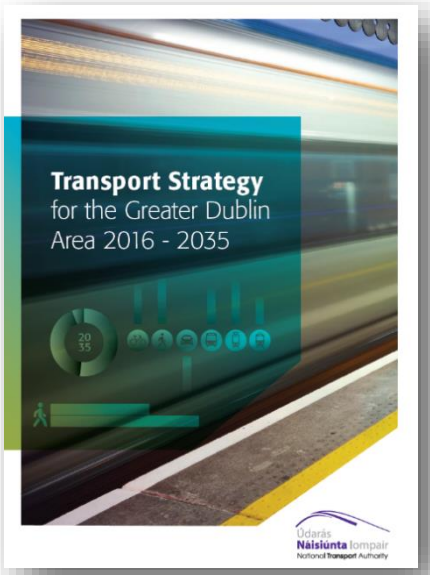
Figure 2.22: RSA Collision Map - (source www.rsa.ie)

2.7.4 The review of the RSA data available reveals that there are no apparent trends in collisions which have occurred in the vicinity of the subject site during the most recent 11-year period (2006-2016).

3.0 POLICY FRAMEWORK

3.1 DEVELOPMENT POLICY

Transport Strategy for the Greater Dublin Area 2016-2035



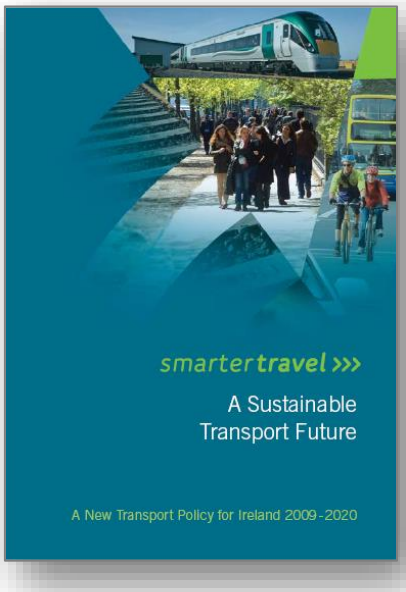
3.1.1 The Transport Strategy for the Greater Dublin Area 2016-2035 is a document compiled by the National Transport Authority which sets out the Strategic Transport Plan for the Greater Dublin Area for the period up to 2035.

3.1.2 This document will influence transport planning across the region until 2035 and replaces 'A Platform for Change – An Integrated Transportation Strategy for the Greater Dublin Area 2000 to 2016'. It thereby underpins all transportation strategies, traffic management schemes and development plans prepared by Dublin City Council during this timeframe.

3.1.3 The Strategy sets out a clear hierarchy of transport users, commencing with the sustainable modes of travel such as walking, cycling and public transport users at the very top of the hierarchy. The Strategy adopts the general principle that these users should have their safety and convenience needs considered first and that the hierarchy is applied where a large share of travel is (or could be) made by walking, cycling and public transport.

3.1.4 In addition to guiding the development of specific Strategy measures, the NTA encourages that the "transport user hierarchy should guide engineers, planners and urban designers on the order in which the needs of transport users should be considered in designing new developments or traffic schemes in the Greater Dublin Area."

Smarter Travel – A Sustainable Transport Future



3.1.5 *Smarter Travel* was published in 2009 by the Department of Transport which represents the national policy documentation outlining a broad vision for the future and establishes objectives and targets for transport. The document examines past trends in population and economic growth and transport concluding that these trends are unsustainable into the future.

3.1.6 In order to address the unsustainable nature of current travel behaviour, Smarter Travel sets down a number of key goals and targets for 2020 - including:

- Total vehicle km travelled by car will not significantly increase;
- Work-related commuting by car will be reduced from 65% to 45%;
- 10% of all trips will be by cycling;
- The efficiency of the transport system will be significantly improved.

3.1.7 The document recognises that these are ambitious targets, and outlines a suite of 49 actions required to achieve these targets – summarised under the following four main headings:

- Actions aimed at reducing distances travelled by car and the use of fiscal measures to discourage use of the car;
- Actions aimed at ensuring that alternatives to the car are more widely available;
- Actions aimed at improving fuel efficiency of motorised travel; and
- Actions aimed at strengthening institutional arrangements to deliver the targets.

Dublin City Council Development Plan 2016-2022

3.1.8 The Dublin City Development Plan sets out a new approach to meet the needs and aspirations of citizens of Dublin and the country, not only for the 6-year life of the plan, but for the long term. This approach is based on the principles of sustainability and resilience on the social, economic and environmental fronts.

3.1.9 The Development Plan's Strategic Approach in response to the challenges facing the economy of the city and its role as the national and regional economic engine are as follows:

- Developing enterprise, particularly the services sector which is the critical sector for the city;
- Developing academic medical centres providing excellence in research, care and teaching in the medical and health sectors;
- Promoting the development of the three innovation corridors identified in the Economic Development Action Plan for the Dublin City Region;
- Improving the general attractiveness of a city for people and investors as a key part of maintaining competitiveness and creating a vibrant place that attracts and retains creative people within the city; and
- Providing appropriate office and commercial spaces as the workplaces for the new knowledge and services economy and enables the city to compete as an attractive location internationally.

3.1.10 The Dublin City Council Development Plan 2016-2022 states that it is the policy of Dublin City Council:

- *"To promote and enhance the city's competitiveness and address deficits, to improve the business environment so that existing jobs are supported and employment generated and be creative and practical in its responses to present economic challenges."*
- *"To recognise the crucial need for the planning and sustainable development system to be agile and responsive in the face of challenging and rapidly changing circumstances."*
- *"Dublin City Council will promote sustainable development by balancing complex sets of economic, environmental or social goals in planning decisions."*

3.1.11 The Dublin City Council Development Plan 2016-2022 states the following objectives:

- *"To examine the need and opportunity for new development and financing models that will allow desirable developments to go ahead in the short-term while ensuring that the optimum development of the site will be achieved in stages."*
- *"To examine how key economic generators could have greater spin-off benefits for their surrounding areas and to actively promote their development."*

3.1.12 According to the Dublin City Council Development Plan 2016 - 2022, the proposed mixed-use development site is designated as both land use zoning Objective Z3 – "To provide for and improve neighbourhood facilities." And zoning objective Z6 – "To provide for the creation and protection of enterprise and facilitate opportunities for employment creation". **Figure 3.1** below illustrates location of the proposed development in context of the Development Plan Land use zoning objectives.

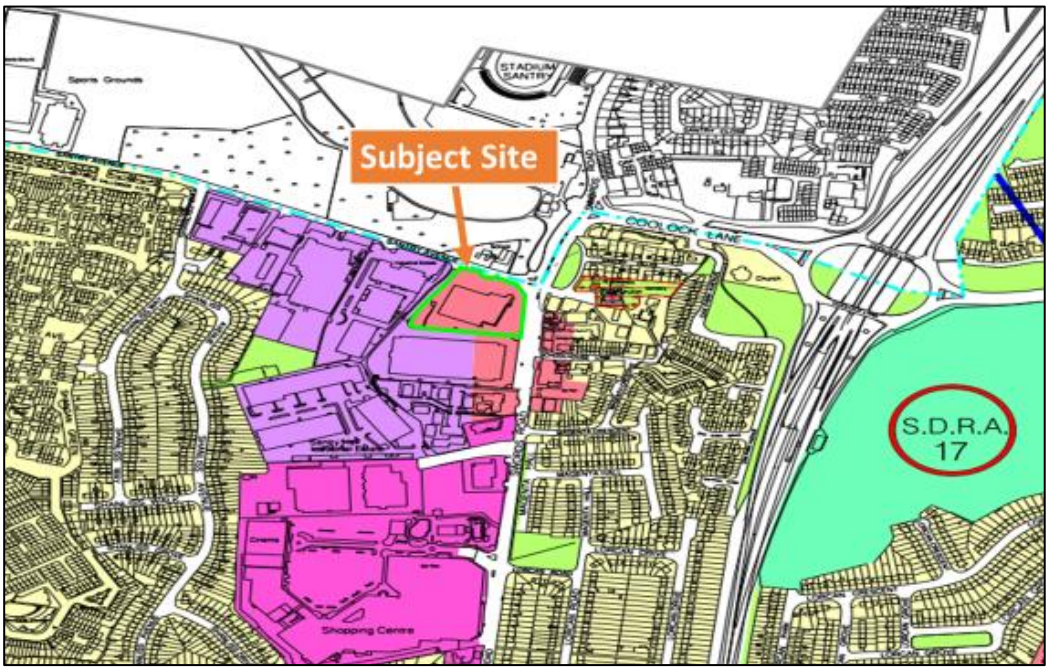


Figure 3.1: Dublin City Development Plan-Land Use Zoning (Extract of Mapset B)

3.1.13 A range of multimodal policies and objectives are outlined in the development plan to achieve these targets and includes the following;

- *"**MT7**: To improve the city's environment for walking and cycling through the implementation of improvements to thoroughfares and junctions and also through the development of new and safe routes, including the provision of foot and cycle bridges. Routes within the network will be planned in*

conjunction with Green Infrastructure Objectives and on foot of (inter alia) the NTA's Cycle Network Plan for the Greater Dublin Area, and the National Cycle Manual having regard to policy GI5 and objective GIO18."

- *"**MT8**: To work with, and actively promote, initiatives by relevant agencies and stakeholders such as An Taisce's 'Green Schools' initiative and the NTAs Smarter Travel Unit, to promote active travel in schools and communities, recognising the health and social benefits of walking and cycling as well as the environmental benefits."*

- *"**MT9**: To promote Bike and Ride at public transport hubs by providing secure, dry, bike parking facilities."*

- *"**MT10**: To provide 30kph speed limits and traffic calmed areas at appropriate locations throughout the city and subject to stakeholder consultation."*

- *"**MT11**: To continue to promote improved permeability for both cyclists and pedestrians in existing urban areas in line with the National Transport Authority's document "Permeability – a best practice guide". Also, to carry out a permeability and accessibility study of appropriate areas in the vicinity of all Luas, Rail and BRT routes and stations, in cooperation with Transport Infrastructure Ireland and the National Transport Authority."*

- *"**MT12**: To improve the pedestrian environment and promote the development of a network of pedestrian routes which link residential areas with recreational, educational and employment destinations to create a pedestrian environment that is safe and accessible to all.*

- *"**MT13**: To promote best practice mobility management and travel planning to balance car use to capacity and provide for necessary mobility via sustainable transport modes.*

3.2 DEVELOPMENT STANDARDS

Car Parking

3.2.1 Reference has been made to Table 16.1 of the Dublin City Development Plan (2016-2022) which outlines the 'Zone 3' car parking standards of Dublin City planning authority. This provides guidance for residential developments stating the following "maximum" car parking provision requirements:

3.2.2 Reference also has been made to Chapter 4 of *Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities*, as published by the DHPLG in December 2020.

3.2.3 Accordingly, the opportunity is available to provide a reduced quantum of residential car parking (i.e. below the DCC standards) for the proposed development. For developments located within an "*Accessible Urban Location*" the DHPLG design standards state in reference to local authority development management requirements that;

> ***"the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances."***

3.2.4 In addition, the DCC Parking Standards also require the following provisions;

- 5% of the total car parking provision will be allocated as mobility impaired parking;
- 10% of the total car parking provision will be allocated as electric vehicle charging stations; and
- Motorcycle parking spaces will be provided at a quantum of 4% of the total car parking provision.

3.2.5 The car parking standards from both standards are detailed in **Table 3.1** below

Unit Type	DCC Standard	DHPLG Guidelines
Residential	1.5 space / unit	*"minimised, substantially reduced or wholly eliminated"*
Visitor	None Detailed	*"it is necessary to ensure, where possible, the provision of an appropriate number of drop off, service, **visitor parking spaces**…"*

Table 3.1: Car Parking Standards

Bicycle Parking

3.2.6 In order to determine an appropriate level of cycle parking provision for the proposed mixed-use development, reference is made to both (i) the DCC requirements, and (ii) the DHPLG guidelines. The cycle parking standards from both standards are detailed in **Table 3.2** below.

Land Use	DCC Standards		DHPLG Guidelines	
Residential Apartments	**Short Term**	**Long Term**	**Short Term**	**Long Term**
	Decided on a case by case	1 / unit	1 / 2 units	1 / bed

Table 3.2: Cycle Parking Standards

4.0 CHARACTERISTICS OF PROPOSAL

4.1 NEIGHBORING PERMITTED PLANNING APPLICATIONS

Mixed Use Development - Planning Ref: 2713/17

4.1.1 The neighbouring site located immediately to the south has been granted planning permission in April 2018 by Dublin City Council. Planning permission was granted for the partial demolition (c.7,781 sq.m GFA) of an existing 8 Bay warehouse (c.9,539 sq.m GFA), and the construction of mixed-use development consisting of 137no. apartment units, retail/commercial space (502 m^2 GFA), Offices (8,717 m^2 GFA) and Crèche (33 1 m^2 GFA). **Table 4.1** below summarizes the development schedule.

Block	Level	Description	No. of Units	GFA (sqm)
A (5 Story Mixed Use)	Ground	Retail/Commercial	3	c.502
	Ground-4	Residential	48	c.5,430
B (5 Story Residential)	Ground-4	Residential	47	c.5,233
C (5 Storey Mixed Use)	Ground	Office	2	c.373
	Ground	Creche	1	c.331
	Ground-4	Residential	42	c.4679
D (4 Storey Mixed Use)	Ground-3	Commercial Office use	-	c.6,733
E (4 Storey Mixed Use)	Ground-3	Commercial Office use	-	c.1,802

Table 4.1 Permitted Development Schedule

4.1.2 The development proposals also included all ancillary and associated site development works including a new Left In/Left Out vehicular via Swords Road at the northeast corner of the site, and environmental improvements along the Swords Road frontage as well as upgrading of the existing vehicular and pedestrian access via Santry Avenue. The proposals also included provision of a total 273 no. car parking spaces of which 122 no. proposed to be provided in the basement and 151 no. on surface with a total of 200 no. cycle parking spaces.

Mixed Use Development -Planning Ref 2737/19

4.1.3 In October 2019, Dublin City Council granted planning permission for a mixed use scheme which would replace the previously permitted 2713/17 proposal. The new permitted scheduled;

- 2017 no. apartment units (Blocks A, B, C);
- 11,933m^2 office space (Block D and E);
- 3 no. retail/commercial units (682 m^2);
- 1 no. creche (161m^2); and
- 318 car parking spaces and 381 bicycle parking spaces.

4.1.4 The site access arrangements for the new permitted scheme very much mirrored that granted previously for 2713/17 scheme with the vehicle access provided via Santry Avenue and Swords Road (Left In / Left Out arrnagement).

***SANTRY PLACE (Phase 1B) - Proposed Modifications (DCC Planning Ref 2543/21) of Permitted Mixed Used Development* (Ref 2737/19)**

4.1.5 This proposed modification of the permitted on-site development (Pl. Ref. 2737/19 & 2713/17) considers the demolition of the remainder of an existing 8-bay warehouse (1,758m²) and the construction of 3 no. 7-10 storey buildings (Blocks D, E & F) accommodating residential, commercial and office uses. The proposed Block D (7 storeys) is a residential building accommodating 48 no. apartments (i.e. 30 no. 1 beds & 18 no. 2 beds) on first to sixth floor, over ground floor commercial use, residential amenity space, & bike and bin stores. Blocks E and F are 7 and 10 storeys respectively, accommodating ground floor commercial use with office space overhead.

Mixed Use Development -Planning Ref. ABP 303358-19

4.1.6 In March 2019 An Bord Pleanála granted permission for SHD scheme on lands at Swiss Cottage Public House as located on Swords Road to the southeast of the subject Chadwicks development site. As detailed in chapter 5, this third party scheme will deliver;

- 120 BTR Apartments
- 167 m^2 Retail
- 88 m^2 Café, and

- 156 m^2 Restaurant

Omni Shopping Centre

4.1.7 There are a number of committed developments within Omni Shopping Centre with proposals of slight changes / additions. The following proposals have been incorporated into this assessment.

- Ambasaid Limited & MKN Investments Limited (Pl. 2876/21)
- JD Sports Fashion Plc (2075/21)
- Ambasaid Limited & MKN Investments Limited (3811/20)
- MKN Investments Limited (3767/18)

4.2 CURRENT SHD APPLICATION PROPOSALS

Development Schedule

4.2.1 The subject proposals seek planning permission to demolish the existing Chadwicks premises and construct 350 no. residential Apartment units across 4 no. blocks (i.e. A/B, C/D, E/F & G) with a total of 209 car parking spaces and 777 cycle parking spaces. In addition to the residential element of the development, 4 no. small commercial/retail units, 1no. medical suite/GP Practice and community amenity are also proposed to be provided on ground floor levels

4.2.2 The development schedule of the proposed residential development comprises of the following:

- 4 no. retail/commercial spaces with total GFA of 631m2 (2 no. units in Block A, 1 no. unit in Block B and 1 no. unit in Block D) and also 1 no. Medical Suite/GP Practice (130.4 m2) within Block B.
- 350 no. apartments (113 no. 1-bed, 218 no. 2-bed and 19 no. 3-bed);
- Ancillary resident facilities such as communal open space, roof terraces, resident lounges, concierge, meeting rooms, laundry etc.
- 2 no. vehicular access points i) On Santry Avenue and ii) off Swords Road as permitted under the adjoining development at Santry Place;
- A total of 209 no. car parking spaces (173 no. within basement and 36 no.
- on surface including 4 GoCar spaces).

- A total of 777 no. bicycle spaces comprising of 719 no. long term (719 spaces within basement) and 58 no. short term on surface level. Also, 9 no. Cargo bike parking spaces provided within basement.

4.2.3 The development will also comprise the closure of the site's existing vehicle access on Santry Avenue and the demolition of Chadwicks building and construction of associated infrastructure including landscaped shared surface courtyard, footpaths, and associated services as referred to in the various Architectural and Engineering drawings that accompany the application.

4.3 SITE ACCESS ARRANGEMENTS

Pedestrian & Cyclists

4.3.1 The proposed development site will be highly accessible to pedestrians and cyclists from Santry Avenue and Swords Road. Pedestrians and cyclists will be given priority within the external site layout to ensure desire lines within the site are accommodated providing a good level of service and ensures the risk of vehicle/pedestrian conflict with vehicles is minimised.

Public Transport

4.3.2 The subject site is also highly accessible by public transport with Dublin Bus and Go-Ahead bus operate several routes including 16, 33, 27b, 41, 41a, 41b and 41c along the R132 Swords Road corridor providing links to Swords northbound and Dublin City Centre and Ballinteer to the south. Also, Go-Ahead operates 17a along R104 Santry Avenue providing links to/from Blanchardstown and Kilbarrack. All of the above routes are highly accessible with the closest interchange opportunities being within approximately 5m except 27b which is within 500m. The site also has excellent links to the Railway Line, with the closest stop (Drumcondra Train station) being located approximately 4km from the subject site.

Vehicle Access

4.3.3 The proposed development will be accessed by vehicles via the R104 Santry Avenue as located in the Site's north western corner as well as Swords Road to the southeast of the site as being accommodated by the neighbouring permitted

scheme proposals 2737/19. **Figure 4.1** overleaf illustrates site layout and locations of the site accesses.

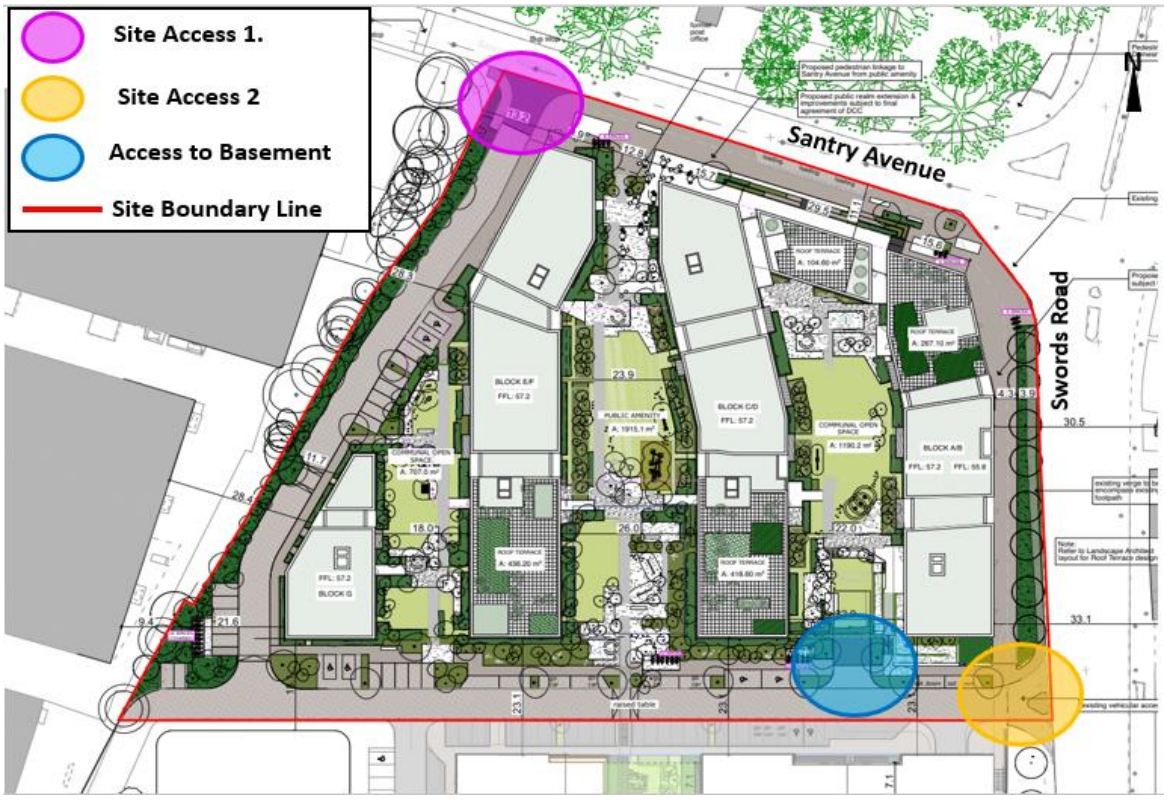


Figure 4.1: Proposed Site Layout and Access Arrangement

4.4 PARKING PROVISION

Bicycle Parking

4.4.1 In reference to Table 4.2 below the development is required to provide total 350 no. cycle spaces (1 space/unit in accordance with the DCC Development standards. Whereas, the DHPLG guidelines requirement is to provide a total 781 no. cycle parking spaces for the proposed development. The development proposes to provide a total **of 777 no. cycle parking spaces** with **719 no.** long term stay (719 within basement) and a further **58** proposed as short term stay on surface level.

Standard/Proposed	Type	Residential	Total
DCC Standards	Short	-	**350**
	Long	350	
DHPLG Standards	Short	175	**781**
	Long	605	
Proposed	Short	58	**777**
	Long	719	

Table 4.2: Cycle parking requirement and proposed provision

Motorcycle Parking

4.4.2 The development plan requires the provision of motorcycle parking spaces at a minimum rate of 4 or more per 100 car parking spaces. Accordingly, a total of 9 no. motorcycle parking spaces are required as part of the subject proposals. The subject scheme proposals accommodate **9 no**. motorcycle spaces. This quantum of provision accords with the DCC Development Plan requirements.

Car Parking

4.4.3 Car parking provision for the development is proposed in reference to guidance from the Department of Housing, Planning and Local Government 'Sustainable Urban Housing: Design Standards for New Apartments – December 2020'. This document highlights that the default policy for new apartment dwellings located within close proximity to public transport (Accessible Urban Locations), is for car parking provision to be ***'minimised, substantially reduced or wholly eliminated'*** in certain circumstances.

4.4.4 It is an objective for this development to reduce the need for residents to travel by car and instead to avail of more sustainable modes of travel in line with current and future travel requirements as set out in recent policy documents within Ireland. It is noted that the concept for car parking reduction in apartments is relatively new in Ireland, and therefore, proposals to implement a more sustainable approach for car parking may take time.

4.4.1 The development in light with the standards and guidelines mentioned in **section 3.2** of this report, proposes a **total of 209** no. on-site dedicated car parking spaces to be provided, of which 173 no. spaces will be provided within the basement car parking and 36 no. residential and set down/visitors spaces also incorporating 6no. mobility impaired and 3 no. car share (GoCar) spaces will be provided at surface level. One car share space can represent the potential requirement for 10-14 car parking spaces. With one space within the proposed development of this size could meet the mobility needs of 20-25% of the residents based on research extracted from Table 7.1 in 'A Good Practice Guide for Planners and Developers - Achieving low car housing: the role of car share clubs' (Yorkshire and Humber Assembly, Nov 2004).

4.4.2 The parking proposals include the following;

- 17 no. visitor parking spaces (8%)

- 4 no. GoCar parking spaces
- 5 no. Set Down/Loading Bays
- 11 no. dedicated mobility impaired parking spaces (5%)
- 21 no. Electric Vehicle and charging point spaces (10%)
- 194 no resident's car parking spaces
- 9 no. motorbike spaces (4%)

4.4.3 The implementation of the proposed mitigation strategy and associated management and promotional interventions mean that car parking provision of total **209 parking spaces (0.6/unit)** is considered appropriate for the subject development particularly considering the sites (i) excellent public transport accessibility characteristics by bus services (ii) the proximity of both local, national and post-primary schools within walking distance of the development, (iii) the sites convenient location to both local retail and strategic Omni Park Shopping Centre, (iv) with a number of strategic employment centres being within a convenient walking / cycling distance and (v) the emerging car ownership trends across Dublin.

4.4.4 **Table 4.3** below outlines car parking requirement and proposed provision.

No. of Units	DCC Standard	DCC Max. Requirement	DHPLG Requirement	Proposed
350 Apts.	1.5 space / unit	525	**Minimised, substantially reduced or wholly eliminated**	209
350		**525**		**209**

Table 4.3: Residential Car parking requirement and proposed provision

4.5 SERVICING ARRANGEMENTS

Residential Element

4.5.1 Service requirements such as waste collection activities are to be accommodated entirely within the proposed development with no such collections being undertaken on the external roads such as Santry Avenue and Swords Rd.

Retail / Commercial Element

4.5.2 A kerbside indented set down area for services / deliveries is to be provided and located on Santry Avenue in the general area of the sites existing Chadwicks access / exit. This proposed facility on Santry Avenue is located in close proximity of 4 no. retail units and 1 no. medical suite / GP Practice unit at ground floor which front onto the public road network. The absence of such a facility will likely result in these activities occurring within the road carriageway and / or seeking to mount the footpath which could result in the creation of a traffic hazard.

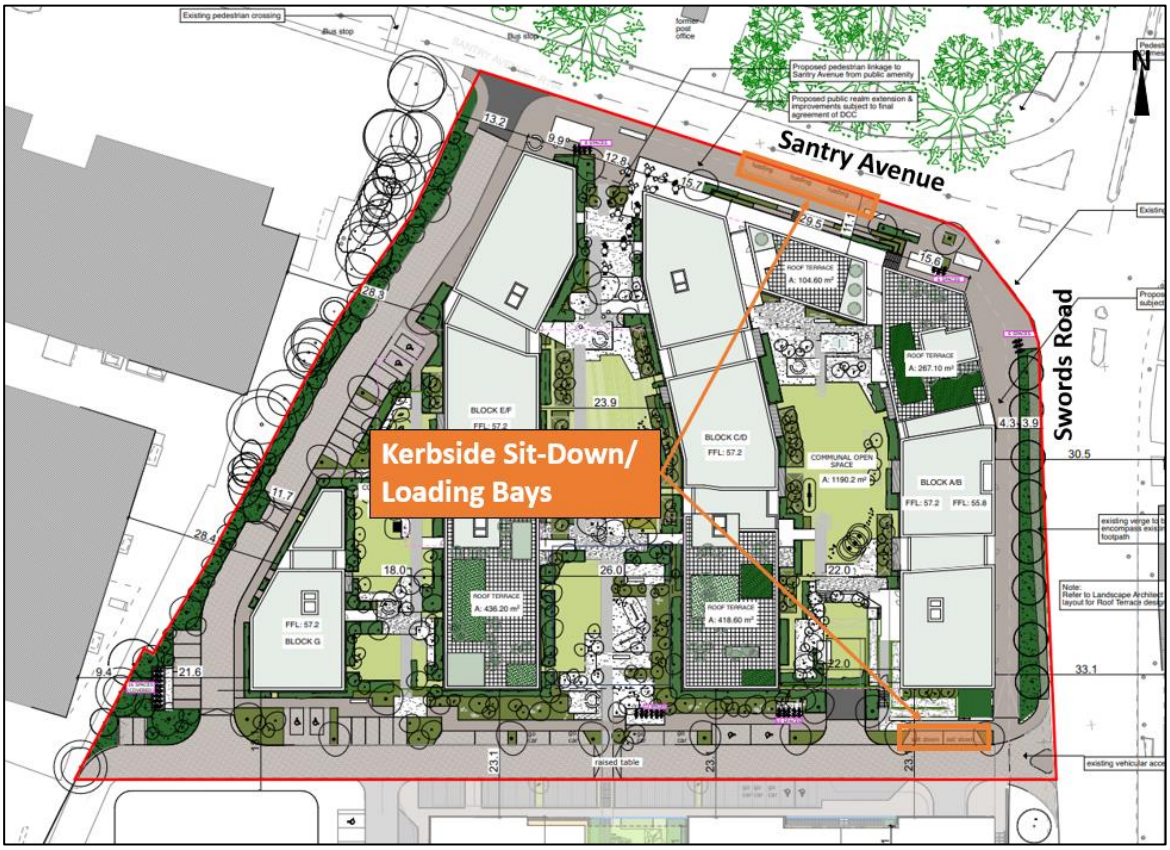


Figure 4.2: Proposed Kerbside Parking Bays

5.0 PARKING STRATEGY

5.1 CAR PARKING DEMAND ASSESMENT

CAR OWNERSHIP & USAGE

5.1.1 In order to determine an appropriate parking provision for the subject development the current demand for car parking within the surrounding area of the proposed development site was researched using the 2016 CSO data and in particular the level of current car ownership. The CSO small area map has been reviewed. The residential properties within the immediate vicinity of the proposed development site are well established housing units and therefore were not reflective of the type of development proposed in terms of undertaking a comparison in travel patterns. Therefore, the search included for areas that were close to the site that contained apartment blocks similar to that of the proposed development. A total of 8 small areas were assessed, as detailed in the map in **Figure 5.1**.

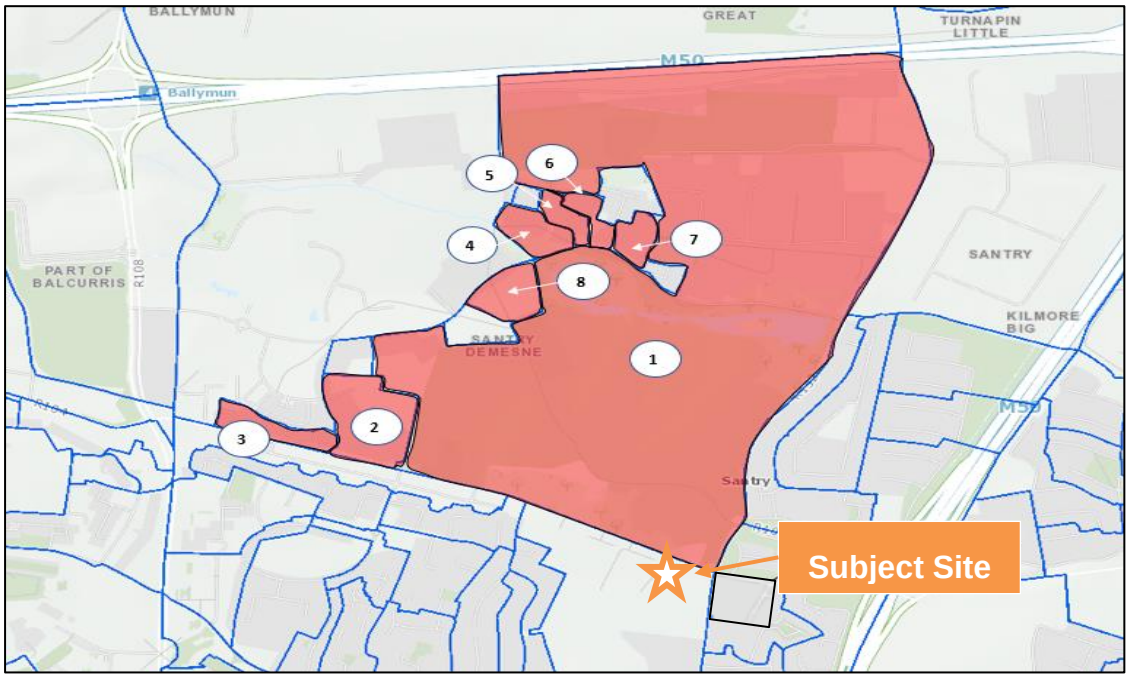


Figure 5.1: 2016 CSO Small Areas containing apartments close to proposed site

5.1.2 A total of 949 units were included in this assessment. The CSO data for households who do not own a car in each of these areas is presented in **Table 5.1** below.

Small Area	No. Apts	No. Houses	No. Households with No Car	% of Households with No Car	Equivalent Rate of Parking Required (Space/Unit)
1	149	7	34	21.7%	0.78
2	82	0	41	50%	0.5
3	94	8	42	41.2%	0.59
4	110	0	21	19.1%	0.81
5	102	0	33	32.4%	0.67
6	99	0	13	13.1%	0.87
7	104	0	24	23.1%	0.77
8	194	0	35	18%	0.82

Table 5.1: 2016 CSO Car Ownership Data

5.1.3 **Table 5.1** highlights that the level of households that do not own a car within each small area varies between a low 13% in Area 6 up to a high 50% in Area 2. The level of car parking required within these locations (where car parking is not restrained) would be, on average, 0.73 spaces per unit. It is noted that these apartments are typically based on past development standards that adhered to the 1 car space per unit for apartment blocks and also based on a different commercial model with parking spaces designated to units as part of the sale/rental agreement.

5.1.4 It should also be considered that whilst many households own a car, they may not avail of their car for commuting purposes and may use their vehicle infrequently. Using a vehicle for commuting purposes could also be hindered by a commuter's destination, for example, does their place of work have restricted car parking allocation in force. Therefore, in order to assess the level of daily use for commuters who drive their vehicle to work, the 2016 CSO data was again reviewed for the modal split for people travelling to Work, School or College. This was assessed for the same 8 small areas as previously discussed. The results of this assessment are detailed in **Table 5.2** overleaf.

Small Area	No. Commuters	% Households with No Car	No. Commuters that Drive	% Commuters that Drive
1	327	21.7%	162	50%
2	164	50%	31	19%
3	152	41.2%	54	36%
4	199	19.1%	94	47%
5	183	32.4%	54	30%
6	161	13.1%	80	50%
7	166	23.1%	73	44%
8	377	18%	171	45%

Table 5.2: 2016 CSO Data - Percentage of Commuters that use their Vehicle.

5.1.5 **Table 5.2** outlines that although car ownership within these locations is at an average 73%, the percentage of commuters that use their vehicle to drive to work, college or school is lower at an average of 40% over all areas assessed. This highlights that although commuters may own vehicles within these areas, a high proportion of them avail of other, more sustainable, modes of travel for commuting purposes. It is also noted that the majority of areas reviewed for this assessment are located along internal road networks and away from the main road carriageways where public transport routes and stops are situated. The proposed development, however, is located adjacent to the Swords Road and is situated in close proximity to excellent and improving public transport routes and stops.

AGE DEMOGRAPHIC SURROUNDING DEVELOPMENT SITE

5.1.6 Considering the type of development proposed, it was considered useful to establish the general age demographic for properties within the area surrounding the proposed development site. The CSO 2016 small areas highlighted in **Figure 5.1** was used for this assessment.

5.1.7 **Figure 5.2** shows that the majority of residents, 70%, within the surrounding areas in Santry are renting their accommodation with 30% of residents who own their property.

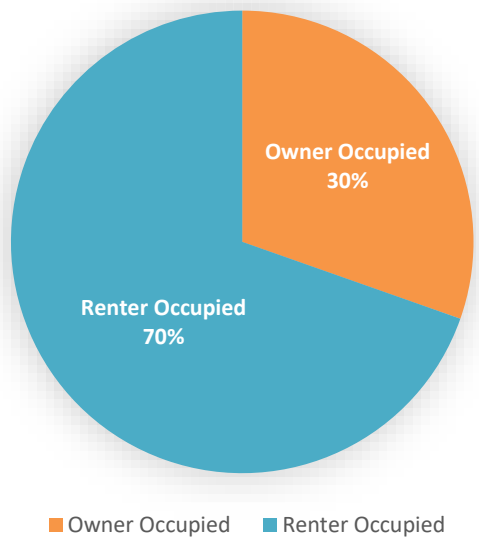


Figure 5.2: CSO 2016 Type of Accommodation in Santry

5.1.8 This indicates that there is a demand for rental accommodation within the area. From recent research undertaken regarding age demographics and rental accommodation, it showed that the age demographic of 25 - 35 years has the highest demand for renting their accommodation rather than buying.

5.1.9 The overall age profile for the 8 locations close to the proposed development site were assessed and are outlined in the graph in Figure 5.3. The results show that there is a young age demographic within Santry with the highest number of residents between the 25 – 39 age profile within this area.

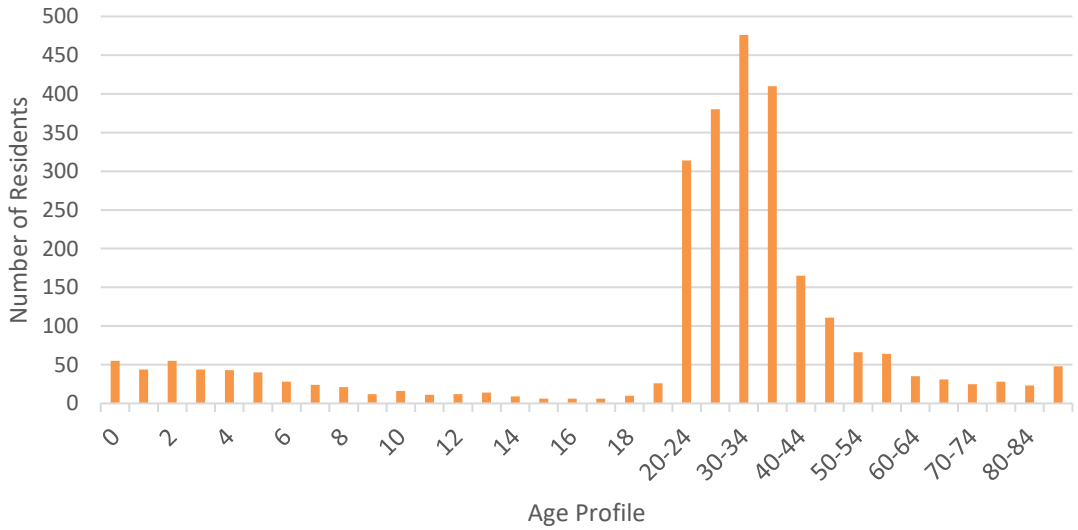


Figure 5.3: CSO 2016 Age Profile for Santry Area from the Small Area Sites

5.1.10 The level of car ownership amongst this demographic is decreasing with many unprepared to commit to the additional cost of retaining a designated car parking space when viable alternative modes of travel are available.

SITE ACCESSIBILITY

5.1.11 As detailed in previous section, the proposed development greatly benefits from a vast and dense network of walkable streets, catered by adequate footpaths and pedestrian crossings. The site is also very accessible by bicycle within a network of cyclable streets and dedicated cycle facilities in the vicinity of the site. In addition to the site's accessibility by existing public transport (bus and links to Drumcondra Train station which is with 4km), the development site is located directly adjacent to the proposed NTA BusConnects 'Swords to City Centre corridor'

5.1.12 The BusConnect proposals include improved pedestrian and Cycle facilities as well as new bus stop that will be provided adjacent to the proposed site entrance along Swords Road (as being delivered by the neighbouring permitted scheme (Ref. 2713/17). Therefore, the subject site will benefit from enhanced levels of accessibility and mobility offered by NTA Bus Connects proposals. Bus Connects will also offer improved cycle and walking facilities surrounding the site in addition to the efficient and high frequency bus service and connectivity.

5.1.13 The proposed development site will be also highly accessible by the proposed the Metrolink with the closest interchanges Northwood and Ballymun both located within approximately 1.6km from to the entrance of the subject site.

5.2 CAR PARKING PROVISION

OVERALL CAR PAKRING QUANTIUM

5.2.1 The proposed development in light with the standards and guidelines mentioned in **section 3.2** of this report, proposes a **total of 209** no. (0.6/unit) on-site dedicated car parking spaces to be provided, of which 173 no. spaces will be provided within the basement car parking and 36 no. residential and set down/visitors spaces also incorporating 6 no. mobility impaired and 3 no. car share (GoCar) spaces will be provided at surface level

5.2.2 The parking proposals include i) Disabled Parking, ii) EV Parking, iii) Car Share, iv) Visitor Parking;

DISABLED PARKING

5.2.3 The DCC Development Plan states that for residential developments, ''At least 5% of the total number of spaces should be designated car-parking spaces, with a minimum provision of at least one such space"

5.2.4 The development proposals include provision of **18 no.** disabled parking spaces with 12no no. spaces in basement and 6 no. spaces on surface level and is in accordance with the DCC development management standards.

EV CAR PARKING

5.2.5 The development proposals include of **21 no**. car parking spaces equipped with vehicle charging point to be provided within basement which is compliant with the standards. Should the demand for EV parking spaces increase beyond supply, additional EV charging facilities can be easily retrofitted.

CAR SHARE VEHICLES

5.2.6 The subject scheme proposes to include **4 no.** car club spaces at a surface level. Managed by a specialised private operator (i.e. **GoCar**) all residents will have the option to become members of the car share service. On becoming members, residents can then book cars online or via the app for as little as an hour, then unlock with their phone or GoCar. The keys are in the car, with fuel, insurance and city parking all included. The benefits of such car sharing services include:-

- the reduction of the number of cars on the road and therefore traffic congestion, noise and air pollution;
- minimised demand for car parking and frees up land traditionally used for private parking spaces;
- increased use of public transport, walking and cycling as the need for car ownership is reduced; and

5.2.7 Car sharing allows those who cannot afford a car the opportunity to drive, thereby encouraging social inclusivity.

VISITOR CAR PARKING

5.2.8 The subject development scheme proposes to include for **17 no.** dedicated visitor car parking spaces at a surface level.

5.2.9 The implementation of the proposed mitigation strategy and associated management and promotional interventions mean that car parking provision of

total **209 parking spaces (0.6/unit)** is considered appropriate for the subject development particularly considering the sites (i) excellent public transport accessibility characteristics by bus services (ii) the proximity of both local, national and post-primary schools within walking distance of the development, (iii) the sites convenient location to both local retail and strategic Omni Park Shopping Centre, (iv) with a number of strategic employment centres being within a convenient walking / cycling distance and (v) the emerging car ownership trends across Dublin.

5.2.10 **Figure 5.4** and **Figure 5.5** below illustrate the layout of car parking within basement and on surface level respectively.

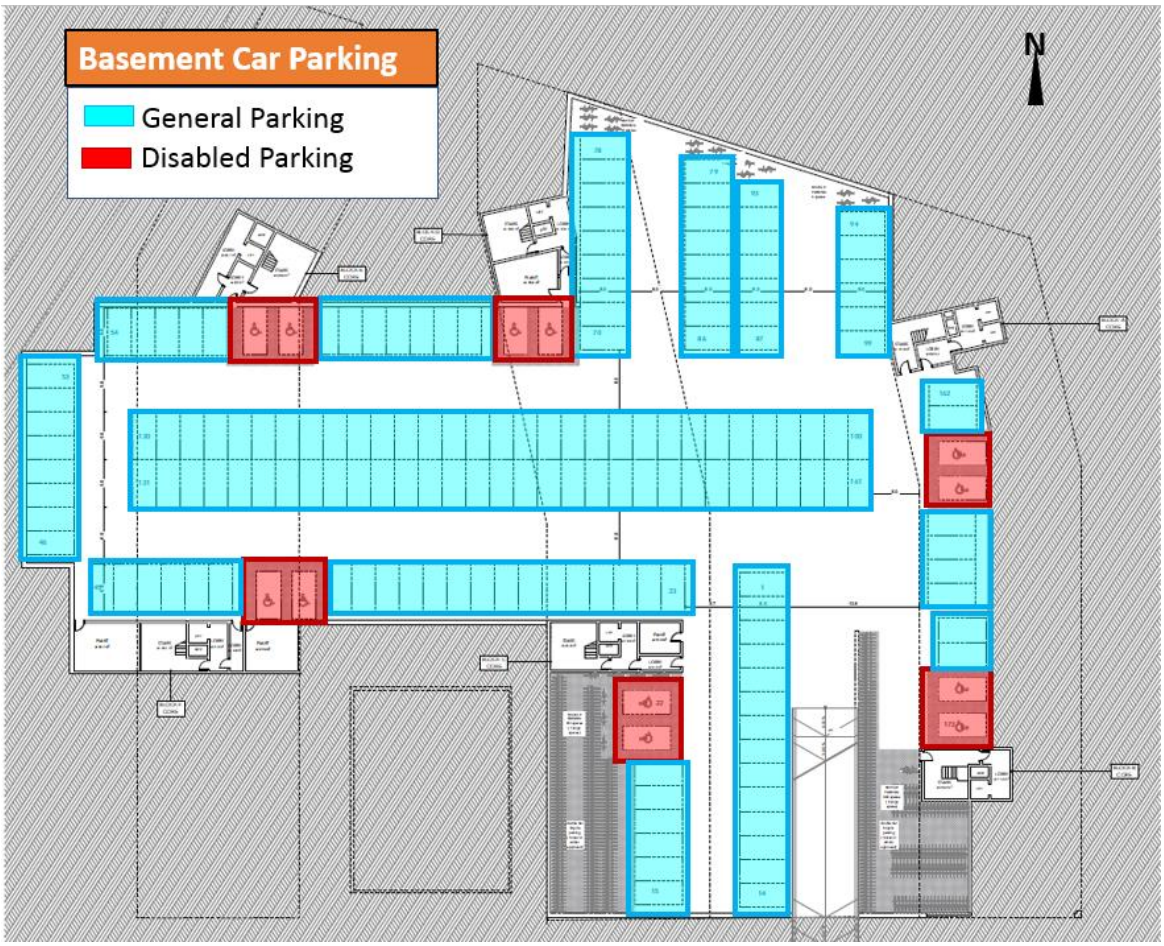


Figure 5.4: Basement Car Parking Lauout

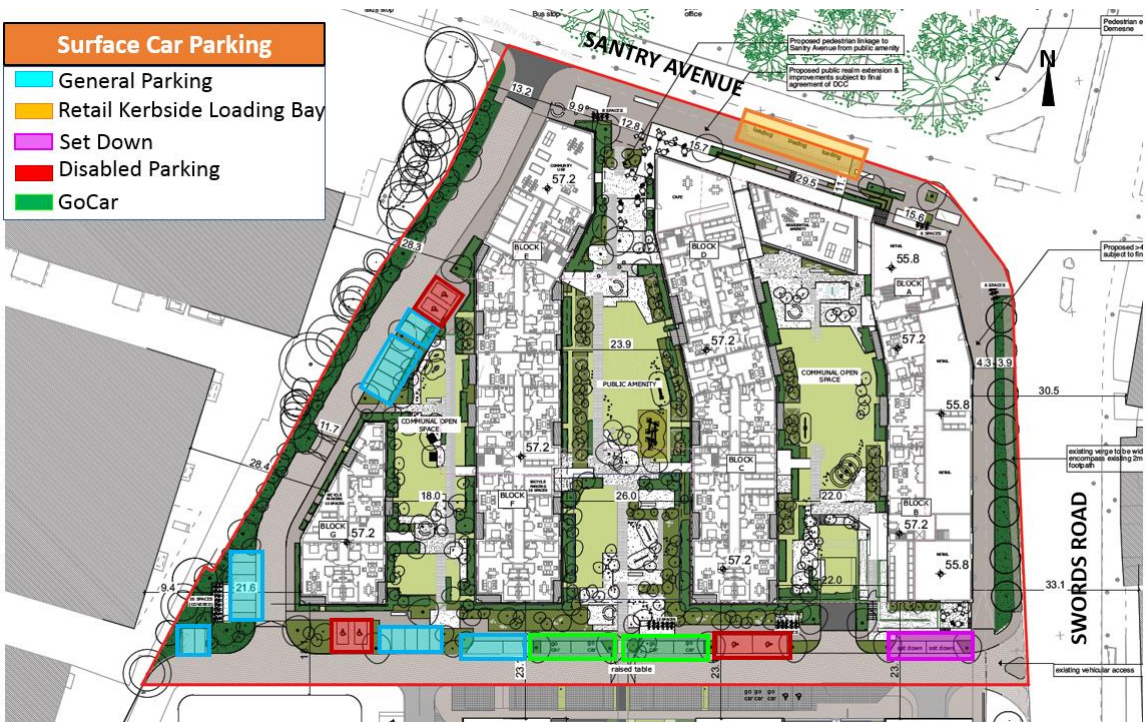


Figure 5.5: Surface Car Parking Layout

5.3 CAR PARKING MANAGEMENT STRATEGY

5.3.1 It is intended that the proposed development will be, in relative terms, be 'car-lite' when compared to DCC development management standards. The business plan for the development recognizes that this restriction (0.6 spaces per residential unit) may limit the overall number of tenants / owners with 1 or more cars, however the residual market is considered more than sufficient to support a viable business strategy.

5.3.2 All marketing material will make it clear that the Santry Avenue developments on-site car parking spaces will remain within the control of the appointed management company. A management regime will be implemented by the development's management company to control access to these on-site apartment car parking bays thereby actively managing the availability of on-site car parking for residents and visitors.

5.3.3 Nevertheless, all residents of the proposed residential apartment scheme will have the opportunity to apply to the on-site management company for both a;

- Residents car parking permit (updated weekly, fortnightly, monthly, quarterly or annually) and subsequently access to a dedicated (assigned) on-site basement car parking space or

- Visitor's car parking permit for a short period of time.

5.3.4 The building management team will be responsible for the day-to-day management of car parking operations. Residents who request a private car parking space will be allocated one on a 'first come, first served' basis.

5.3.5 A charge will be applied to obtain a permit with the objective of covering the associated management costs, discouraging long term usage of the car parking space and encouraging travel by sustainable modes of travel.

5.3.6 Access to the basement car park will be strictly controlled by barriers. Entry will be facilitated by coded entry and/or number plate recognition which will permit registered vehicles only to enter. The car parking management regime in place at the Santry Avenue residential development will therefore ensure that the risk of any 'overspill' car parking on the surrounding streets is minimised.

5.3.7 Due to the potential demand from neighbouring developments and the adjoining Core Bus Corridor (e.g. informal Park & Ride abuse) it is considered a necessity that access to on-site car parking is actively managed 24/7 to safeguard on-site car parking availability for the use of residents and visitors to the development and minimise the potential for inappropriate use by external parties.

5.3.8 Taking the above factors into account, including:

- The low levels of car ownership based on location and
- The requirement for car parking to be 'minimised, substantially reduced or wholly eliminated' as set out in the DHPLG guidelines (December 2020) for new apartments.

5.3.9 It is therefore considered that the proposed provision of 209 no. car park spaces, for the subject development including 3 no. car share bays assigned to the 350 no. apartments is appropriate.

5.4 BICYCLE PARKING PROVISION

5.4.1 Increasing cycle parking is an alternative measure when reducing car parking spaces. A total of **777 no.** bicycle parking spaces are proposed for this development with a total of 350 no. residential units.

5.4.2 The 777 no. cycle provision includes;

- 719 no. 'long term' spaces are located in the basement
- 58 no. 'short term' visitor parking located at surface level.

5.4.3 The cycle provision also includes 9 no. Cargo parking spaces within basement. It is noted that the provision of cycle parking proposed within the development exceeds DCC standards and exceed the full DHPLG guideline for long term bicycle parking and is therefore considered adequate to accommodate residents' requirements and support / encourage modal shift away from private cars to a more sustainable travel by cycle.

5.5 MOTORCYCLE PARKING PROVISION

5.5.1 The development proposes a total of **9 no.** motorcycle parking spaces to be provided within basement. This quantum of provision accords with the DCC Development Plan requirements.

5.5.2 **Figure 5.6** and **Figure 5.7** overleaf illustrate the layout of bicycle parking within basement and on surface level respectively.

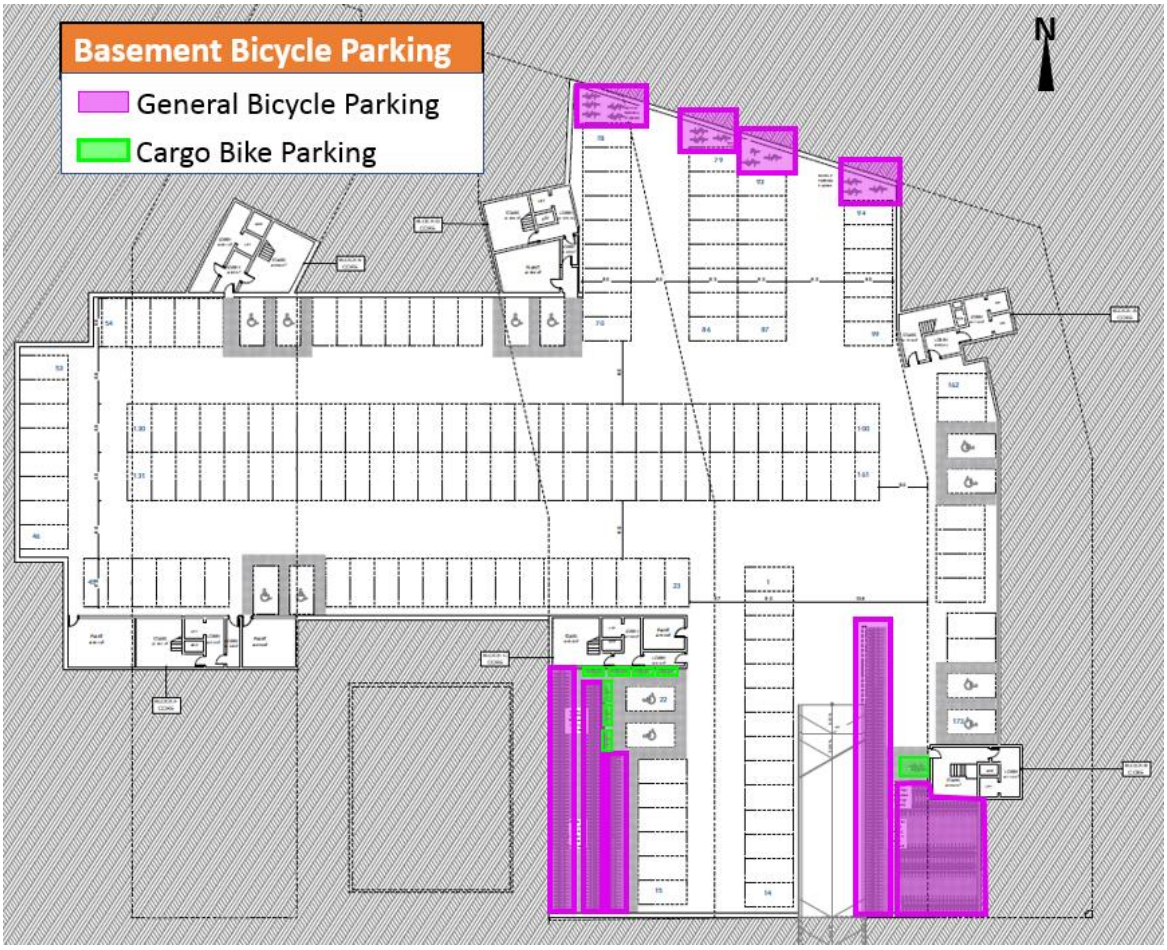


Figure 5.6: Basement Bicycle Parking Locations

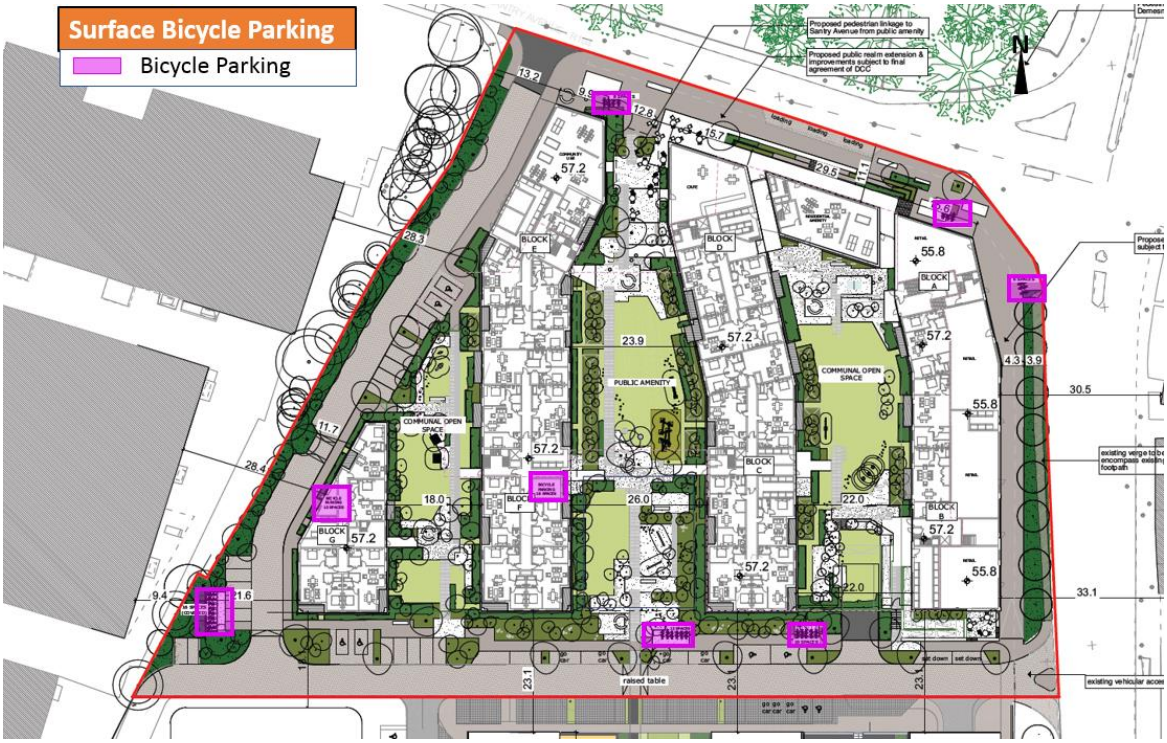


Figure 5.7: Surface Bicycle Parking Locations

6.0 TRIP GENERATION AND DISTRIBUTION

6.1 BASELINE TRAFFIC CONDITIONS

6.1.1 In order to establish the existing local road networks traffic characteristics and subsequently enable the identification of the potential impact of the proposed residential development, traffic survey data recorded on 06th February 2020 was used for the purpose of this assessment.

6.1.2 The aforementioned traffic surveys (weekday classified junction turning counts) were conducted by IDASO between 07:00 AM to 10:30 AM and from 16:00 to 19:00 PM. The surveys undertaken included Junction Turning Counts (JTC). JTCs were carried out at two junctions within close proximity to the proposed development site. The following two locations were included within the survey (Figure 6.1):

- **Junction 1** – Swords Road / Santry Avenue
- **Junction 2** – Swords Road/Schoolhouse Lane

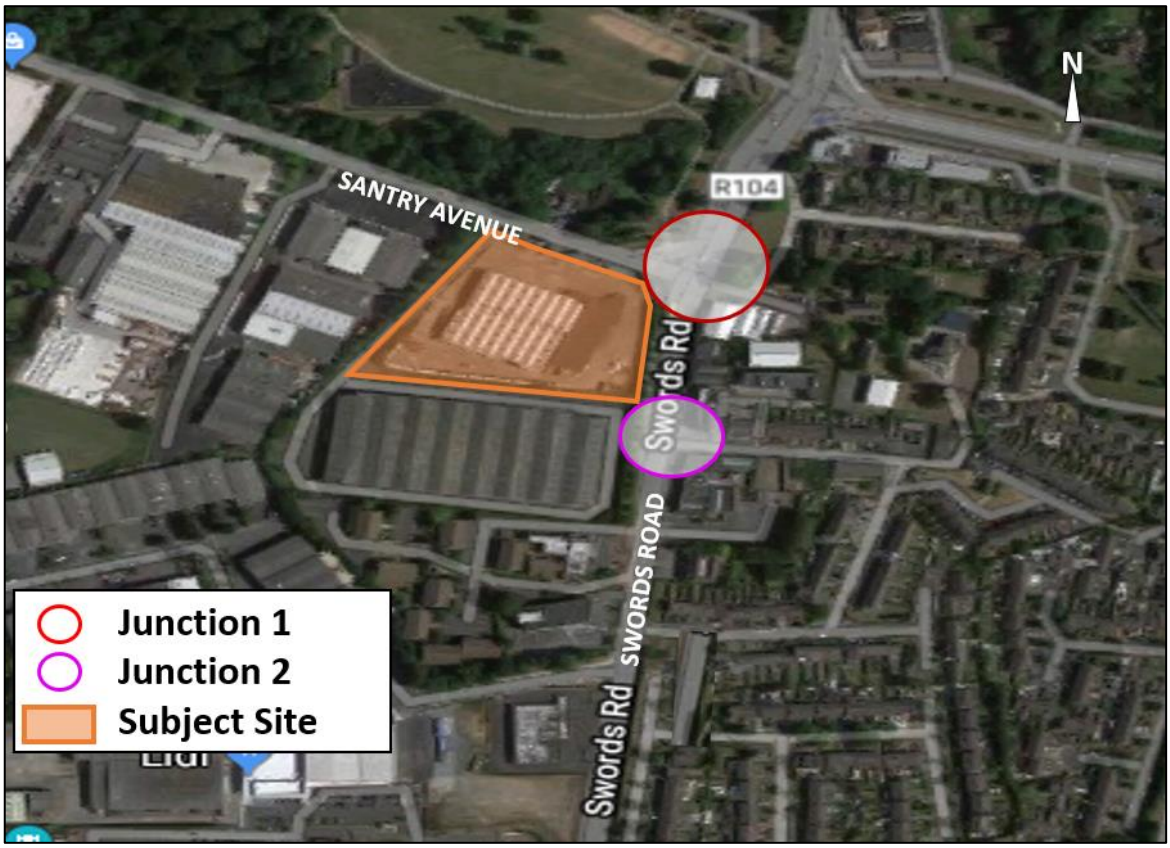


Figure 6.1: Traffic Survey locations

6.1.3 In order to analyse and assess the predicted traffic generation from the proposed residential development upon the local road network, an area wide traffic model

incorporating these local junctions was created by DBFL. Base traffic flows and the Flow Diagrams for all scenarios are illustrated within **Appendix B**

6.2 TRAFFIC GROWTH

6.2.1 An Opening Year of 2023 has been assumed for this assessment. In accordance with TII (NRA) Guidance, Future Design years (+5 and +15 years) of 2028 and 2038 have also been adopted.

6.2.2 The TII Project Appraisal Guidelines (PAG) have been utilized to determine the traffic growth forecast rates. The traffic growth forecast rates within the PAG ensures local and regional variations and demographic patterns are accounted for.

6.2.3 Table 6.1: Link Based Growth Rates within the PAG (2019) provides Annual National Traffic Growth Factors for the different regions within Ireland. The subject site lies within Dublin metropolitan area with the growth factors as outlined within **Table 6.1** below.

Region	Name	Low Sensitivity Growth Rates				Central Growth Rates				High Sensitivity Growth Rates			
		2016-2030		2030-2040		2016-2030		2030-2040		2016-2030		2030-2040	
		LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1	Dublin	1.0146	1.0280	1.0034	1.0116	1.0162	1.0295	1.0051	1.0136	1.0191	1.0328	1.0087	1.0172

Table 6.1: National Traffic Growth Forecasts: Annual Growth Factors

(Extract from Table 6.1 PAG)

6.2.4 Applying the annual factors (central growth) as outlined in Table 5.1 above for the adopted Opening Year of 2023 and Future Horizon Years of 2028 (+5 years) and 2038 (+15 years), the following growth rates have been adopted to establish corresponding 2023, 2028 and 2038 baseline network flows: -

- 2020 to 2023 – 1.0494 (or 5%);
- 2020 to 2028 – 1.1372 (or 14%); and
- 2020 to 2038 – 1.2098 (or 21%).

6.2.5 Traffic flow diagrams for the 2023, 2028 and 2038 flows are illustrated in **Appendix B** of this report.

6.3 TRAFFIC GENERATION - EXISITNG CHADWICKS BUILDING MERCHNATS

6.3.1 To estimate the potential level of vehicle trips that could be generated by the existing building merchants (4196.8 sqm) on site, reference has been made to the TRICS database. TRICS provides trip rate information for a variety of different land uses and development types, which can be applied to the subject development.

6.3.2 TRICS data is primarily UK based, although a number of Irish sites have recently been included. DBFL considers that TRICS will provide a reasonable indication of traffic generation from the proposed development. TRICS takes into account important site selection filtering factors such as levels of population, location type, local public transport provision, and development size and car ownership level, amongst others. **Table 6.2** and **Table 6.3** below indicates the TRICS derived trip rates and associated vehicle traffic generation for the existing Chadwicks Building on the subject site.

Land Use	Quantity/GFA	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		Arr	Dep	Total	Arr	Dep	Total
Building Merchants	**Per 100 sqm**	0.391	0.276	0.667	0.230	0.253	0.483

Table 6.2: Existing Chadwicks Building Vehicle Trip Rates

Land Use	Quantity/GFA	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		Arr	Dep	Total	Arr	Dep	Total
Building Merchants	**4196.8 sqm**	16	12	28	10	11	20

Table 6.3: Sites Existing (Chadwicks) Vehicle Trips

6.4 TRAFFIC GENERATION – COMMITTED DEVELOPMENT

SANTRY PLACE- Mixed Used Development (Ref 2737/19)

6.4.1 The Santry Place committed mixed-use development immediately south of the proposed residential development considers the implementation 207 apartment units, office spaces, retail units and creche. **Table 6.4** below summarises the AM and PM peak hour weekday traffic that is predicted to be generated for the proposed development based on the above trip rates.

6.4.2 The trip generation exercise detailed in the scheme planning documentation reveals that the committed development has the potential to generate total 176 two-way vehicle trips during AM peak hour and 177 two-way vehicle trips during PM peak hour periods. These traffic movements will utilise the same site access junctions as the proposes development on the Chadwicks site.

Land Use	Quantity/GFA	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		Arr	Dep	Total	Arr	Dep	Total
Apartments	**207**	10	45	55	39	10	48
Office	**11933**	85	8	93	4	70	74
Retail	**682**	12	10	22	24	25	50
Creche	**161**	4	2	6	2	3	5
Total		**111**	**65**	**176**	**70**	**108**	**177**

Table 6.4: Predicted Reduced Traffic Generation (Vehicles)

SANTRY PLACE (Phase 1B) - Proposed 2021 Modification (DCC Planning Ref 2543/21) of Permitted Mixed Used Development (Ref 2737/19 & 2713/17)

6.4.3 This proposed modification of the permitted on-site development (Pl. Ref. 2737/19 & 2713/17) considers the demolition of the remainder of an existing 8-bay warehouse (1,758m²) and the construction of 3 no. 7-10 storey buildings (Blocks D, E & F) accommodating residential, commercial and office uses. The proposed Block D (7 storeys) is a residential building accommodating 48 no. apartments (i.e. 30 no. 1 beds & 18 no. 2 beds) on first to sixth floor, over ground floor commercial use, residential amenity space, & bike and bin stores. Blocks E and F are 7 and 10 storeys respectively, accommodating ground floor commercial use with office space overhead.

6.4.4 The proposed development also provides for communal open space (392m²), 67 no. surface car parking spaces (including 1 no. car share / GoCar), 41 no. under croft parking spaces, 212 no. bicycle parking spaces consisting of internal and external spaces, and all associated site development works, on a site area of 0.65ha.

6.4.1 The Traffic and Transportation section within Engineering Services Report (dated March 2021) outlines the nett difference in predicted traffic generation as a result of the proposed amendments. The analysis reveals that the proposed amendments will result in a very slight increase in the number of vehicles generated on-site. A total of only 18 more two-way vehicle trips are predicted in the AM and PM peak hour periods (or one additional vehicle every 3 minutes 20 seconds in total).

6.4.2 **Table 6.5** below illustrates comparison of vehicle trips for the permitted (Blocks E&D) and the proposed amendments (Blocks D, E & F).

Development	Land Use	Period	Trip Rates[A]		Vehicle Trips		
			Inbound	Outbound	Inbound	Outbound	Two-Way
Permitted (Block E & D)	**Office** (11,691m²)	AM	0.715	0.067	84	8	**92**
		PM	0.036	0.586	4	69	**73**
	Residential (0 Units)	AM	-	-	0	0	**0**
		PM	-	-	0	0	**0**
	Subtotal	**AM**	-	-	84	8	**92**
		PM	-	-	4	69	**73**
Proposed Amendment (Blocks D, E & F)	**Office** (12,629.8m²)	AM	0.715	0.067	90	8	98
		PM	0.036	0.586	6	74	80
	Residential (48 Units)	AM	0.047	0.218	2	10	12
		PM	0.186	0.046	9	2	11
	Subtotal	**AM**			92	18	**110**
		PM			15	76	**91**
Net Difference		**AM**	-	-	+8	+10	**+18**
		PM	-	-	+11	+7	**+18**

Notes : A – The above vehicle trip rates have been extrapolated from the permitted schemes Transport Statement Report (Pl. Ref. 2737/190)

Table 6.5: Comparison of Permitted and Proposed Vehicle Trips

***Swiss Cottages Mixed Use Development* (Ref. ABP 303358-19)**

6.4.3 The Swiss Cottages committed development is located on Swords Road East of the proposed residential development. In order to establish the potential quantum of traffic generated by the Swiss Cottage committed development, reference has been made to the corresponding TTA report (December 2019) that was submitted with the application. **Table 6.6** and **Table 6.7** below indicates the TRICS derived trip rates and associated vehicle traffic generation for the Swiss Cottages committed development.

Floor	Land Use	Units	AM Peak Hour (08:00-09:00)		PM Peak Hour (17:15-18:15)	
			Arr	Dep	Arr	Dep
Ground	Retail	per 100sqm	6.577	6.184	7.78	8.088
	Café	per 100sqm	0	0	2.897	2.016
	Restaurant	per 100sqm	0	0	3.718	1.804
Ground to 4th	Apartments	per dwelling	0.048	0.176	0.155	0.067

Table 6.6: Swiss Cottage Development Vehicle Trip Rates

Floor	Land Use	Units /GFA	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:15-18:15)		
			Arr	Dep	2-Way	Arr	Dep	2-Way
Ground	Retail	167	11	10	21	13	14	27
	Café	88	0	0	0	3	2	5
	Restaurant	156	0	0	0	6	3	9
Ground-Fourth	Apartments	120	6	21	27	19	8	27
Total Vehicle Trips			**17**	**31**	**46**	**40**	**27**	**67**
Total Vehicle Trips (with Discount Factor)			**12**	**27**	**40**	**31**	**18**	**49**

Table 6.7: Swiss Cottage Development Vehicle Trip Generation

OMNI SHOPPING CENTRE

6.4.4 There are a number of committed developments within Omni Shopping Centre with proposals of slight changes in the exiting developments and some only with change of use. Below are the committed developments with the predicted vehicle trip generation.

A) Ambasaid Limited & MKN Investments Limited (Pl. 2876/21)

6.4.5 The proposed development will consist of the change of use from existing retail (unit49/50) and amusement use (units 50A/76/91/92 & 92A) to restaurant use on the ground floor (units 49/50/50A/76) and change of use on the 1sr floor (units 91, 92 & 92A) to office use. Removal of the existing brick and render façade (including timber shopfronts) to be replaced with a new stone and glazed façade (to match the existing adjoining building 95) with associated minor site works at Omni Park Shopping Centre.

6.4.6 **Table 6.8** below indicates the TRICS derived trip rates and associated vehicle traffic generation for the existing use and proposed use of the development.

Development	Land Use	Period	Trip Rates		Vehicle Trips		
			Inbound	Outbound	Inbound	Outbound	Two-Way
Existing Use	Amusement A (387m²)	AM	0.691	0.44	3	2	0
		PM	1.101	1.07	4	4	8
	Amusement (Ground Floor) (393 m²)	AM	0.691	0.44	3	2	4
		PM	1.101	1.07	4	4	9
	Subtotal	**AM**	-	-	**5**	**3**	**9**
		PM	-	-	**9**	**8**	**17**
Proposed Change of Use (Ref.2876/21)	Office (387m²)	AM	0.414	0.077	2	0	2
		PM	0.046	0.383	0	1	2
	Restaurant (Ground Floor) (393 m2)	AM	0.274	0.206	1	1	2
		PM	1.738	0.97	7	4	11
	Subtotal	**AM**			**3**	**1**	**4**
		PM			**7**	**5**	**12**
Net Difference		**AM**	-	-	**-3**	**-2**	**-5**
		PM	-	-	**-2**	**-3**	**-5**

Table 6.8: Comparison of Existing and Proposed (Vehicle Trips)

B) JD Sports Fashion Plc (2075/21)

6.4.7 The development will consist of external and internal works, including the following: a) external works comprising of the development of new signage, including illuminated built up lettering; b) internal works, including the removal of existing shop signage, the installation of internally illuminated fascia return panels, the installation of internal security roller shutters, and the installation/development of a new mezzanine retail floor (c. 230 sqm) increasing the size of the retail unit from c. 523 sqm to c. 753 sqm). The development also includes all associated site works and services above and below ground.

6.4.8 **Table 6.9** below indicates the TRICS derived trip rates and associated vehicle traffic generation for the existing use and proposed changes.

Development	Land Use	Period	Trip Rates		Vehicle Trips		
			Inbound	Outbound	Inbound	Outbound	Two-Way
Existing Use	Retail A (523m²)	AM	0.317	0.103	2	1	2
		PM	1.059	1.25	6	7	12
	Total	AM	-	-	2	1	2
		PM	-	-	6	7	12
Proposed Changes (Ref.2075/21)	Retail with 230sqm new mezzanine (753m²)	AM	0.317	0.103	2	1	3
		PM	1.059	1.25	8	9	17
	Total	AM			2	1	3
		PM			8	9	17
Net Difference		AM	-	-	1	0	1
		PM	-	-	2	3	5

Table 6.9: Comparison of Existing and Proposed JD Sports (Vehicle Trips)

C) Ambasaid Limited & MKN Investments Limited (3811/20)

6.4.9 Planning permission for development on the island site known as Building 126 (formerly known as units 122A & B Plan Reg Ref 3767/18) to east of Omni Park Shopping Centre, Swords Road, Santry, Dublin 9. The proposed new development will consist of a 3 storey multi-tenant commercial building c. 1992 sqm with full banking and financial service uses on ground level in unit 126-1 circa 390 sqm to include cashiers, self-service devices, offices, event space, external ATM and ancillary accommodation and unit 126-2 circa 109 sqm of retail use; associated illuminated corporate signage at corner entrances indicated on elevations, first floor office accommodation circa 558 sqm, second floor of media-associated use

circa 558 sqm; 11 car parking spaces with bicycle stands, plant room and waste storage facility, including associated modifications to internal road and footpath layouts.

6.4.10 **Table 6.10** below indicates the TRICS derived trip rates and associated vehicle traffic generation for proposed development.

Development	Land Use	Period	Trip Rates		Vehicle Trips		
			Inbound	Outbound	Inbound	Outbound	Two-Way
Proposed Multi-Tenant Commercial Building (Ref.3811/20)	**Office (GF)**	AM	0.414	0.077	2	0	2
	(390m²)	PM	0.046	0.383	0	1	2
	Office (1st floor)	AM	0.41	0.08	2	0	3
	(558m²)	PM	0.05	0.38	0	2	2
	Media associated use (2nd floor)	AM	0.414	0.077	2	0	3
	(558m²)	PM	0.046	0.383	0	2	2
	Retail (GF)	AM	0.691	0.44	3	2	4
	(109m²)	PM	1.101	1.07	4	4	9
	Total	**AM**	-	-	**7**	**2**	**9**
		PM	-	-	**7**	**6**	**13**

Table 6.10: Permitted Building 126 Development Vehicle Trips

D) MKN Investments Limited (3767/18)

6.4.11 The proposed development will consist of the erection of new units 122A (300 sqm) and 122B (300 sqm) for use as cafe, restaurant and retail food service with external deck area on vacant site and a change of use of existing unit 122 (150 sqm) from motor accessories area and car wash to cafe restaurant, retail food service use, together with ancillary rear service loading area, 18 no carparking spaces to forecourt, with elevational changes including corporate illuminated signage and other ancillary associated works.

6.4.12 **Table 6.11** overleaf indicates the TRICS derived trip rates and associated vehicle traffic generation for proposed development.

Development	Land Use	Period	Trip Rates		Vehicle Trips		
			Inbound	Outbound	Inbound	Outbound	Two-Way
Proposed Development (Ref.3767/18)	**Unit 122 - Existing use (Motor Accessories area-car wash)** (150m²)	AM	0.33	0.25	0.5	0.4	1
		PM	0.5	0.80	1	1	2
	Unit 122 - Proposed use (Café/restaurant) (150m²)	AM	0.41	0.08	1	0.1	1
		PM	0.05	0.38	0.1	1	1
	Unit 122A &122B - Restaurant, Café retail food services (600m²)	AM	0.414	0.077	2	0.5	3
		PM	0.046	0.383	0.3	2	3
	Total	**AM**	-	-	**3**	**0.2**	**3**
		PM	-	-	**-0.4**	**2**	**1**

Table 6.11: Permitted MKD Development Vehicle Trips

6.5 TRAFFIC GENERATION – PROPOSED DEVELOPMENT

6.5.1 TRICS generated trip rates for the proposed apartment development during the weekday morning and evening peak hour periods are outline in **Table 6.12**. The trip rate is then adjusted to reflect the basic car allocation characteristics of the development based upon the ratio of proposed car parking to the corresponding Equivalent parking (1 space/1 unit) parking level. It has been assumed that the developments non-residential units will serve predominantly the proposed development, the local walking catchment and passing traffic. As such these non-residential uses are not predicted to give rise to material levels of the additional vehicular traffic.

6.5.2 The proposed residential development will be implemented in three different phases i) Phase 1: Blocks A & B, ii) Phase 2: Blocks C, D & Amenity Building and iii) Phase 3: Blocks D, F & G. For the purpose of this assessment, it is assumed that Phase 1 will be completed and occupied in 2023 and Phase 2 & 3 will be completed and occupied in 2028+ years as listed below.

- 2023 Opening Year = 97 Residential Units (Blocks A & B)
- 2028+ Years – Full Development = 350 Residential Units + Amenity Building

6.5.3 A summary of the adopted trip rates and forecast traffic generation of the proposed development is provided in **Table 6.12** overleaf.

Period	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)		
Vehicle Movement	**Arr**	**Dep**	**Total**	**Arr**	**Dep**	**Total**
Original Trip Rates	0.056	0.205	0.261	0.187	0.086	0.273
Adjusted Trip Rates	0.034	0.125	0.159	0.114	0.052	0.166

Table 6.12: Proposed Residential Development Vehicle Trip Rates (Per Unit)

6.5.4 Based on the above trip rates, potential peak hour traffic generation is calculated, and the predicted peak hour AM and PM traffic generated by the proposed development are presented in **Table 6.13** and **Table 6.14** below. The tables below outline the potential peak hour vehicle trips for the horizon years, that have been calculated based on the proposed development schedule.

Land Use	Quantity/GFA	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		Arr	Dep	Total	Arr	Dep	Total
Apartments	Phase 1: 97 units	3	12	15	11	5	16
Total		**3**	**12**	**15**	**11**	**5**	**16**

Table 6.13: Predicted Vehicle Trip Generation (2022 Openning Year)

Land Use	Quantity/GFA	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		Arr	Dep	Total	Arr	Dep	Total
Apartments	350	12	44	56	40	18	58
Total		**12**	**43**	**55**	**39**	**18**	**57**

Table 6.14: Predicted Vehicle Trip Generation (2028+ Years)

6.5.5 The trip generation exercise reveals that the proposed development within 2028+ Years has the potential to generate total 55 two-way vehicle trips during AM peak hour and 57 two-way vehicle trips during PM peak hour period.

6.6 TRIP DISTRIBUTION & ASSIGNMENT

6.6.1 Both the committed and proposed residential developments vehicle trips have been assigned to the network based on the internal parking configuration within the development site. For the proposed development, it is assumed that 75% of the traffic would enter and exit the site via the Santry Avenue junction and the remaining 25% traffic will enter and exit via the permitted Swords Road junction

(Left In/Left Out). Traffic entry and exit via Santry Avenue and Swords Road Accesses are illustrated in the **Tables 6.15** and **6.16** below.

AM PEAK (08:00-09:00)			PM PEAK (17:00-18:00)		
IN	OUT	Total	IN	OUT	Total
9	32	41	29	13	43

Table 6.15: Predicted Traffic Entry/ Exit Via Santry Avenue Access (Vehicles)

AM PEAK (08:00-09:00)			PM PEAK (17:00-18:00)		
IN	OUT	Total	IN	OUT	Total
3	11	14	10	4	14

Table 6.16: Predicted Traffic Entry/ Exit Via Swords Road Access (Vehicles)

7.0 NETWORK IMPACT ANALYSIS

7.1 ASSESSMENT SCOPE

7.1.1 Two different traffic scenarios have been assessed within this TTA, namely (a) the 'Base' (Do Nothing) traffic characteristics and (b) the 'Post Development' (Do Something) traffic characteristics.

7.1.2 The proposed development traffic flows have then been added to the network's Adjusted 'Base' (Base + Committed Development) traffic flows to establish the new 'Post' Development Do Something traffic flows. Base Flows for the future design years were derived based on the projection detailed in the Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections published by Transport Infrastructure Ireland (TII).

7.1.3 In summary the following network scenarios are considered.

Do Nothing

- A1 – 2023 Base Flows + Committed Development
- A2 – 2028 Base Flows + Committed Development
- A3 – 2038 Base Flows + Committed Development

Do Something

- B1 – 2023 Do Nothing (A1) + Proposed Development Flows
- B2 – 2028 Do Nothing (A2) + Proposed Development Flows
- B3 – 2038 Do Nothing (A2) + Proposed Development Flows

Assessment Periods

7.1.4 The weekday AM and PM peak hour flows have been identified in traffic survey as occurring between 08:00-09:00 and 16:00-17:00 respectively. These peak hour periods form the basis of the network assessments.

Network Vehicle Flows

7.1.5 The following Figures as included in **Appendix B** present the vehicle flows across the local road network for each of the adopted development assessment scenarios:

- Figure 8 – 2023 Do Nothing (A1)
- Figure 10 – 2028 Do Nothing (A2)
- Figure 12 – 2038 Do Nothing (A3)
- Figure 9 – 2023 Do Something (B1)
- Figure 11 – 2028 Do Something (B2)
- Figure 3 – 2038 Do Something (B3)

7.2 NETWORK IMPACT

7.2.1 The Institute of Highways and Transportation document 'Guidelines for Traffic Impact Assessments' states that the impact of a proposed development upon the local road network is considered material when the level of traffic it generates surpasses 10% and 5% on normal and congested networks respectively. When such levels of impact are generated, a more detailed assessment should be undertaken to ascertain the specific impact upon the network's operational performance. These same thresholds are reproduced in the TII document entitled Traffic and Transport Assessment Guidelines (2014).

7.2.2 In accordance with the IHT and NRA guidelines, assessments have been undertaken to establish the potential level of impact upon the key junctions of the local road network. To enable this calculation to be undertaken, the analysis took account of the following traffic scenarios:

- 2023 Opening Year (Do Nothing & Do Something);
- 2028 Future Design Year Scenario (Do Nothing & Do Something); and
- 2038 Future Design Year Scenario (Do Nothing & Do Something).

7.2.3 **Table 6.1** details the percentage impact of the relevant key junctions (illustrated in **Figure 7.1**) for the 2023, 2028 and 2038 design years are the following:

- **Junction 1** – Swords Road / Santry Avenue
- **Junction 2** – Site Access 1 / Santry Avenue
- **Junction 3** – Site Access 2 / Swords Road

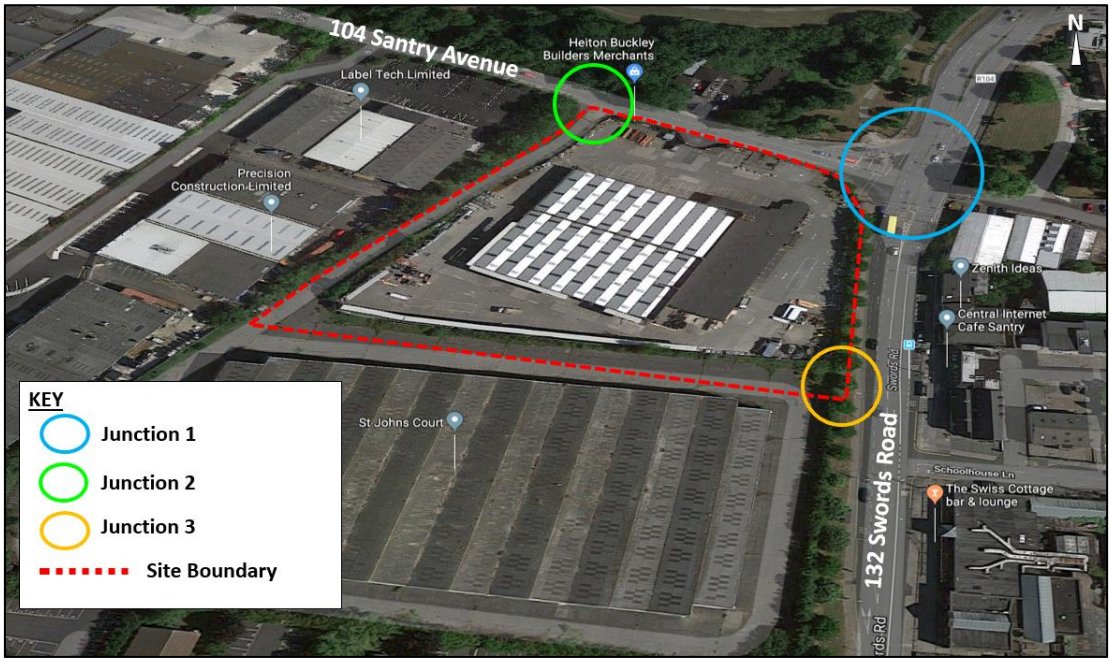


Figure 7.1: Junctions included in Analysis

Ref	Junction	Period	Opening Year 2023	Design Year 2028	Design Year 2038
1	Swords Road / Santry Avenue	AM Peak	0.2%	0.8%	0.7%
		PM Peak	0.3%	0.9%	0.8%
2	Site Access 1/Santry Avenue	AM Peak	1%	3.5%	3.3%
		PM Peak	1%	3.4%	3.2%
3	Site Access 2/Swords Road	AM Peak	0.5%	1.1%	1%
		PM Peak	0.3%	0.9%	0.9%

Table 7.1: Network Impact Assessment

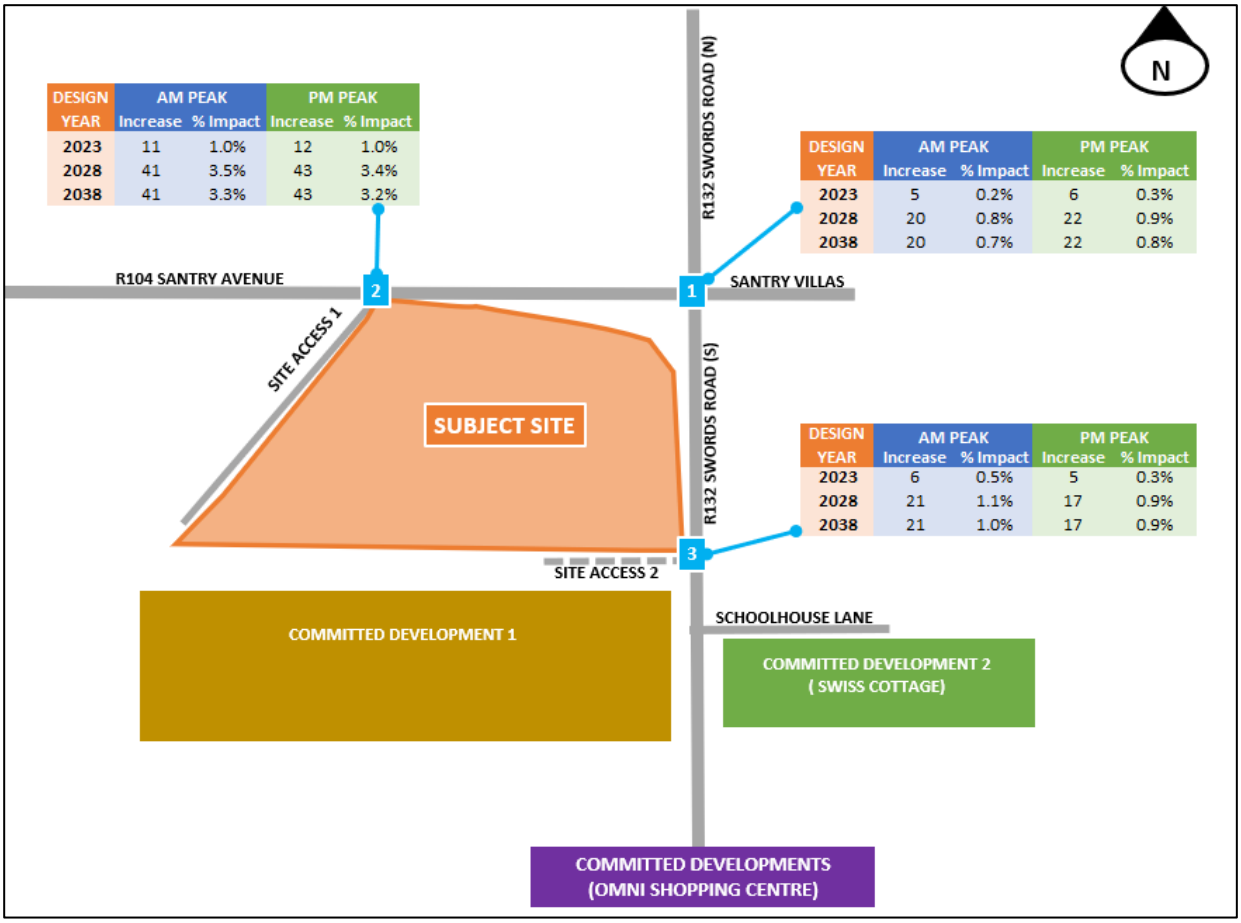
7.2.4 In **Table 7.2** and **Table 7.3** below, the predicted impact has been categorised for the 2023 Opening Year, 2028 Interim Year and 2038 Future Design Year. The additional vehicle and percentage impacts are illustrated in **Figure 7.2** overleaf.

Junction - Nature of Impact (Additional Vehicular Traffic on key Junctions)		Year	Impact Scale	Impact Level
1	Swords Road / Santry Avenue	2023	0.2%	Insignificant
		2028	0.8%	Insignificant
		2038	0.7%	Insignificant
2	Site Access 1/Santry Avenue	2023	1.0%	Insignificant
		2028	3.5%	Insignificant
		2038	3.3%	Insignificant
3	Site Access 2/Swords Road	2023	0.5%	Insignificant
		2028	1.1%	Insignificant
		2038	1.0%	Insignificant

Table 7.2: Network Impact Categorization AM Peak Hour

Junction - Nature of Impact (Additional Vehicular Traffic on key Junctions)		Year	Impact Scale	Impact Level
1	Swords Road / Santry Avenue	2023	0.3%	Insignificant
		2028	0.9%	Insignificant
		2038	0.8%	Insignificant
2	Site Access/Santry Avenue	2023	1.1%	Insignificant
		2028	3.4%	Insignificant
		2038	3.2%	Insignificant
3	Site Access/Swords Road	2023	0.3%	Insignificant
		2028	0.9%	Insignificant
		2038	0.9%	Insignificant

Table 7.3: Network Impact Categorization PM Peak Hour



DESIGN YEAR	AM PEAK Increase	AM PEAK % Impact	PM PEAK Increase	PM PEAK % Impact
2023	11	1.0%	12	1.0%
2028	41	3.5%	43	3.4%
2038	41	3.3%	43	3.2%

DESIGN YEAR	AM PEAK Increase	AM PEAK % Impact	PM PEAK Increase	PM PEAK % Impact
2023	5	0.2%	6	0.3%
2028	20	0.8%	22	0.9%
2038	20	0.7%	22	0.8%

DESIGN YEAR	AM PEAK Increase	AM PEAK % Impact	PM PEAK Increase	PM PEAK % Impact
2023	6	0.5%	5	0.3%
2028	21	1.1%	17	0.9%
2038	21	1.0%	17	0.9%

Figure 7.2: Additional Vehicle and Percentage Impact

7.2.5 The impact predicted for all the three junctions within all design years is considered to be insignificant and well below the 5% threshold for necessitating further more detailed analysis. However, for the purpose of robust analysis both site access junctions will be subject to further assessment in order to determine pre-development and post-development performance of the junctions using the modelling software Junction 9.0 PICADY respectively.

7.3 NETWORK ANALYSIS

Introduction

7.3.1 The operational assessment of the local road network has been undertaken using the Transport Research Laboratory (TRL) computer package Junction 9 PICADY for the priority junctions.

7.3.2 For Priority junctions, a Ratio of Flow to Capacity (RFC) of greater than 85% (0.85) would indicate a junction to be approaching capacity, as operation above this RFC value is poor and deteriorates quickly.

7.3.3 A 90-minute weekday AM and PM period has been simulated, from 07:45 to 9:15 and 16:45 to 18:15. Traffic flows were entered using an Origin-Destination table for the peak hours.

7.3.4 In order to analyse and assess the impact of the proposed development on the surrounding road network, network, traffic the junctions were created and analysed for the scheme's following Opening and Future Design Years:

- 2022 Opening Year
- 2028 Future Design Year (Opening Year +5 years)
- 2038 Future Design Year (Opening Year +15 years)

7.3.5 As introduced previously, the following junction has been considered for further analysis: -

- **Junction 2** – Site Access 1/Santry Avenue
- **Junction 3** – Site Access 2/Swords Road

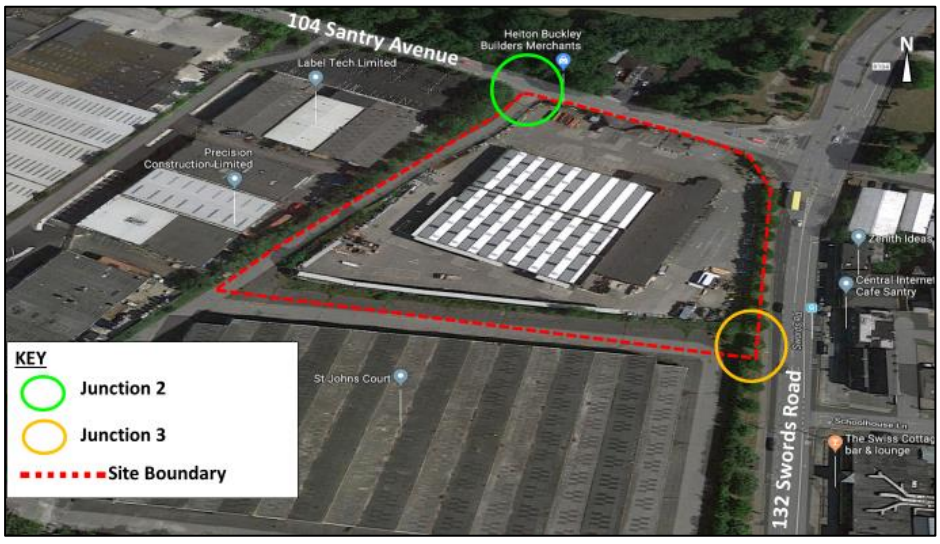


Figure 7.3: Junctions Included Detailed Analysis

7.4 SITE ACCESS 1 (JUNCTION 2: Site Access /Santry Avenue)

7.4.1 The results of the operational assessment of this three-arm priority controlled junction during the weekday morning and evening peaks are summarised in Tables 7.4 to 7.9 below. The arms were labelled as follows within the PICADY model:

- Arm A: Santry Avenue (East)
- Arm B: Site Access
- Arm C: Santry Avenue (West)

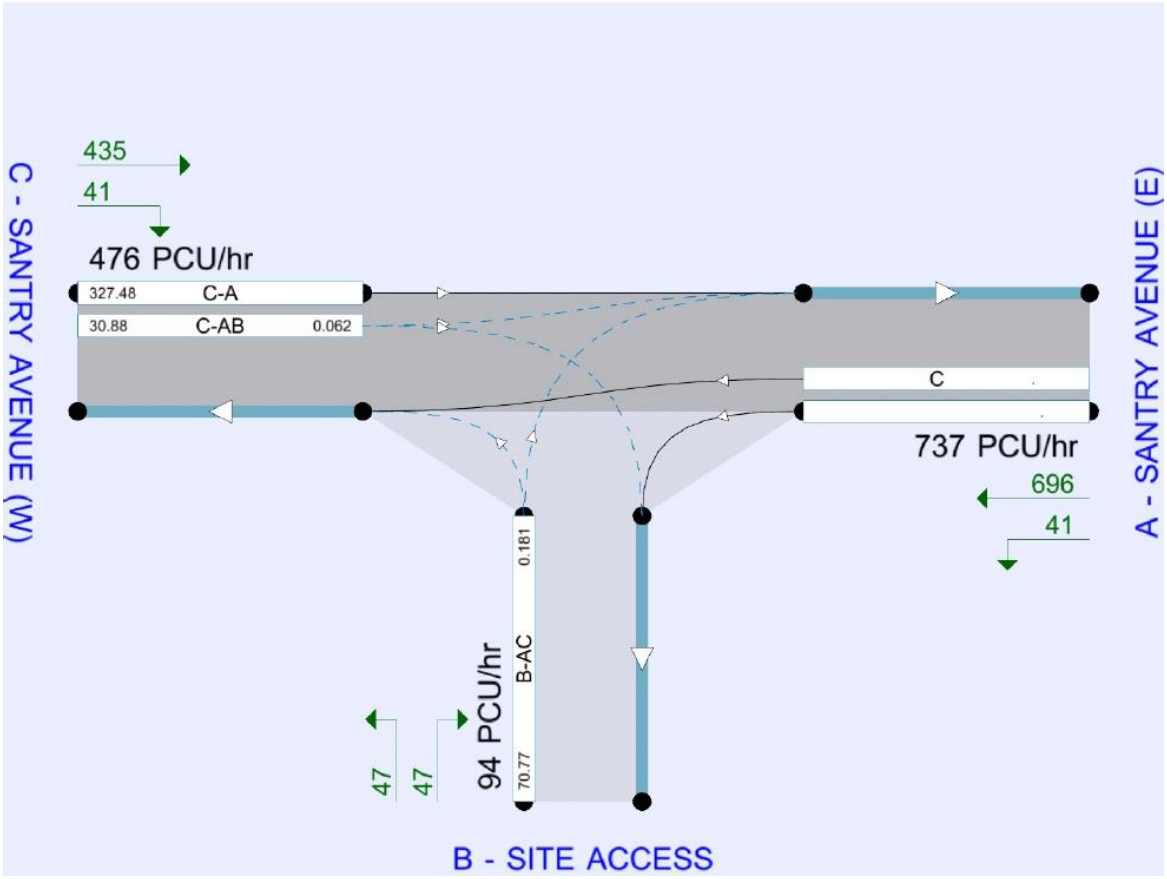


Figure 7.4: Site Access 1 Junction Diagram

2023 AM Peak

7.4.2 The PICADY results (Table 7.4) indicate that the Site Access / Santry Avenue junction will operate within capacity for the 2023 "Do Nothing" AM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.16 and a corresponding queue of 0.2 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2023 "Do Something" AM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.26 and a corresponding queue of 0.4 vehicles being recorded. A copy of the PICADY output files can be found in **Appendix D**.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.16	0.2	13.59
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.10	0.1	9.45
Do Something (B1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.26	0.4	15.56
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.11	0.1	9.57

Table 7.4: 2023 PICADY Results (AM Peak)

2023 PM Peak

7.4.3 The PICADY results (Table 7.5) indicate that the Site Access / Santry Avenue junction will operate within capacity for the 2023 "Do Nothing" PM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.26 and a corresponding queue of 0.4 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2023 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.30 and a corresponding queue of 0.5 vehicles being recorded.

7.4.4 This "Do Something" result is comparable to the "Do Nothing" scenario with the maximum RFC increasing by only 0.04. A copy of the PICADY output files can be found in **Appendix D**.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.26	0.4	15.55
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.10	0.1	9.46
Do Something (B1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.30	0.5	16.49
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.10	0.1	9.53

Table 7.5: 2023 PICADY Results (PM Peak)

2028 AM Peak

7.4.5 The PICADY results (Table 7.6) indicate that the Site Access / Santry Avenue junction will operate within capacity for the 2023 "Do Nothing" AM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.17 and a corresponding queue of 0.2 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2028 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.28 and a corresponding queue of 0.4 vehicles being recorded.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.17	0.2	14.48
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.10	0.1	9.75
Do Something (B1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.28	0.4	16.74
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.11	0.1	9.88

Table 7.6: 2028 PICADY Results (AM Peak)

2028 PM Peak

7.4.6 The PICADY results (Table 7.7) indicate that the Site Access / Santry Avenue junction will operate within capacity for the 2028 "Do Nothing" PM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.27 and a corresponding queue of 0.4 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2028 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.32 and a corresponding queue of 0.5 vehicles being recorded.

7.4.7 This "Do Something" result is comparable to the "Do Nothing" scenario with the maximum RFC increasing by only 0.05. A copy of the PICADY output files can be found in **Appendix D**.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.27	0.4	16.33
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.06	0.1	9.36
Do Something (B1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.32	0.5	17.82
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.10	0.1	9.85

Table 7.7: 2028 PICADY Results (PM Peak)

2038 AM Peak

7.4.8 The PICADY results (Table 7.8) indicate that the Site Access / Santry Avenue junction will operate within capacity for the 2038 "Do Nothing" AM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.18 and a corresponding queue of 0.2 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2038 "Do Something" AM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.29 and a corresponding queue of 0.4 vehicles being recorded.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.18	0.2	15.47
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.11	0.1	10.06
Do Something (B1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.29	0.4	18.08
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.12	0.1	10.20

Table 7.8: 2038 PICADY Results (AM Peak)

2038 PM Peak

7.4.9 The PICADY results (Table 7.9) indicate that the Site Access / Santry Road junction will operate within capacity for the 2038 "Do Nothing" PM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.29 and a corresponding queue of 0.4 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2038 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.34 and a corresponding queue of 0.5 vehicles being recorded.

7.4.10 This "Do Something" result is comparable to the "Do Nothing" scenario with the maximum RFC increasing by only 0.04. A copy of the PICADY output files can be found in Appendix D.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.29	0.4	17.69
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.07	0.1	9.68
Do Something (B1)	B-AC -Site Access to Santry Ave.(E) & Santry Ave.(W)	0.34	0.5	19.38
	C-AB – Santry Ave. (W) to Site Access & Santry Ave.(E)	0.10	0.1	10.18

Table 7.9: 2038 PICADY Results (PM Peak)

7.5 SITE ACCESS 2 (JUNCTION 3: Site Access /Swords Road)

7.5.1 The results of the operational assessment of this three-arm priority controlled junction during the weekday morning and evening peaks are summarised in Tables 7.10 to 7.15 below. The arms were labelled as follows within the PICADY model:

- Arm A: Swords Road (S)
- Arm B: Site Access
- Arm C: Swords Road (N)

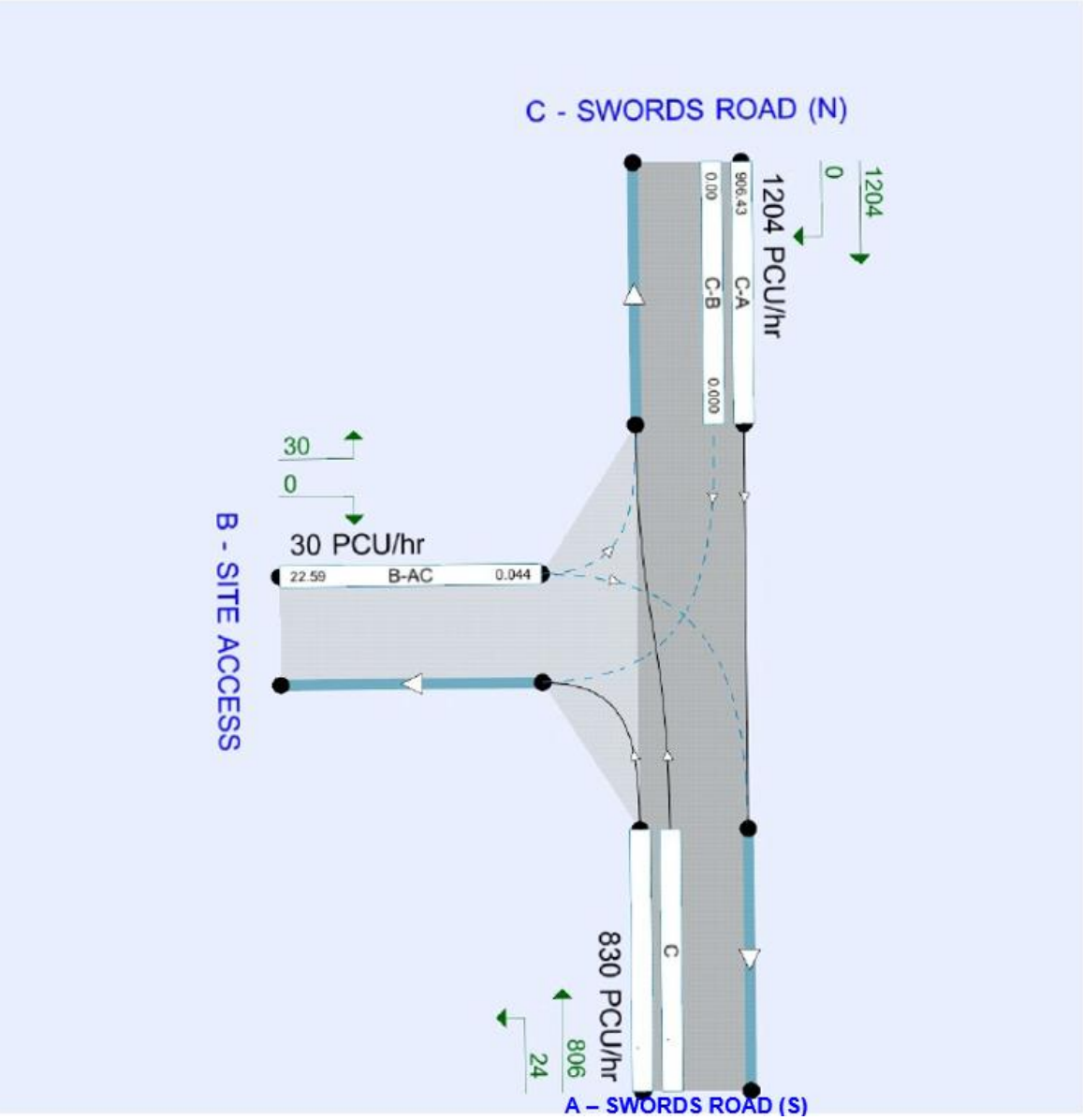


Figure 7.5: Access 2 Junction Diagram

2023 AM Peak

7.5.2 The PICADY results (Table 7.10) indicate that the Site Access / Swords Rd junction will operate within capacity for the 2023 "Do Nothing" AM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.03 and a corresponding queue of 0.0 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2023 "Do Something" AM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.06 and a corresponding queue of 0.1 vehicles being recorded. A copy of the PICADY output files can be found in **Appendix D**.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Swords Road (N)	0.03	0.0	7.69
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0
Do Something (B1)	B-AC -Site Access to Swords Road (N)	0.06	0.1	7.88
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0

Table 7.10: 2023 PICADY Results (AM Peak)

2023 PM Peak

7.5.3 The PICADY results (Table 7.11) indicate that the Site Access / Swords Rd junction will operate within capacity for the 2023 "Do Nothing" PM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.06 and a corresponding queue of 0.1 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2023 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.07 and a corresponding queue of 0.1 vehicles being recorded.

7.5.4 This "Do Something" result is comparable to the "Do Nothing" scenario with the maximum RFC increasing by only 0.01. A copy of the PICADY output files can be found in **Appendix D**.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Swords Road (N)	0.06	0.1	7.99
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0
Do Something (B1)	B-AC -Site Access to Swords Road (N)	0.07	0.1	8.09
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0

Table 7.11: 2023 PICADY Results (PM Peak)

2028 AM Peak

7.5.5 The PICADY results (Table 7.12) indicate that the Site Access / Swords Rd junction will operate within capacity for the 2028 "Do Nothing" AM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.03 and a corresponding queue of 0.0 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2028 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.06 and a corresponding queue of 0.1 vehicles being recorded.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Swords Road (N)	0.03	0.0	7.82
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0
Do Something (B1)	B-AC -Site Access to Swords Road (N)	0.06	0.1	8.01
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0

Table 7.12: 2028 PICADY Results (AM Peak)

2028 PM Peak

7.5.6 The PICADY results (Table 7.13) indicate that the Site Access / Swords Rd junction will operate within capacity for the 2028 "Do Nothing" PM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.06 and a corresponding queue of 0.1 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2028 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.07 and a corresponding queue of 0.1 vehicles being recorded.

7.5.7 This "Do Something" result is comparable to the "Do Nothing" scenario with the maximum RFC increasing by only 0.01. A copy of the PICADY output files can be found in **Appendix D**.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Swords Road (N)	0.06	0.1	8.14
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0
Do Something (B1)	B-AC -Site Access to Swords Road (N)	0.07	0.1	8.24
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0

Table 7.13: 2028 PICADY Results (PM Peak)

2038 AM Peak

7.5.8 The PICADY results (Table 7.14) indicate that the Site Access / Swords Rd junction will operate within capacity for the 2038 "Do Nothing" AM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.03 and a corresponding queue of 0.0 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2038 "Do Something" AM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.06 and a corresponding queue of 0.1 vehicles being recorded.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Swords Road (N)	0.03	0.0	7.95
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0
Do Something (B1)	B-AC -Site Access to Swords Road (N)	0.06	0.1	8.15
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0

Table 7.14: 2038 PICADY Results (AM Peak)

2038 PM Peak

7.5.9 The PICADY results (Table 7.15) indicate that the Site Access / Swords Rd junction will operate within capacity for the 2038 "Do Nothing" PM peak hour with a maximum Ratio of Flow to Capacity (RFC) value of 0.06 and a corresponding queue of 0.1 vehicles recorded. With the inclusion of the proposed development and the committed development, the 2038 "Do Something" PM peak hour analysis reveals that the junction will continue to be operating within capacity with a maximum Ratio of Flow to Capacity (RFC) value of 0.07 and a corresponding queue of 0.1 vehicles being recorded.

7.5.10 This "Do Something" result is comparable to the "Do Nothing" scenario with the maximum RFC increasing by only 0.01. A copy of the PICADY output files can be found in Appendix D.

Scenario	Arm	RFC	Queue (veh)	Delay (veh.min/seg)
Do Nothing (A1)	B-AC -Site Access to Swords Road (N)	0.06	0.1	8.29
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0
Do Something (B1)	B-AC -Site Access to Swords Road (N)	0.07	0.1	8.40
	C-B – Sword Road (N) to Site Access	0.0	0.0	0.0

Table 7.15: 2038 PICADY Results (PM Peak)

8.0 INITIATIVES TO PROMOTE SUSTAINABLE TRAVEL

8.1 OVERVIEW

8.1.1 A package of integrated mitigation measures has been identified to off-set the additional local demand that the proposed Santry Avenue mixed use development could potentially generate as a result of the forecast increase in vehicle movements by residents, commuters and visitors. The strategy includes specific measures for both the construction and operational stages of the proposed development.

8.2 CONSTRUCTION STAGE

8.2.1 The Construction Environmental Management Plan (which is a standalone report and will be included in the planning documentation) and the associated Construction Traffic Management Plan (CTMP) in addition to the application's accompanying Construction and Waste Management Plan will incorporate a range of integrated control measures and associated management initiatives with the objective of mitigating the impact of the proposed development's on-site construction activities.

8.2.2 The CTMP will be prepared prior to the commencement of construction work on site. This plan will be prepared in consultation with DCC and submitted for approval in order to agree on traffic management and monitoring measures (in advance of works commencing) some of which are outlined below:

- All works on site will be undertaken during hours of the day in accordance with DCC requirements.
- During the pre-construction phase, the site will be securely fenced off from adjacent properties, public footpaths and roads.
- The surrounding road network will be signed to define the access and egress routes for the development including dedicated 'haul' routes to/from the development site.
- The traffic generated by the construction phase of the development will be strictly controlled in order to minimise the impact of this traffic on the surrounding road network and local properties. All HGV trips could

potentially be restricted from traveling to / from the development during the local road network's peak hours.

- All road works will be adequately signposted and enclosed to ensure the safety of all road users and construction personnel.
- All employees and visitors' vehicle parking demands will be accommodated either on-site or at a predetermined off-site location. On-street parking of construction vehicles and construction personnel vehicles will be prohibited.
- A programme of street cleaning across the local street and identified 'haul' routes' will be implemented.
- A Construction Mobility Management Plan will be developed by the appointed contractor to encourage all construction personnel to utilise the vast range of sustainable travel options available when travelling to/from the subject Santry Avenue site.

8.3 OPERATIONAL STAGE

8.3.1 With the objective of mitigating the potential impact of the proposed Murphystown Way development as predicted in Section 6 and 7 of this report during its operational stage, and with the objective of promoting sustainable travel for all residents, workers, and visitors to the development; the following initiatives have been identified and subsequently form an integral part of the subject development proposals.

- Strategic Employment Centres – The location of the subject development on the Swords-City Centre corridor provides the unique ability for many of Dublin's strategic employment zones to achieve many of their sustainability obligations particularity in regard to accessibility and sustainable modes of travel. Beyond the obvious ease of access to Dublin City Centre provided by bus services, the proposed development benefits from being conveniently located to gain access to a number of strategic employment areas. Accordingly, a specific focus of the development's mobility strategy will be encouraging the uptake of sustainable travel options for the development's residents' 'commuter' trips to / from the local employment centres:

- Omni Shopping Centre is within approximate 500m of the subject site.
- Santry Business Park
- Airways Industrial Estate approximately 1km northeast of the subject site can be conveniently accessed by walking and cycling from the proposed development.
- Collinstown Business Park approximately 2km north of the subject site can be conveniently accessed by walking (25 minutes) and cycling (6 minutes) from the proposed development.
- Gulliver Retail Park approximately 1.6km northwest of the subject site can be conveniently accessed by walking (19 minutes) and cycling (7 minutes) from the proposed development.
- Clonshaugh Business & Technology Park – Easily accessible by Walking (29 minute walking) and by bicycle (10 minute cycle).

- Management – A Mobility Management (MMP) is to be rolled out with the aim of guiding the delivery and management of a range of coordinated initiatives by the scheme promotor. The MMP ultimately seeks to encourage sustainable travel practices for all journeys to and from the proposed development site. It is proposed that specific MMP's related to residential land use will be developed under the framework of a 'parent' MMP for the entire site. The associated MMPs will be developed in partnership with DCC to specifically consider the opportunities of shaping all journeys and promoting sustainable transport habits at the proposed mixed use development.
- Management – A Car Park Management Strategy. The availability of parking spaces is a key determinant of mode choice and car usage. With the objective of minimizing travel by car and encouraging the use of sustainable modes instead, it is proposed to limit the car parking provision and promote a 'car-lite' scheme. This is considered an appropriate approach considering the site's excellent accessibility characteristics (e.g. walking, cycling, bus and train opportunities) to places of work, education and essential services. This 'car lite' approach will help to reduce car dependency in Dublin, reduce traffic congestion

and pollution levels, improve the quality of the environment and help tackle climate change in addition to encouraging sustainable travel.

- Service – The development will provide of 4 no. dedicated car share parking bays for GoCar vehicles on the surface level. The aim will be to reduce the need to own a private motor car thereby contributing to reducing the overall number of vehicle trips generated by the proposed development.
- Facilities - In addition to facilitating and encouraging bicycle use, increasing the number of cycle parking provision on-site is considered best practice in situations such as when reducing car parking spaces. A total of 777 no. cycle spaces with 719 no. within basement and 58 short term / visitor spaces on surface level. The cycle parking provision also includes 9 no. Cargo Bike parking spaces. Bike sharing schemes could be implemented within the vicinity of the Santry Avenue development which could further encourage sustainable modes of travel and reduce the number of short car journeys around Santry.
- Infrastructure (by others) – Planning infrastructure investment that will further enhance the sites sustainable accessibility credentials include;
    - The proposed GDA cycling network plan will also encourage a greater uptake in walking and cycling amongst residents, staff and visitors and
    - BusConnects aims to deliver Swords-Dublin City Centre corridor which is adjacent the subject site. The BusConnects Routes A2/A4, 82, N8 in will run adjacent to the subject development site, which will have a frequency of every 10-15 minutes. Spine Route E also will run approximately 1.2 km west of the site and is accessible by walking or the N8 route.
    - Metrolink which is proposed urban high capacity rail service connecting Swords, Dublin Airport, City Centre and Charlemont. The proposed Metrolink route's Northwood and Ballymun interchanges are located within approximately 1.6km west of the subject site

9.0 STAGE 2 SHD APPLICATION – PLANNING AUTHORITY OPINIONS

9.1 OVERVIEW

9.1.1 This section provides responses to the items raised by the DCC Transportation Department during Stage 1 of this SHD application. The items raised were in Notice of Pre-Application Consultation Opinion and are discussed in detail in the following sections.

9.2 DUBLIN CITY COUNCIL TRANSPORTATION OBSERVATIONS

9.2.1 Within the Transportation Planning Divisions pre-application consultation note the officers raise a number of key queries including the following;

DCC Observation 1

"There are approximately 40 no. surface perpendicular car parking spaces proposed along the central spine access road between the proposed development and the permitted development to the south. Consideration should be given to removing some of these spaces and replacing them with parallel spaces."

9.2.2 In response to the above query the number of perpendicular car parking spaces along the central east-west street has been reduced.

DCC Observation 2

"the car parking spaces that are located at the junction with the Swords Road, directly opposite the basement car parking of the permitted development, are too close to this junction/access and would be hazardous to road users. These should be removed and/or relocated. A Stage 1 Road Safety Audit should also be provided."

9.2.3 The two subject spaces have been reassigned to set-down / pick-up only spaces which will reduce the times / duration that a vehicle is located within these specific bays. As per the above requested these bays and the entire development have been subject to an independent Stage 1 Road Safety Audit which is reported in a separate dedicated report which accompanies the application.

DCC Observation 3

"There are concerns that the access road would become a 'rat run' for users from Santry Avenue through to the Swords Road. The pedestrian link/green spine that runs through the public open spaces of both developments and creates a permeable route to Santry Park highlights the need to provide a safer, traffic-calmed route and to ensure pedestrian priority along this route."

9.2.4 Whilst the layout of the site access junction on Swords Rd (permitting only left-in and left-out vehicle movements) will actively minimise the potential for rat-running from Santry Avenue to Swords Road the following two new design measures have been integrated into the scheme proposals to further reduce the occurrence of any rat-running through the site;

- The length of the internal vehicle through route has been increased by relocating the internal north-south street further westwards (to the west of Block G) and parallel with the site's western boundary. This increase in length will reduce the potential time savings that a vehicle driver could have benefited from when compared to the previous Stage 1 preplanning layout.
- Additional traffic calming measures have been introduced along the internal north-south street to reduce internal vehicle speeds and subsequently increase the time it will take to travel through the site.

DCC Observation 4

Detail of the pedestrian link are required. Provision should be made to facilitate a pedestrian and cycling link through this area. Clarity around the design of this crossing is required; if it is proposed to provide a raised table, or if a signalised pedestrian crossing etc would be provided.

9.2.5 The internal north-south green corridor has been designed to accommodate pedestrians only (e.g. cyclists will have to walk their bicycles) a there is no onwards bicycle connections on Santry Avenue. It is envisioned north-south cyclists along Swords Road will be facilitated by the NTA's emerging BusConnects proposals along the adjoining corridor.

9.2.6 In reference to the scheme architects ***Site Layout – Taking in Charge Map*** (D1809.P04) the internal streets and footpaths including the subject north-south pedestrian connection is to remain within private ownership. The raised flat top flat

at the intersection of the internal east-west street and the subject north-south pedestrian link is intended to operate as a 'courtesy' crossing facility. Nevertheless, should the local roads authority believe a formal crossing (e.g. zebra crossing or similar) would be beneficial at this crossing we would invite the implementation of a specific planning condition to address same.

DCC Observation 5

"155 no. car parking spaces are proposed at basement level with 60no. surface spaces. This equates to 0.6 spaces per unit. It is unclear if car parking is to be provided for the commercial element of the development and it is noted in the cover letter that a ratio of 0.4 spaces per unit is proposed, therefore the assumption is made that the 60 no. spaces are for the commercial element. Clarity around this is required."

9.2.7 DBFL can confirm that the reference in the covering letter to a ratio of 0.4 spaces per unit is incorrect. In reference to the Parking Strategy detailed in Chapter 5 of this report its can be confirmed that the modest element on non-residential land uses (797.4 m2) proposed will **NOT** be assigned any of the on-site car parking spaces. Accordingly, all on-site car parking bays, with the exception of the 4 No Car Share (GoCar) being made available to the proposed residential uses equating to a ratio of approximately 0.6 spaces per unit.

DCC Observation 6

"While a reduced quantum of car parking provision may be acceptable to this division, a proactive travel planning approach is required. A car parking strategy and management plan should be submitted and should outline the rationale for the under provision of car parking spaces and should be informed by an analysis of Census data in relation to the car ownership levels by apartment occupiers in this electoral area and mode split. The strategy should also indicate how car parking will be assigned and managed in the long term and should clearly demonstrate a commitment by the Management Company to continual management of car parking within the development. Parking spaces cannot be assigned to individual apartment units; spaces should instead be allocated and/or leased to residents on the basis of availability and need, by means of a permit/lottery system, in order to optimise the use of parking spaces."

9.2.8 The Parking Strategy detailed in Chapter 5 of this report addresses each of the requirements raised within the above observation.

DCC Observation 7

"Alongside the Car Parking Management Strategy, a Mobility Management/Travel Plan should be prepared and submitted for the proposed development. The travel plan should address the mobility requirements of future residents and should promote the use of public transport, cycling and walking."

9.2.9 A Mobility Management Plan has been compiled for the scheme proposals and is detailed in a separate dedicated report which accompanies the subject SHD planning application.

DCC Observation 8

"The car parking strategy should also address how the car parking will be managed in the context of the proposed commercial/retail uses."

9.2.10 See response to DCC Observation 5 above for clarification.

DCC Observation 9

"It appears that 352no. bicycle parking spaces will be provided for the residential units which is in line with the Development Plan standards but falls short of the Apartment Guidelines 2018 standards. If the applicant is proposing a reduced quantum of car parking based on the Apartment Guidelines provision, it cannot use the Development Plan standards in relation to bicycle parking standards. While it is noted that the quantum proposed in accordance with the Apartment Guidelines may be considered excessive in some instances, the applicant should seek to provide a balance between the two guidance documents."

9.2.11 In direct response to the above observation DBFL can confirm that the scheme proposals have been revisited in regard to Bicycle parking with the level of provision updated in the current updated redevelopment proposals. In reference to Section 4.4 and 5.4 of this report the updated design now accommodates a total of 777 bicycle parking spaces and 9 no. Cargo Bikes parking spaces which complies fully with the New Apartment Guidelines (Dec 2020).

DCC Observation 10

"Details of the types of bicycle parking to be provided should be indicated e.g. Sheffield stands, two tier racks etc."

9.2.12 DBFL can confirm that the architects Davey-Smith and landscape architects have specified the following bike parking facilities;

- Surface located bicycle parking – Standard *'Sheffield'* stands such as the *Stainless Steel Sheffield Cycle Stand - Sub-Surface* by Pittman as per details available at https://www.pittman.ie/stainless-steel-sheffield-cycle-stand-sub-surface.html
- Basement located two tier bicycle parking - *Velo-Up Regular Two-Tier Bike Rack* system by Pittman as per details in Appendix E of this report and at https://www.pittman.ie/velo-up-regular-two-tier-bike-rack.html
- Basement located cargo bike parking – Either standard *'Sheffield'* stands or *Trombone Bicycle Stand 50mm* by Pittman as per details available at https://www.pittman.ie/trombone-bicycle-stand-50mm.html

DCC Observation 11

"Applicant should ensure that the latest Bus Connects proposals (March 2020) are not impinged upon by the development. This division can facilitate engagement with the NTA in relation to this prior to the submission of an application if required. Any drawings submitted should also overlay the Bus Connects proposal with the development in the interests of clarity."

9.2.13 In reference to NTA's latest Bus Connects proposals (November 2020 - https://busconnects.ie/media/2177/02-swords-to-city-centre-preferred-route-121120-fa-web.pdf) as reproduced in Figure 9.1 below it can be established that the NTA are not proposing to encroach into or require any part of the subject Chadwick's site to implement the proposed Swords to City Centre Core Bus Corridor 2 infrastructure works (reference Map 18 and Map 19 of NTA.

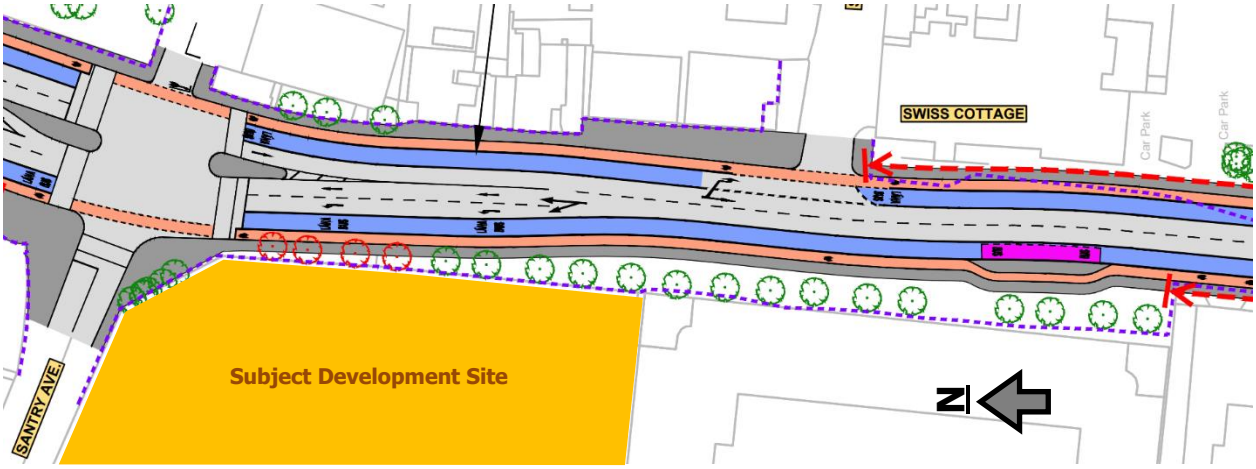


Figure 9.1 : Extract of Map 19 – NTA CBC No. 2 proposals along site frontage

9.2.14 The NTA's CBC proposals have been transferred onto the subject residential scheme layout as presented in the accompanying drawing 200060-X-90-X-DTM—

DR-DBFL-CE-1401. This exercise demonstrates that when the CBC infrastructure works are implemented the proposed residential development will not impinge upon the CBC works and likewise the CBC works will impinge into the subject SHD scheme. Accordingly, in the submitted SHD scheme drawings it has been demonstrated that the design integrates appropriately with both (i) the existing external roads layout (as demonstrated in DBFL drawing 200060-X-04-XDTM-DR-DBFL-CE-1301) prior to CBC works being implemented, and (ii) following the implementation of the NTA's CBC infrastructure enhancements (as demonstrated in DBFL drawing 200060-X-90-X-DTM-DR-DBFL-CE-1401).

DCC Observation 12

"The applicant should clarify which areas are proposed to be in taken in charge by DCC"

9.2.15 In reference to the scheme architects ***Site Layout – Taking in Charge Map*** (D1809.P04) drawing all internal streets and footpaths within the development are to remain within private ownership.

DCC Reference: ABSHDPAC0025/21

"A Road Safety Audit Stage 1 has been prepared and submitted which highlights a number of matters that are required to be addressed. Revised drawings should be submitted with the final application confirming the problems have been resolved. These are:

- *Problem 3.1: Arrangements at the left in, left out junction along Swords Rd into the site.*
- *Problem 3.7: The size of the corner radii at all junctions in the development*
- *Problem 3.8: Proposed Footpath along the R132 – Swords Road"*

9.2.16 DBFL can confirm that the designer responses to the above RSA items, as agreed with the auditors remain unchanged and are as follows:

- ***Problem 3.1: Arrangements at the left in, left out junction along Swords Rd into the site.***

				(Yes/No)
3.1	Yes	No	This junction has already received planning permission under Planning Ref.:2713/17 and is under construction. 'No Right Turn' signs can be facilitated within site boundary. The turn from Swords Road is under the control of the Local Authority and they will be made aware of the potential issue.	Yes
			This area is outside the site boundary	

- ***Problem 3.7: The size of the corner radii at all junctions in the development***

			stage.	
3.7	Yes	No	These radii are to accommodate larger vehicle (refuse/Fire Tender)	Yes

- ***Problem 3.8: Proposed Footpath along the R132 – Swords Road***

3.8	Yes	Yes	The recommendation will be incorporated during detailed design stage.	

9.3 AN BORD PLEANALA TRANSPORTATION OBSERVATIONS

9.3.1 A total of ten key observations were raised by ABP officers during the Stage 1 preplanning stage with the following (No. 9) considering the topic of traffic and transportation.

> *A detailed Construction Traffic Management Plan should be prepared, and a revised Traffic and Transport Assessment should be submitted which sets out the cumulative impact of both the committed development and the proposed development on each of the two proposed access points.*

9.3.2 In response to the above request a Construction Traffic Management Plan has been compiled and forms part of the planning documentation submitted to the planning authorities.

9.3.3 DBFL have revisited and updated the Traffic and Transport Assessment further to the above observation. As detailed in Chapter 7, the network impact analysis includes the predicted traffic generated by the subject proposed redevelopment and the following committed / emerging developments;

- Santry Place mixed use development (DCC Planning Ref 2737/19) as located immediately to the south of the subject development and as accessed via the same two site access junctions on Santry Avenue and Swords Road corridors.
- Santry Place mixed use development (DCC Planning Ref 2543/21) being amendment to the previously permitted DCC Planning Ref 2737/19
- Swiss Cottage residential redevelopment scheme on Swords Road (Ref. ABP 303358-19) and
- Various redevelopment proposals in Omni Shopping Centre including Planning Ref. 2876/21, 2075/21, 3811/20 and 3767/18.

9.3.4 The cumulative impact of the proposed development and the committed developments on the following three junctions (illustrated in **Figure 9.1**) are outlined in **Table 9.1** and illustrated in **Figure 9.2**.

- **Junction 1** – Swords Road / Santry Avenue
- **Junction 2** – Site Access 1 / Santry Avenue
- **Junction 3** – Site Access 2 / Swords Road

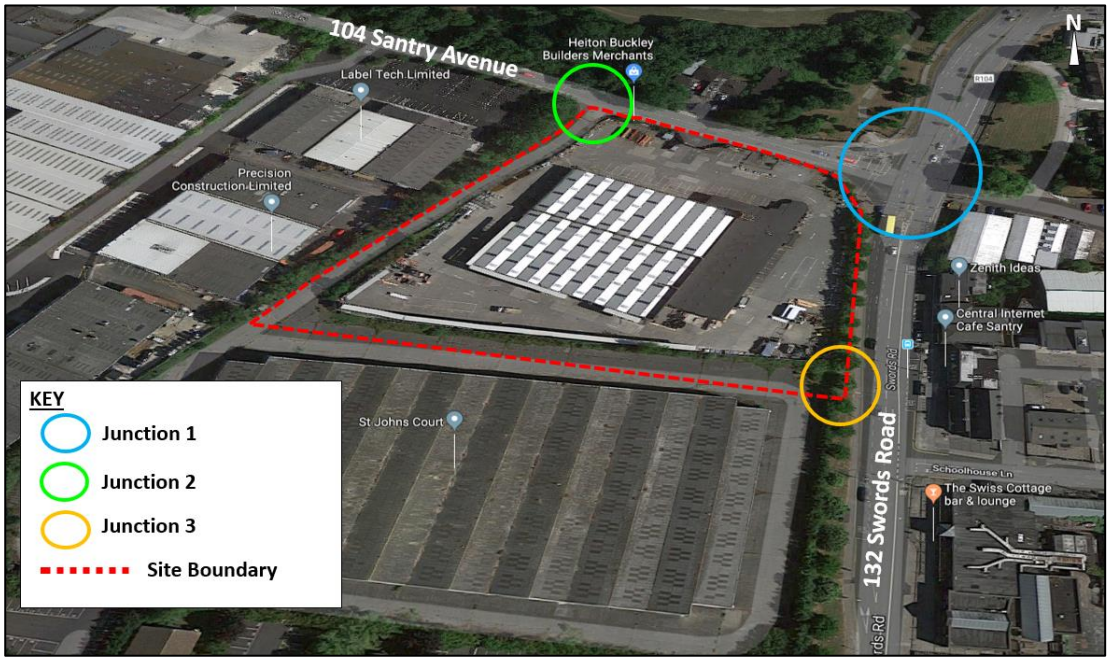


Figure 9.1: Junctions included in Analysis

Ref	Junction	Period	Opening Year 2023	Design Year 2028	Design Year 2038
1	Swords Road / Santry Avenue	AM Peak	0.2%	0.8%	0.7%
		PM Peak	0.3%	0.9%	0.8%
2	Site Access 1/Santry Avenue	AM Peak	1%	3.5%	3.3%
		PM Peak	1%	3.4%	3.2%
3	Site Access 2/Swords Road	AM Peak	0.5%	1.1%	1%
		PM Peak	0.3%	0.9%	0.9%

Table 9.1: Network Cumulative Impact

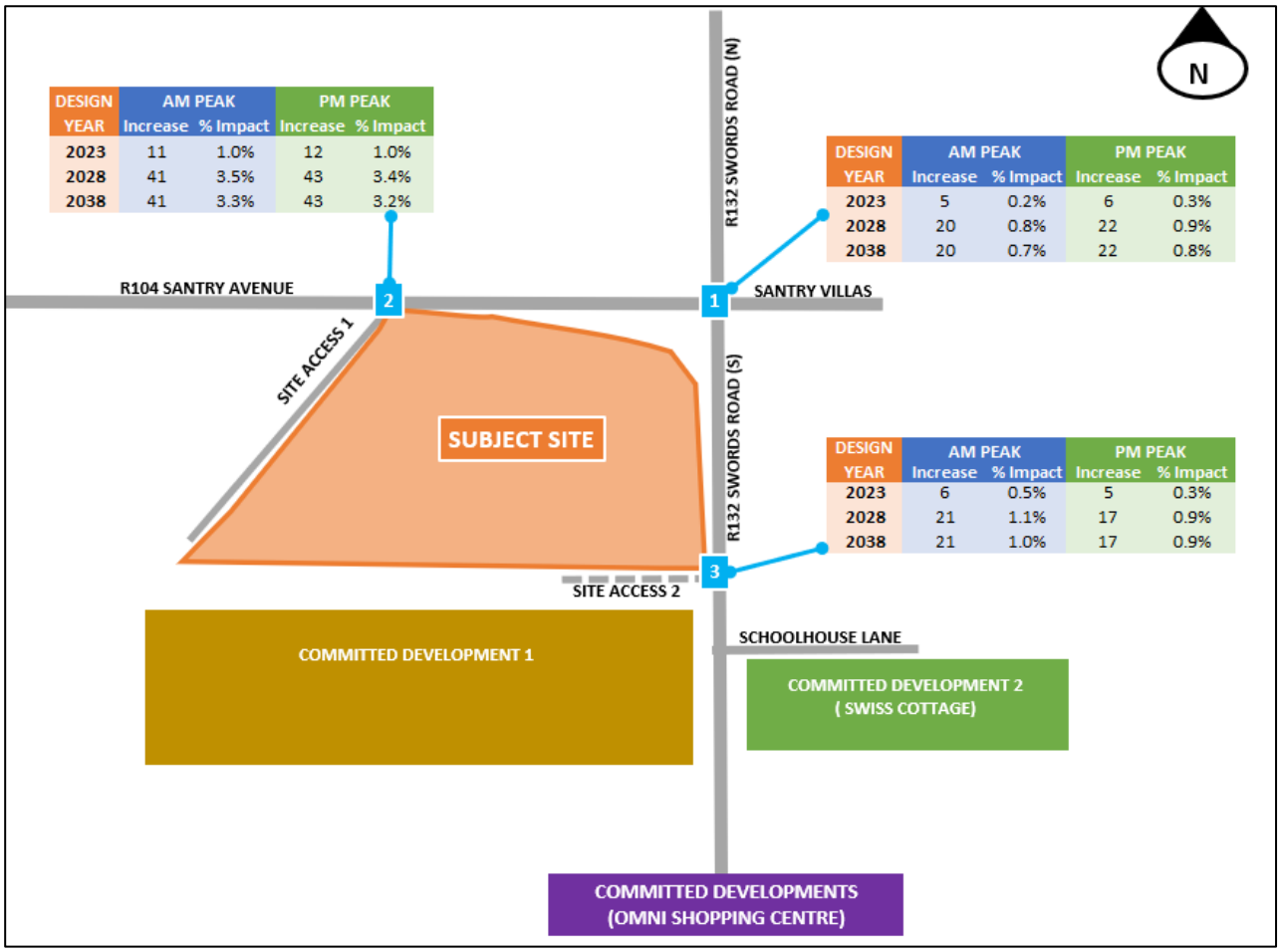


Figure 9.2: Network Cumulative Impact

9.3.5 The cumulative impact predicted for all three junctions within all design years is considered to be insignificant and well below the 5% threshold for necessitating further more detailed operational analysis. However, for the purpose of robust analysis PICADY based assessments have been undertaken for both proposed priority-controlled site access junction's (i.e. Santry Avenue and Swords Road). The assessment established that both of these site access junctions will continue

to operate within acceptable operational parameters and with reserve capacity being recorded in all future design year peak hour scenarios.

10.0 SUMMARY AND CONCLUSION

10.1 OVERVIEW

10.1.1 DBFL Consulting Engineers have been commissioned by to compile a Traffic and Transport Assessment (TTA) for a residential dominated development on a site located along Santry Avenue, Dublin 9.

10.1.2 The proposals seek permission for the demolition of the existing on-site Chadwicks buildings, closure of the Chadwicks sites existing vehicle access on Santry Avenue and associated works; and the provision of 350 no. residential apartments (and residential amenity space), 4 no. small commercial / retail units (631m2) and a medical suite/GP practice (130.4m2) at ground floor level, and associated site development and landscaped works.

10.1.3 The purpose of this TTA was to quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of transport impact generated as a result of the proposed residential development.

10.1.4 The analysis of the existing receiving environment has found the subject development site is located in a highly accessible areas in Dublin. Its unique characteristics include the following;

- The existing on-site premises (Chadwicks Builders Providers) already generates a number of vehicle trips throughout the day which have been quantified as being in the region of 28 and 20 two-way vehicle movements during the weekdays AM and PM peak hour periods.

- The site is ideally located to benefit from the existing and emerging Cycle Network Plan proposals envisioned by both DCC and the NTA.

- A comprehensive range of high frequency bus services, operated by Dublin Bus and Go-Ahead along both Swords Rd QBC and Santry Avenue, which have interchanges located within a convenient short walking distance of the subject site enhance the sustainability credentials of the subject site.

- The proposed development will benefit from enhanced public transport accessibility levels as part of the NTA's BusConnects proposals. The site is located adjoining Radial Spine (A Spine bus services) of the BusConnects and Core Bus Corridors (no. 2 Swords to/from City Centre) proposals. The

proposed development has been found to not impinge upon the NTA's emerging CBC infrastructure proposals along Swords Road.

- Due to the convenient and accessible location of the proposed development, the sustainable travel modes of public transport, cycling and walking are highly likely to be the dominant modes associated with trips to / from the proposed new development. Such trips will further enhance the commercial viability of the existing public transport services which in turn may lead to an increase in the frequency of these services which further enhances their attractiveness.

- In reference to both DCC and the DHLPG guidelines an appropriate amount of on-site car parking (0.6 spaces per unit) is being provided as part of the scheme proposals in respect of the site accessibility credentials. This quantum of parking will ensure that no overspill of car parking onto the external local network will arise.

- The overall quantum of bicycle parking proposed (777 No.) on-site as part of the development proposals is higher the minimum requirements outlined within DCC development management standards (350 no.) and equates favourable with the New Apartment Guidelines requirements (781 No.).

- It is predicted that the proposed development will generate criteria 56 and 58 two-way vehicle trips during the weekday AM and PM Peal hour periods respectively. This equates to an additional 28 and 38 two-way vehicle trips per peak hour (over that currently generated by the existing on-site activities (Chadwick's Builders Providers).

- The assessment has considered the accumulative impact arising from the development on neighbouring key sites (including Santry Place to the South) with the objective of providing a robust appraisal of the network's future operational performance.

- The network analysis has demonstrated that the scale of impact predicted to be generated by the proposed development is found to be sub-threshold at (i) the key off-site Santry Ave / Swords Rd Junction and (ii) the two site access / egress junctions. The predicted scale of impact at these three junctions is found to be in the region of only 0.7% to 3.3% in the 2038 Design

Year. The scale of impact during the peak hour periods at the Santry Ave / Swords Rd Junction is considered to be negligible when compared to that already generated by the existing Chadwicks operations.

- The AM and PM Peak Hour PICADY based assessment undertaken of both proposed priority-controlled site access junction's (i.e. Santry Ave and Swords Rd) established that both junctions will continue to operate within acceptable operational parameters and with reserve capacity being recorded in all future design year scenarios.

- An independent Road Safety Audit (reported in a separate dedicated report but included the planning documentation submitted with the SHD planning application) has been undertaken with appropriate mitigation measures identified to ensure that any road safety issues arising from the scheme are addressed fully in an appropriate manner.

10.2 CONCLUSION

10.2.1 In conclusion, it is considered that the scale of impact on the surrounding off-site road network, as a result of the proposed development on Santry Avenue will be modest. This is based on the anticipated levels of additional traffic generated by the proposed development (approximately only 1 additional trip every two minutes on average during both peak hour periods) and the information and network analysis summarised in the above report which demonstrate that the proposed site access junction on Santry Avenue is predicted to be operating within capacity in each future design year scenario.

10.2.2 It is concluded that the proposals represent a sustainable and practical approach to development on the subject lands and there are no significant traffic or transportation related reasons that should prevent the granting of planning permission for the proposed residential development.

10.2.3 As part of the identified mitigation strategy a mobility management plan (MMP) has also been provided for the development with the objective of promoting sustainable travel practices for all residents and visitors at the proposed residential development.

APPENDICES

APPENDIX A

Public Transport Bus Routes

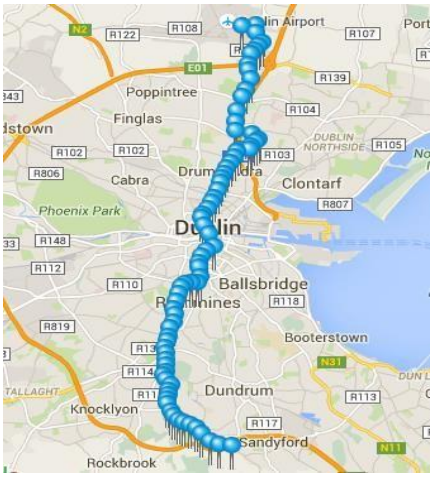


Figure A1 Dublin Bus Route 16/16c

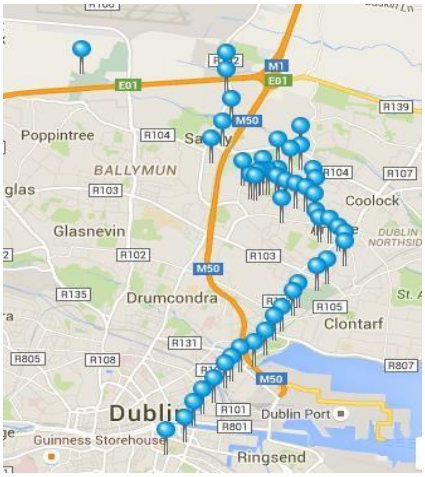


Figure A2 Dublin Bus Route 27b

Figure A3 Dublin Bus Route 33

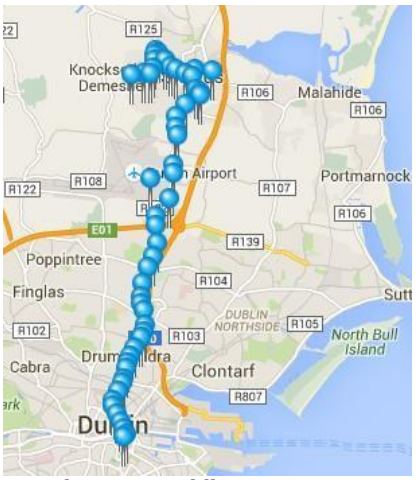


Figure A4 Dublin Bus Route 41

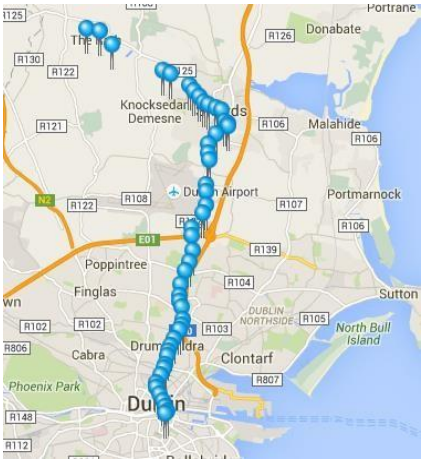
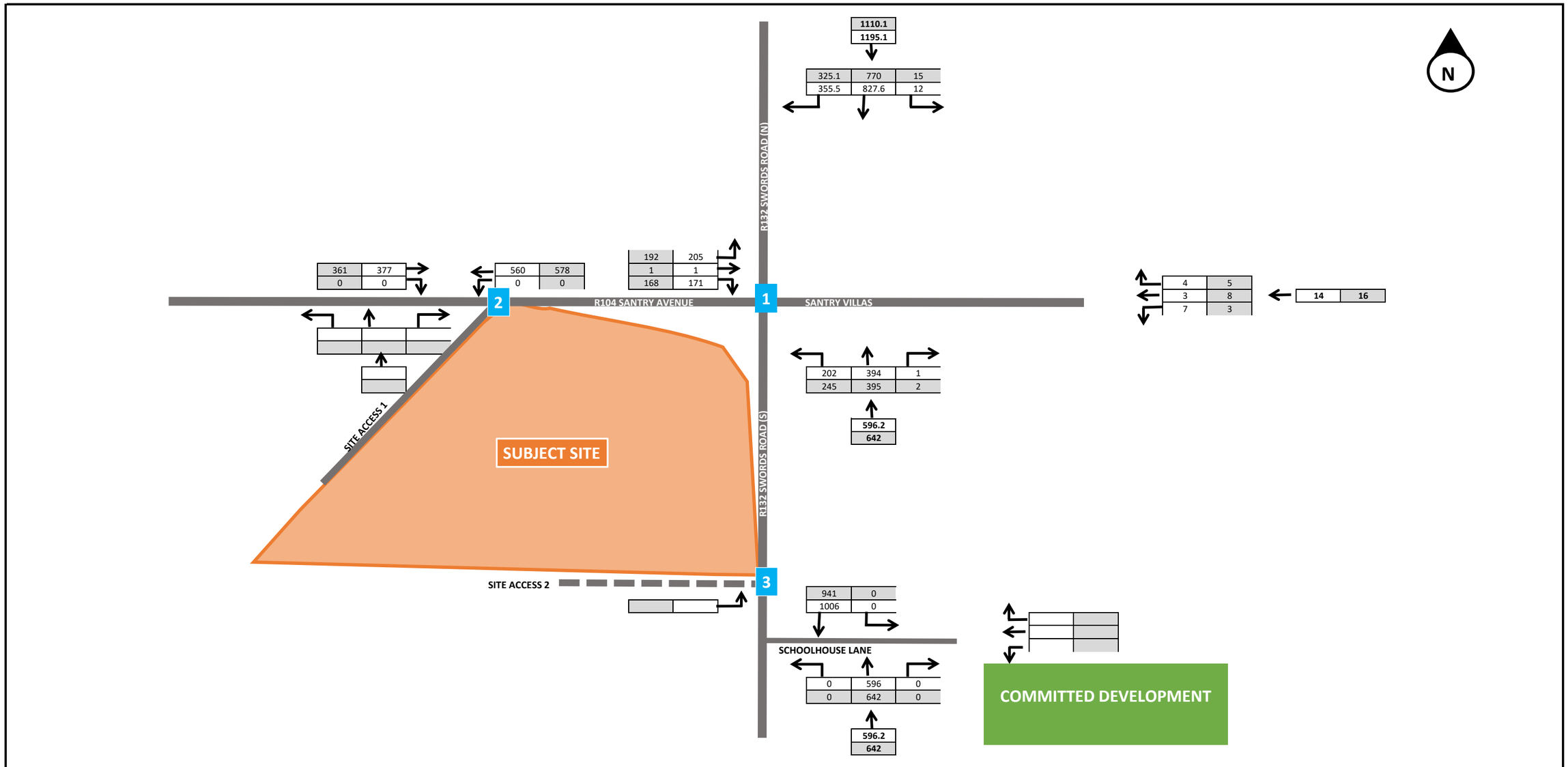


Figure A5 Dublin Bus Route 41a/b

Figure A6 Dublin Bus Route 41c

APPENDIX B

Network Flow Diagrams



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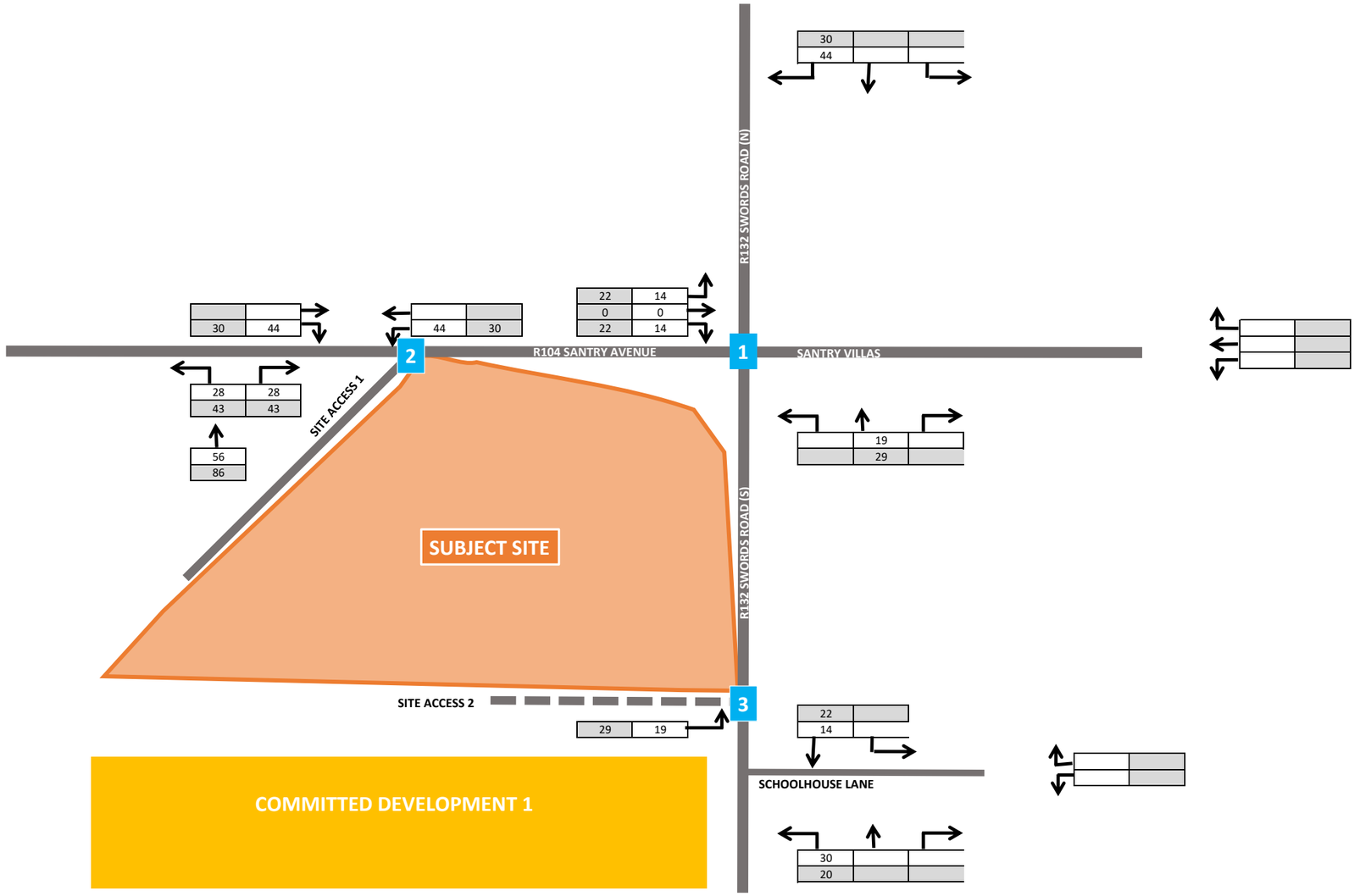

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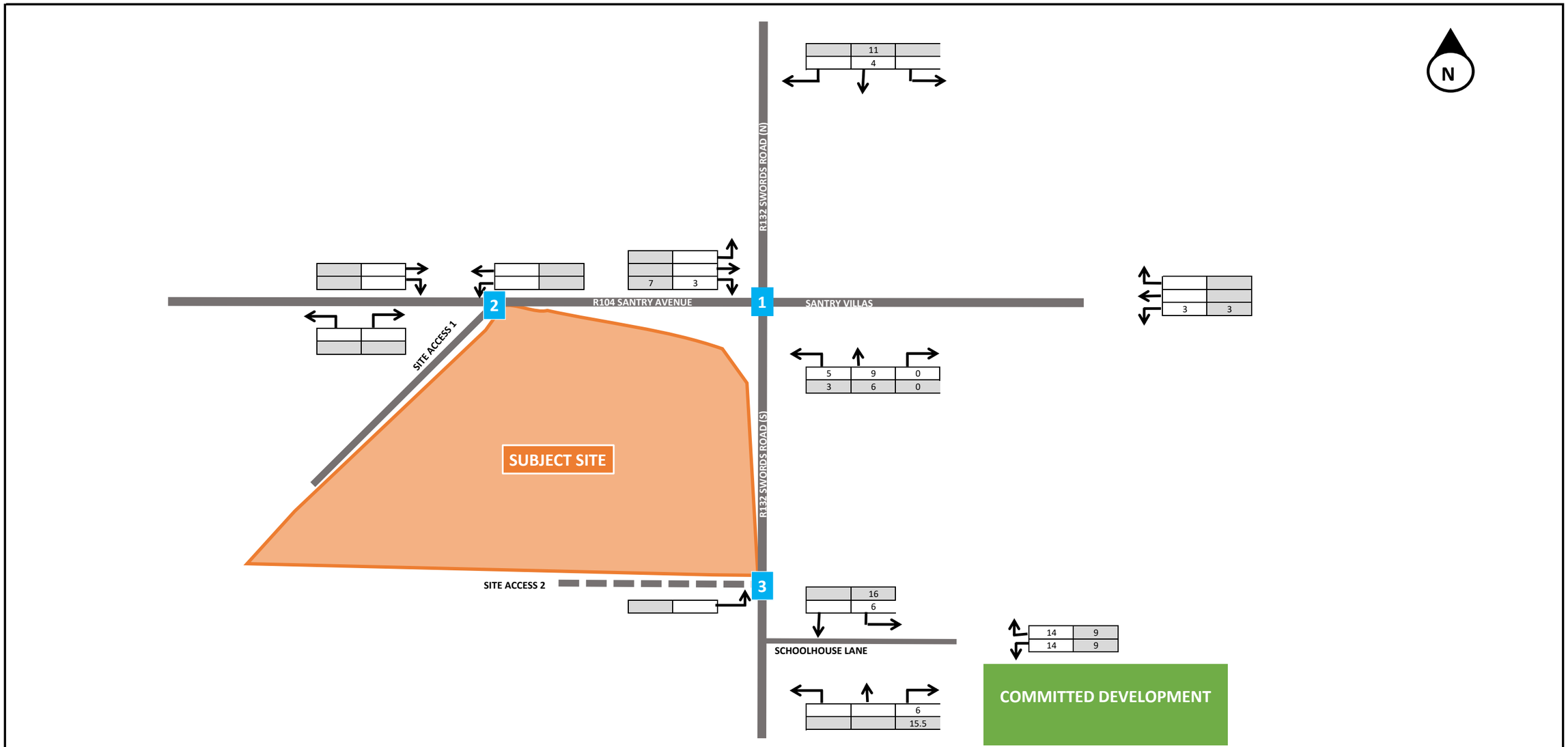

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email: info@dbfl.ie

website: www.dbfl.ie

Project :
Proposed Residential Development at Santry Avenue, Santry, Dublin 9

DRG. Title :
Network Traffic Flows - Vehicles
Commtted Development Trips
(Swiss Cottages)

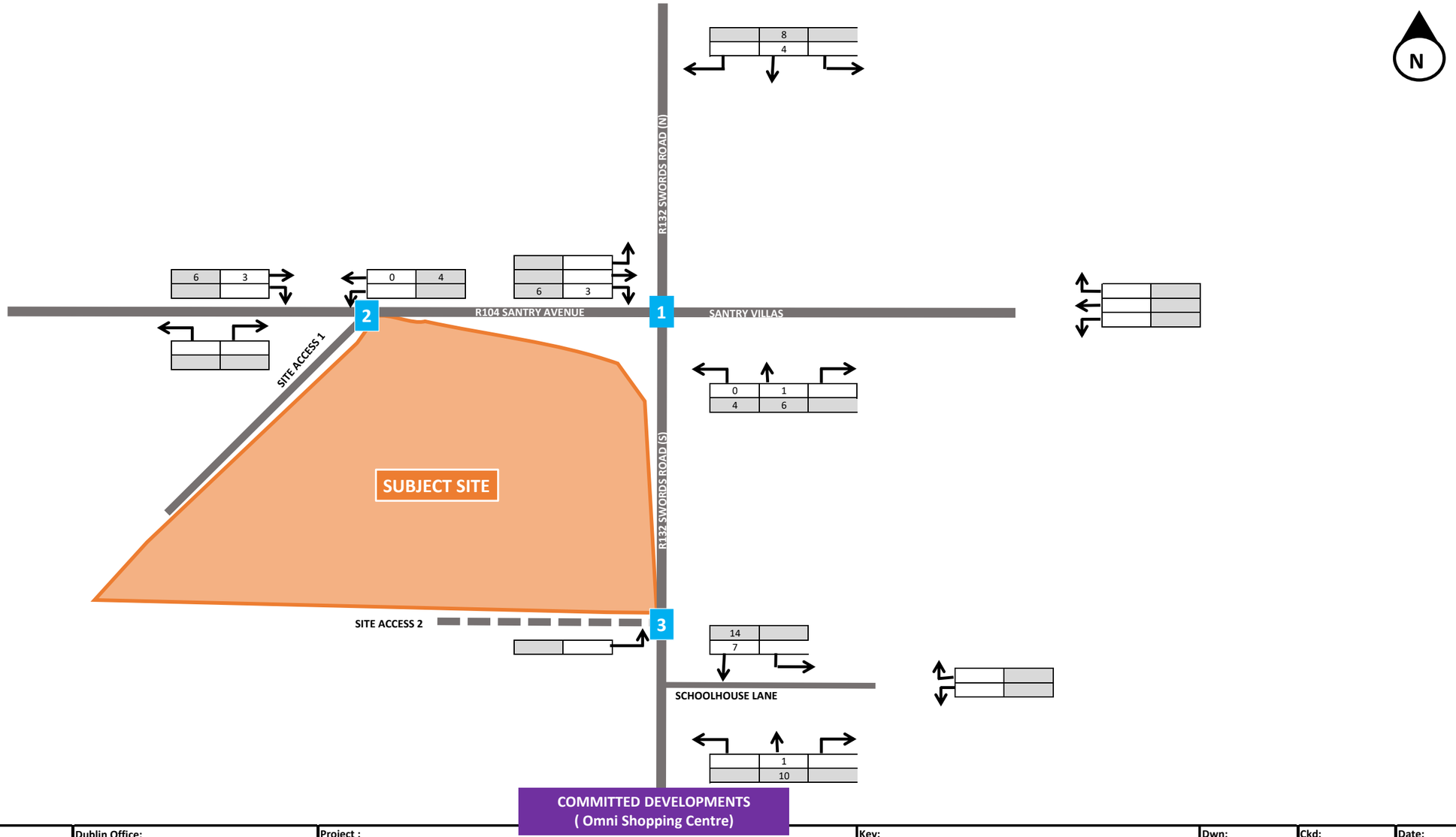
Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 6

Rev: -



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email: info@dbfl.ie

website: www.dbfl.ie

Project :
Proposed Residential Development at Santry Avenue, Santry, Dublin 9

DRG. Title :
Network Traffic Flows - Vehicles
Commtted Development Trips
(Omni Shopping Centre)

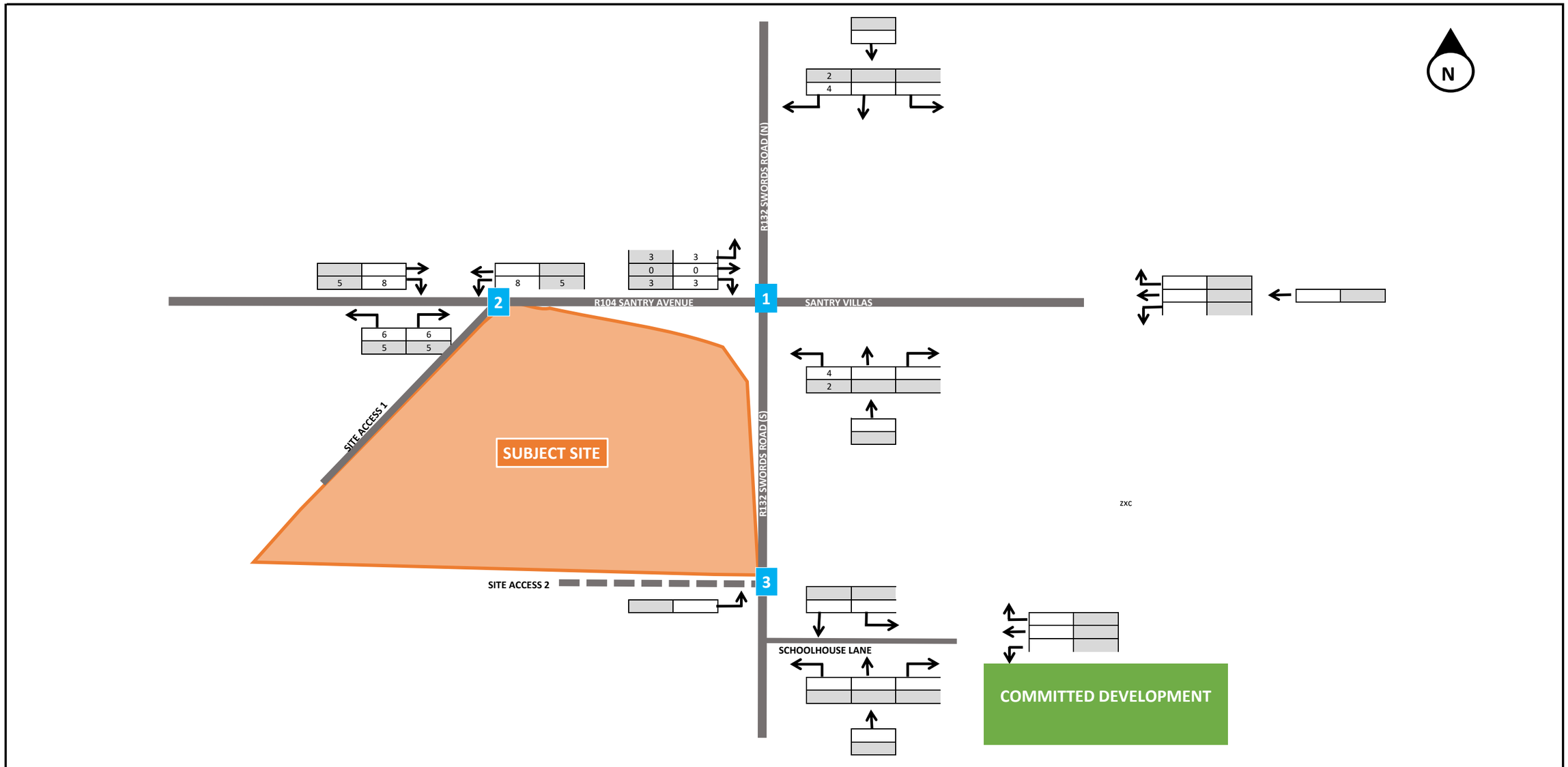
Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 6

Rev: -



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website: www.dbfl.ie

Project :
Proposed Residential Development at Santry Avenue, Santry, Dublin 9

DRG. Title :
Network Traffic Flows - Vehicles
Existing Building (Chadwicks) Trips

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

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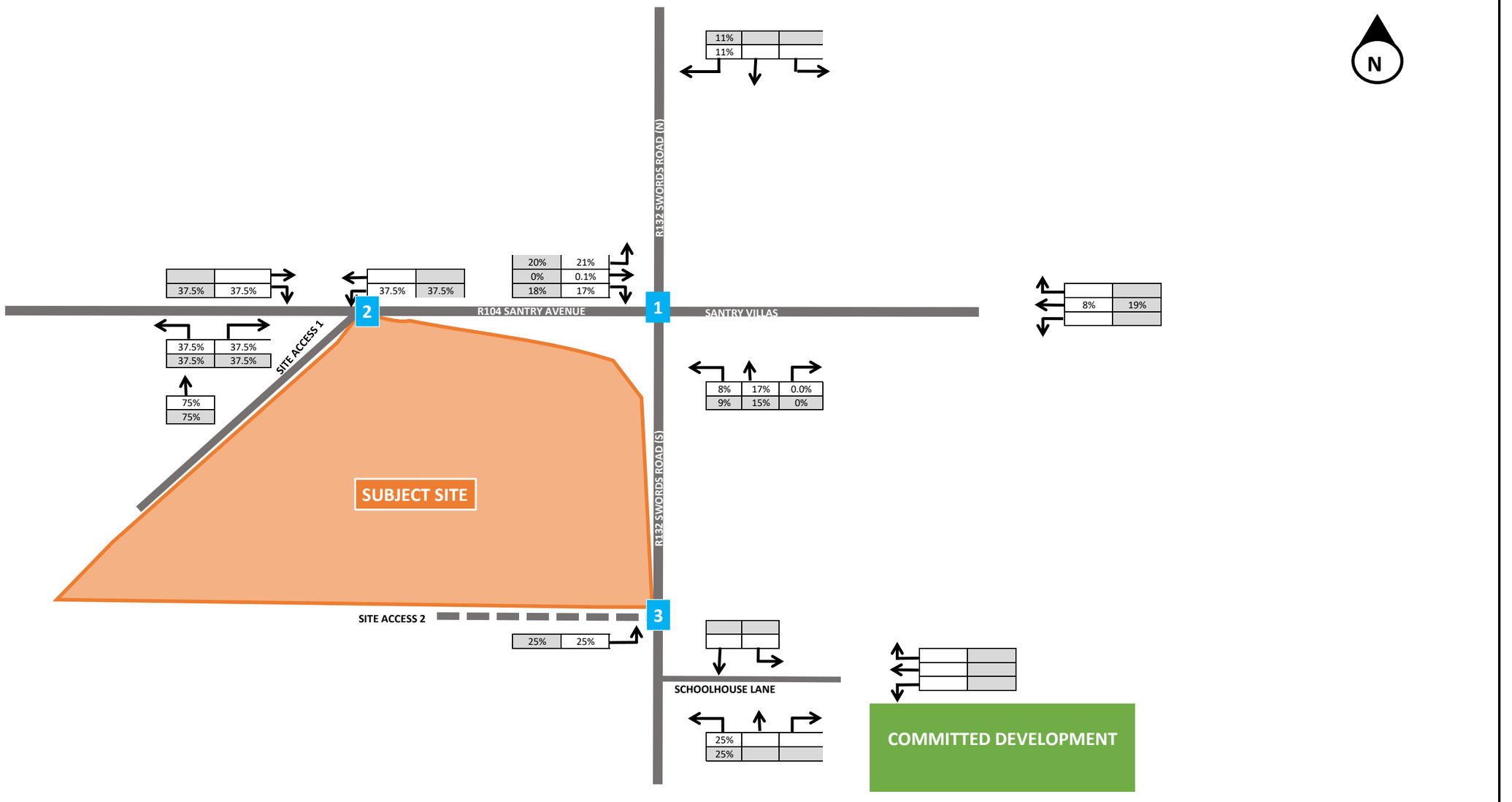

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Project :
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DRG. Title :
Network Traffic Flows - Vehicles Trip Distribution

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

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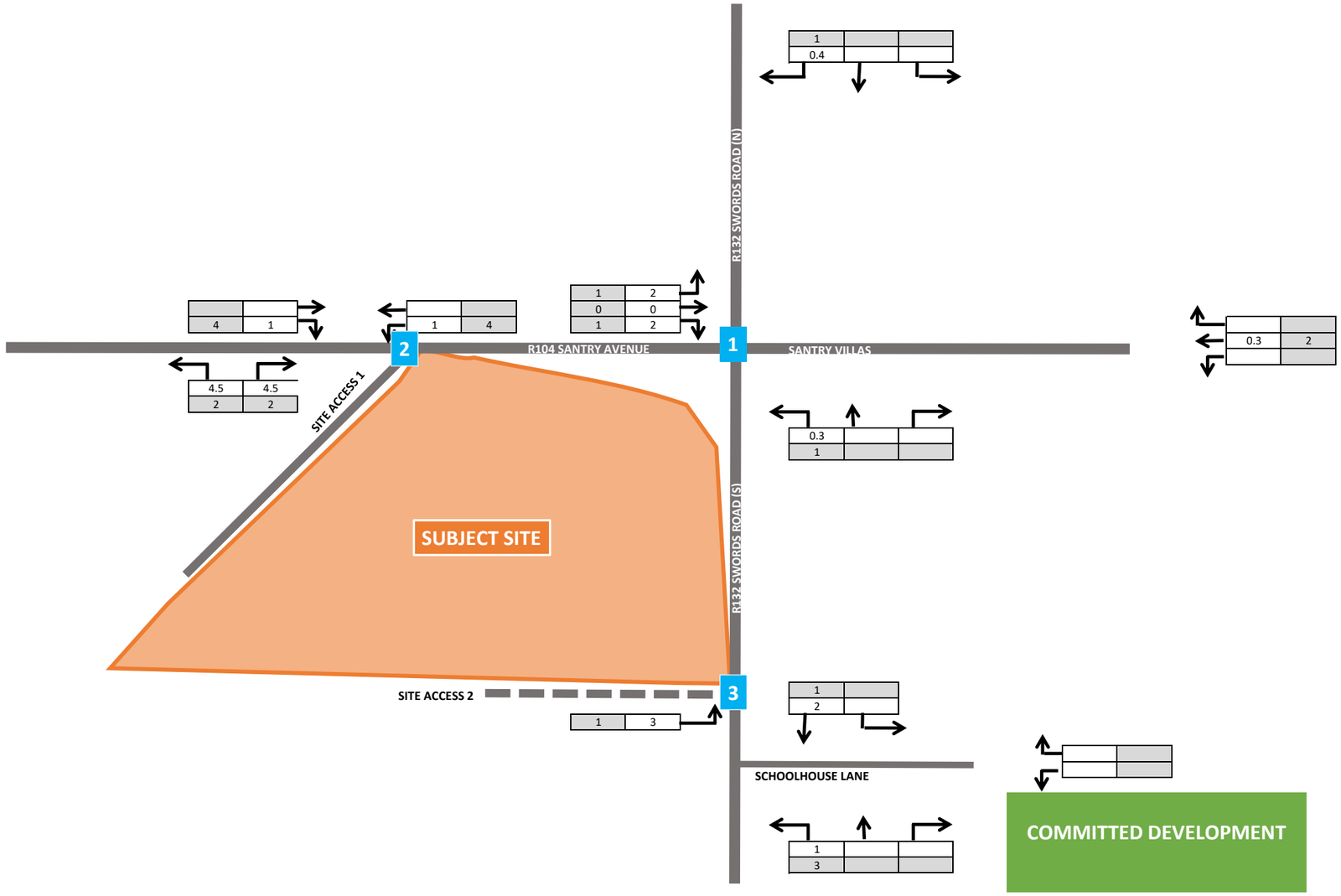
Rev: -



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website: www.dbfl.ie

Project :
Proposed Residential Development at Santry Avenue, Santry, Dublin 9

DRG. Title :
Network Traffic Flows - Vehicles
Proposed Development Trips-Phase 1

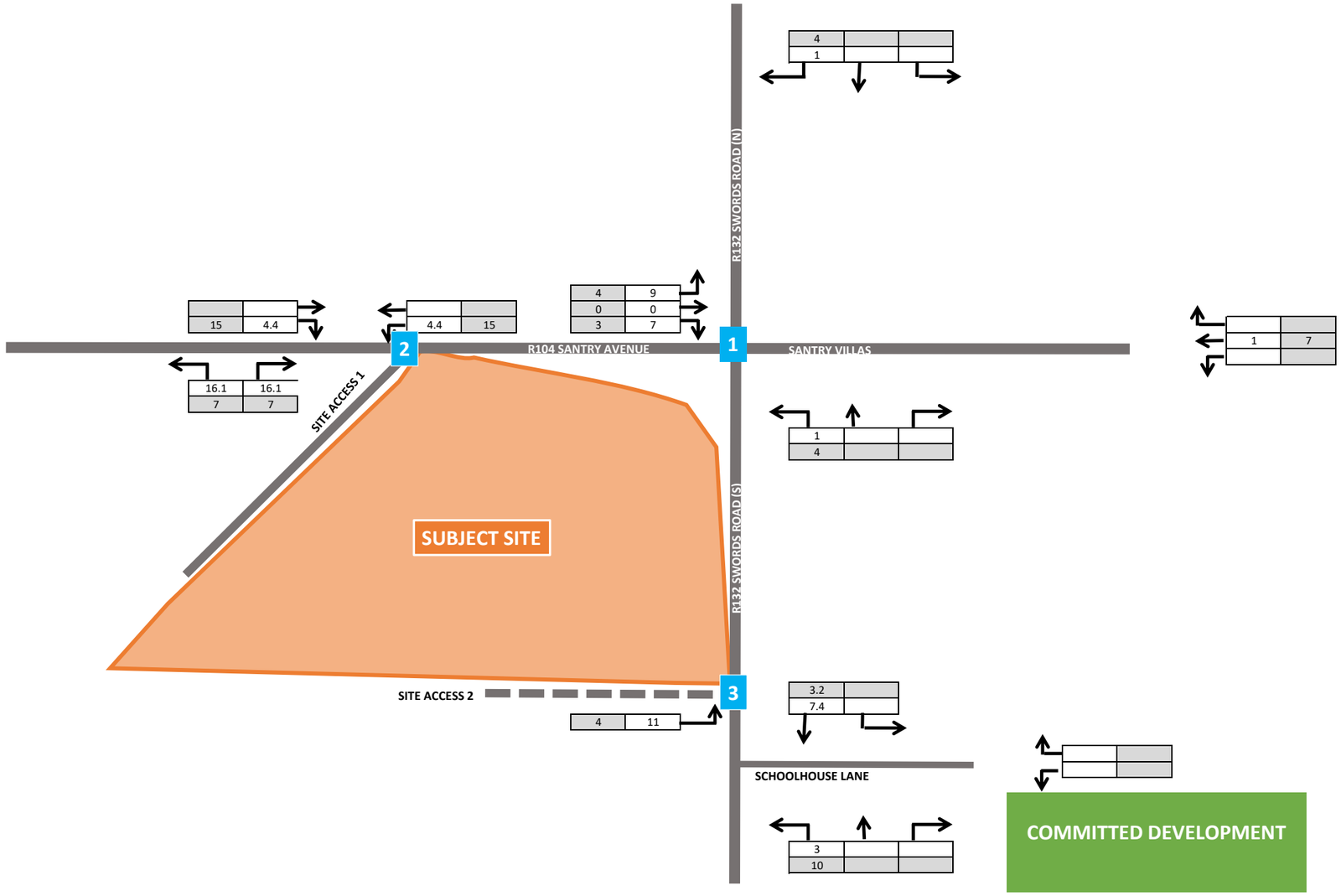
Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 7

Rev: -



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Project :
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DRG. Title :
Network Traffic Flows - Vehicles
Proposed Development Trips

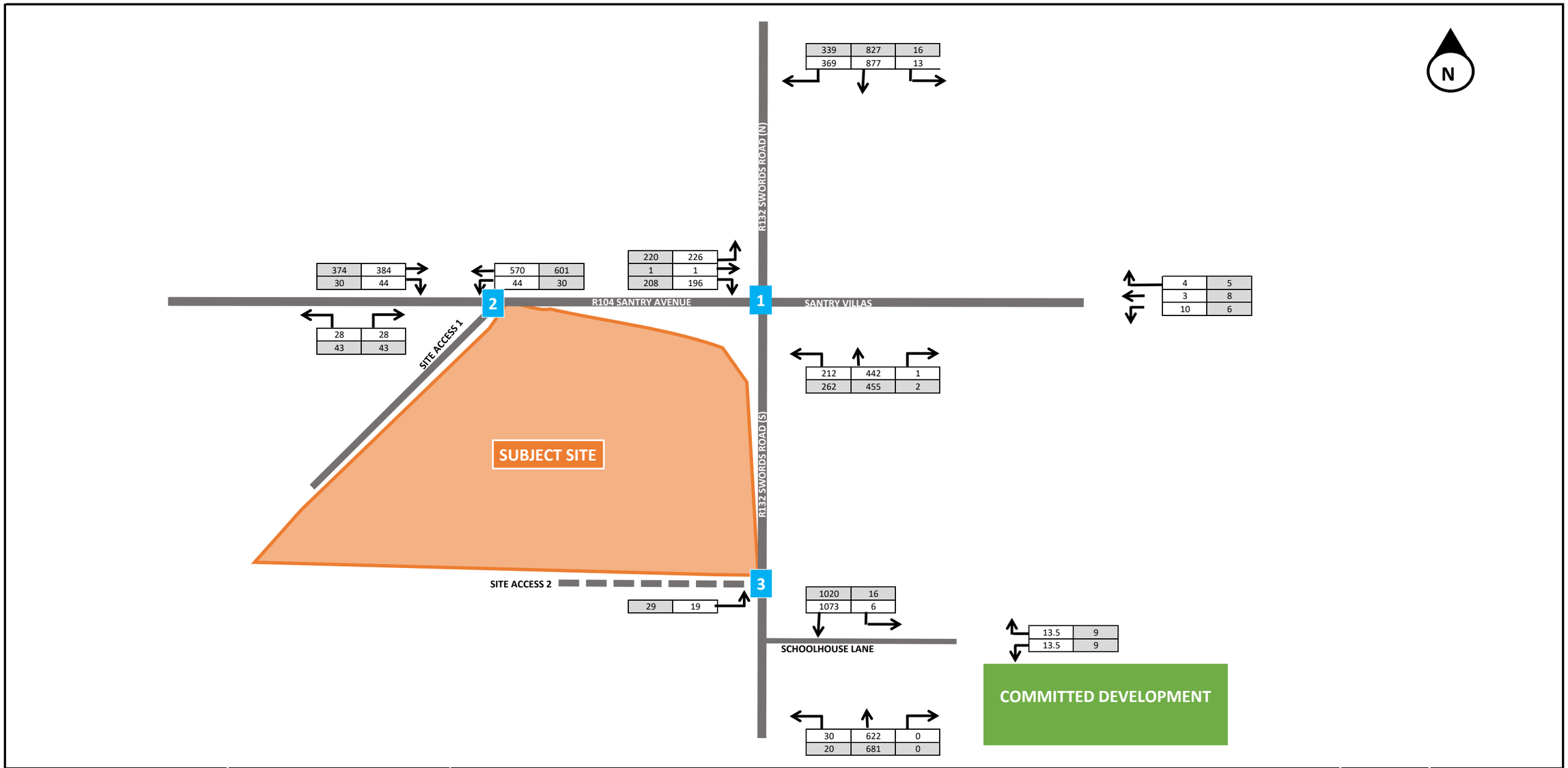
Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 7

Rev: -



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email: info@dbfl.ie

website: www.dbfl.ie

Project :
Proposed Residential Development at Santry Avenue, Santry, Dublin 9

DRG. Title :
Network Traffic Flows - Vehicles
Do Nothing 2023

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (17:00 to 18:00)

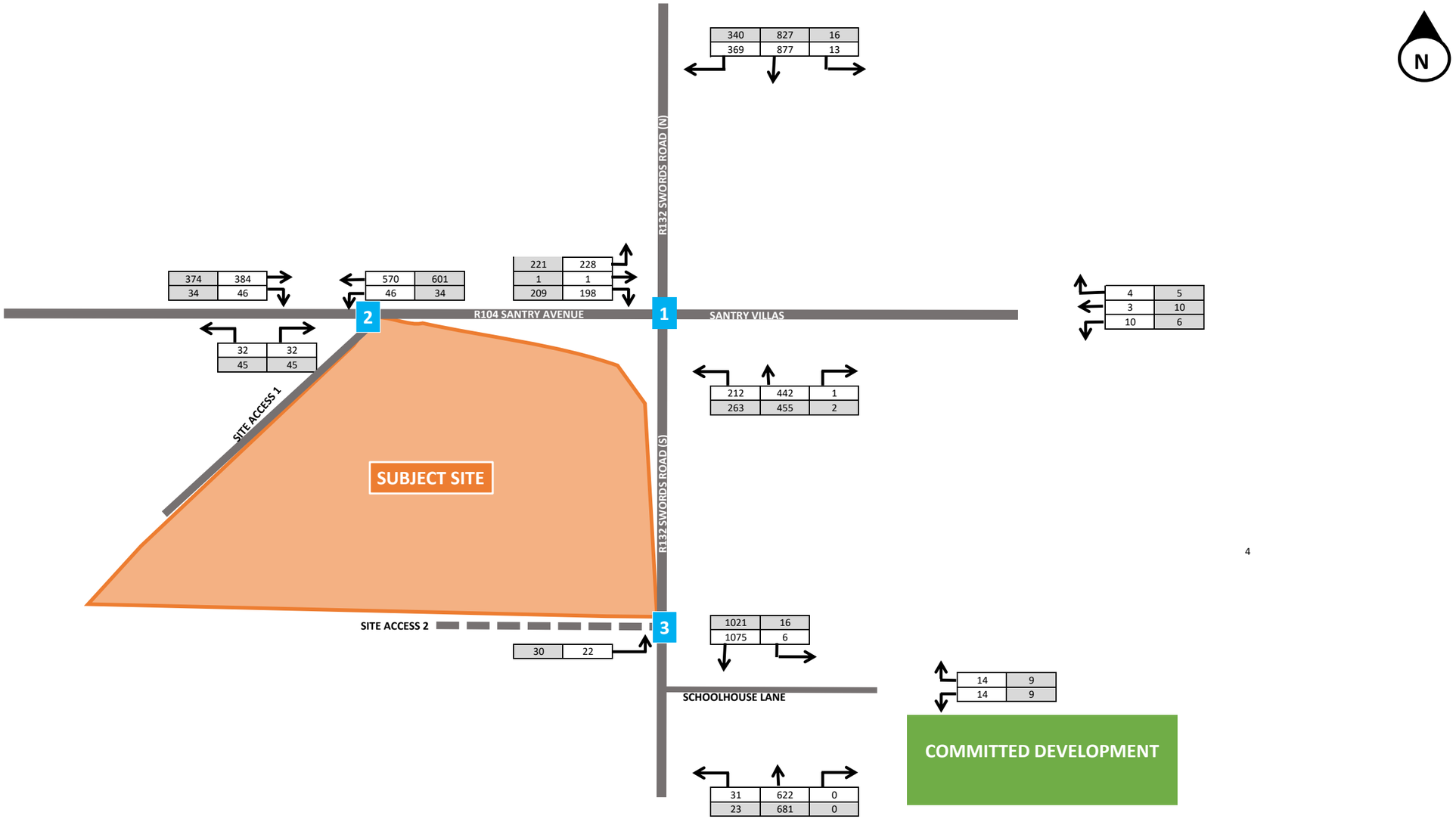
Growth Rate: 1.0494

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 8

Rev: -



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website: www.dbfl.ie

Project :
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DRG. Title :
Network Traffic Flows - Vehicles
Do Something 2023

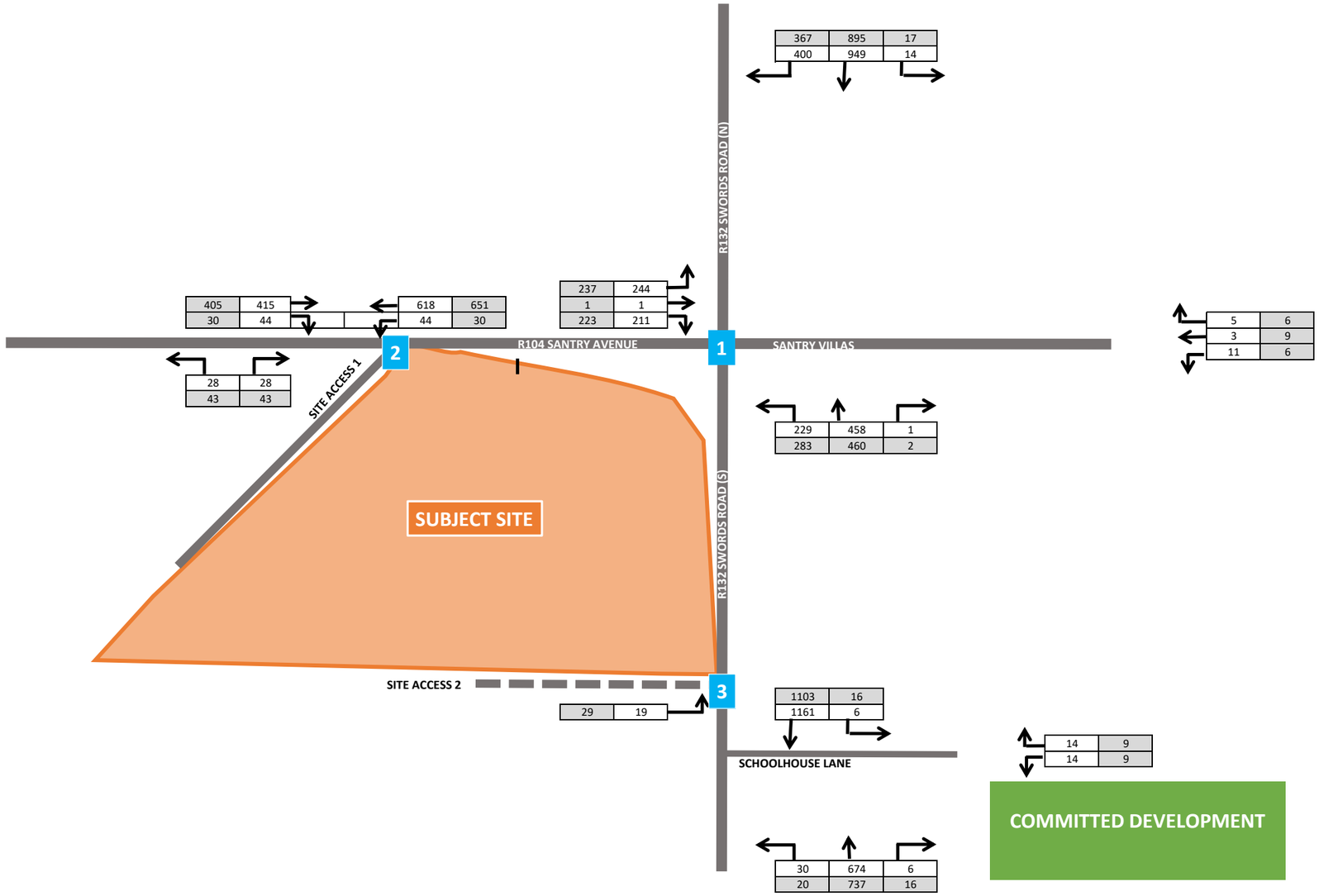
Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (16:0 (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 9

Rev: -



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Project :
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DRG. Title :
Network Traffic Flows - Vehicles
Do Nothing 2028

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (16:0 (17:00 to 18:00)

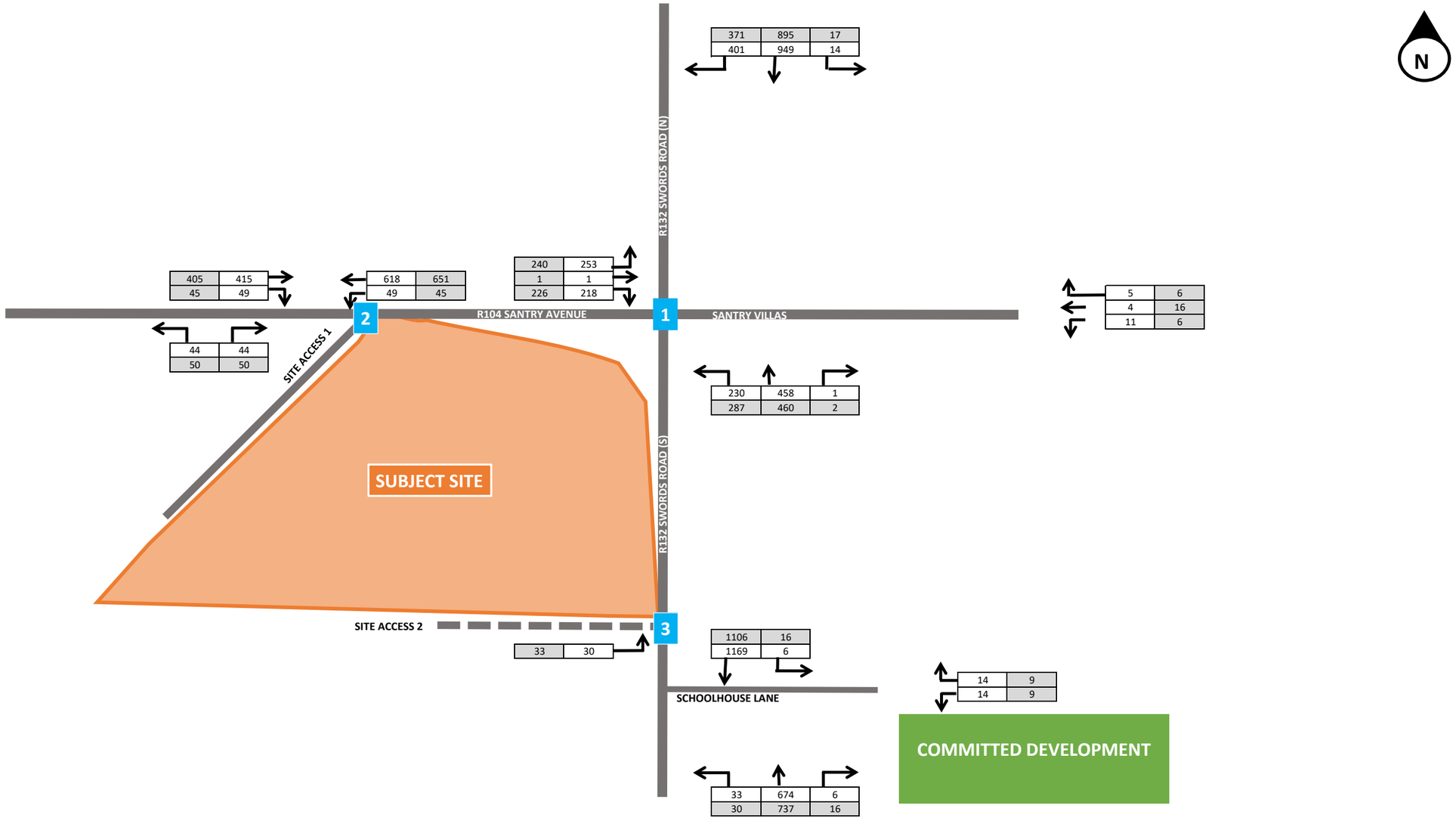
Growth Rate: 1.1372

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 10

Rev: -



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website: www.dbfl.ie

Project :
Proposed Residential Development at Santry Avenue, Santry, Dublin 9

DRG. Title :
Network Traffic Flows - Vehicles
Do Something 2028

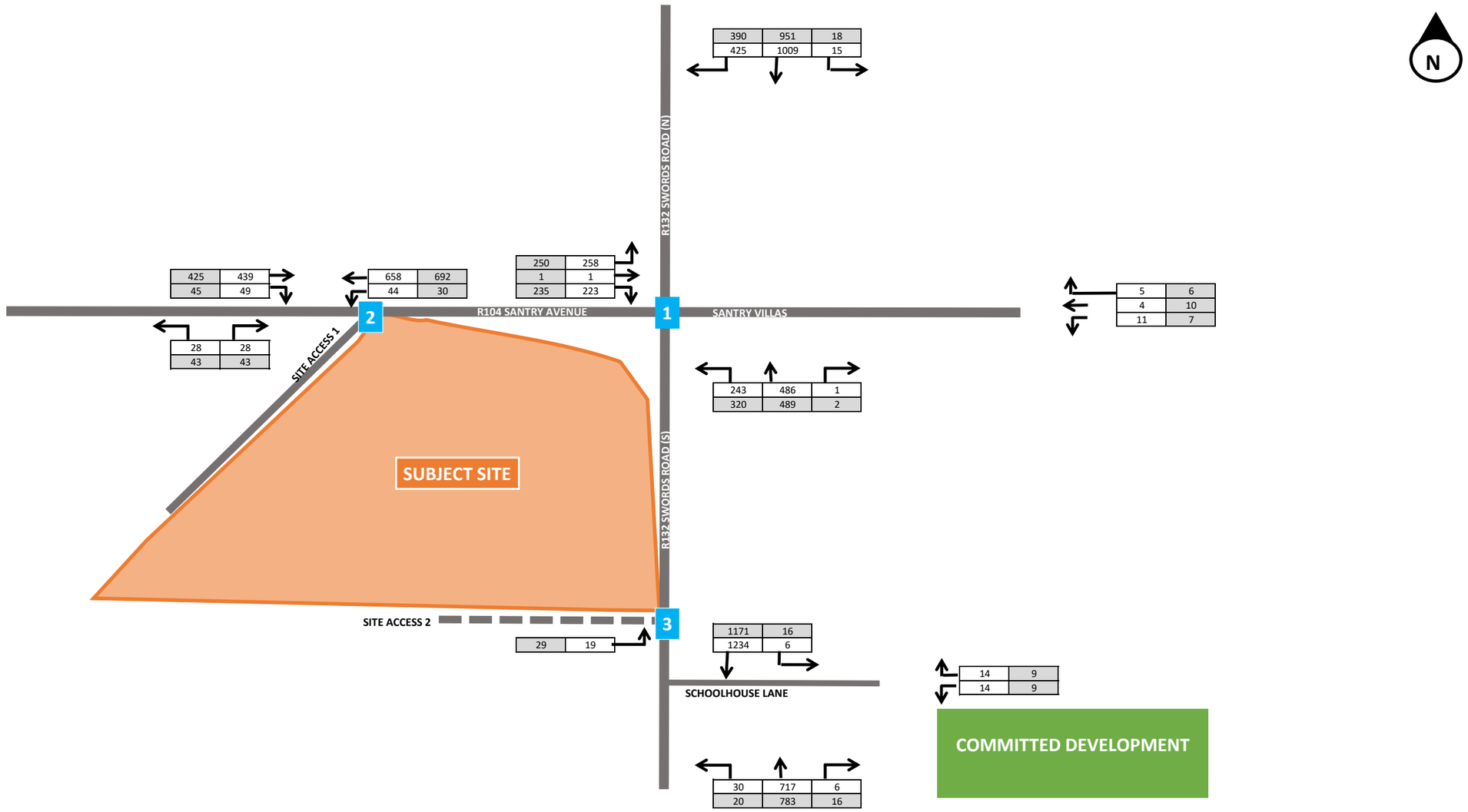
Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (16:0 (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 11

Rev: -



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website: www.dbfl.ie

Project :
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DRG. Title :
Network Traffic Flows - Vehicles
Do Nothing 2038

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (16:0 (17:00 to 18:00)

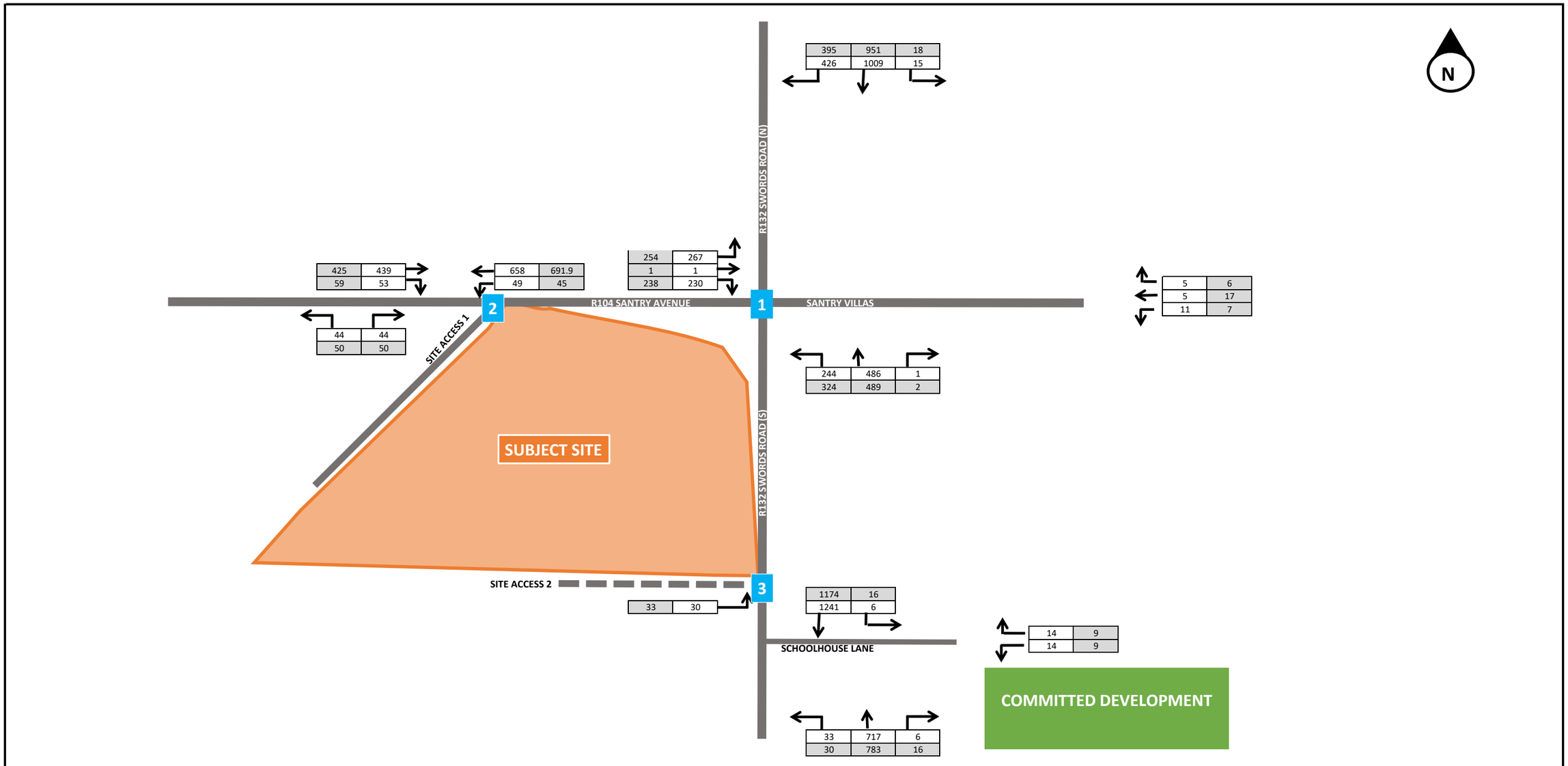
Growth Rate: 1.210

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 12

Rev: -



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website: www.dbfl.ie

Project :
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DRG. Title :
Network Traffic Flows - Vehicles
Do Something 2038

Key:
AM Peak Hour (08:00 to 09:00)
PM Peak Hour (16:0 (17:00 to 18:00)

Dwn:	Ckd:	Date:
SAS	TJ	06/07/2020

Ref: p200060\calcs\excel\Traffic\ Traffic Model01

Figure: 13

Rev: -

NETWORK IMPACT

Junction 1

PERIOD	YEAR	DN	DS	Difference	Percentage Impact
AM	2023	2354	2359	5	0.2%
	2028	2525	2545	20	0.8%
	2038	2682	2702	20	0.7%

PERIOD	YEAR	DN	DS	Difference	Impact
PM	2023	2349	2355	6	0.3%
	2028	2506	2529	22	0.9%
	2038	2679	2701	22	0.8%

Junction 2

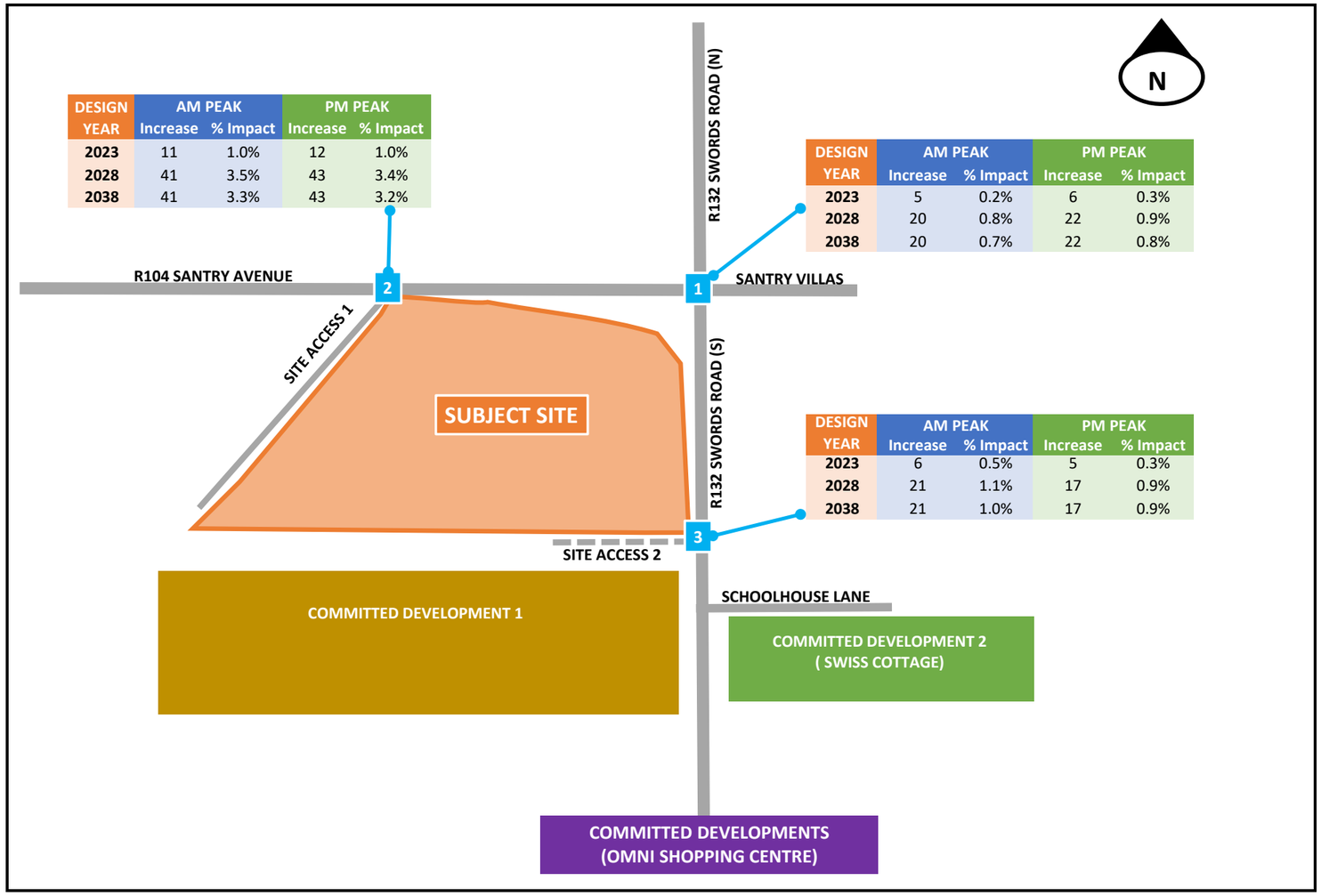
PERIOD	YEAR	DN	DS	Difference	Percentage Impact
AM	2023	1099	1110	11	1.0%
	2028	1178	1219	41	3.5%
	2038	1246	1287	41	3.3%

PERIOD	YEAR	DN	DS	Difference	Impact
PM	2023	1120	1132	12	1.0%
	2028	1201	1244	43	3.4%
	2038	1277	1320	43	3.2%
		1277	1320		

Junction 3

PERIOD	YEAR	DN	DS	Difference	Percentage Impact
AM	2023	1764	1770	6	0.5%
	2028	1904	1925	21	1.1%
	2038	2020	2041	21	1.0%

PERIOD	YEAR	DN	DS	Difference	Impact
PM	2023	1775	1780	5	0.3%
	2028	1914	1931	17	0.9%
	2038	2028	2045	17	0.9%



APPENDIX C

TRICS Outputs

Calculation Reference: AUDIT-638801-200522-0544

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
	SF	SUFFOLK	2 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	NT	NOTTINGHAMSHIRE	2 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	RI	EAST RIDING OF YORKSHIRE	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	2 days
09	NORTH		
	CB	CUMBRIA	3 days
10	WALES		
	CO	CONWY	1 days
11	SCOTLAND		
	EB	CITY OF EDINBURGH	1 days
	SA	SOUTH AYRSHIRE	1 days
	SR	STIRLING	2 days
12	CONNAUGHT		
	GA	GALWAY	1 days
13	MUNSTER		
	WA	WATERFORD	1 days
14	LEINSTER		
	LU	LOUTH	3 days
15	GREATER DUBLIN		
	DL	DUBLIN	6 days
16	ULSTER (REPUBLIC OF IRELAND)		
	MG	MONAGHAN	1 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 9 to 184 (units:)
Range Selected by User: 8 to 372 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 25/09/19

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

Selected survey days:

Monday	5 days
Tuesday	12 days
Wednesday	7 days
Thursday	5 days
Friday	3 days

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

Selected survey types:

Manual count	32 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	11
Suburban Area (PPS6 Out of Centre)	15
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Development Zone	2
Residential Zone	18
Built-Up Zone	5
No Sub Category	7

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

Secondary Filtering selection:

Use Class:

C3	32 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	3 days
10,001 to 15,000	7 days
15,001 to 20,000	4 days
20,001 to 25,000	5 days
25,001 to 50,000	10 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	4 days
50,001 to 75,000	8 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	6 days
500,001 or More	7 days

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

Car ownership within 5 miles:

0.6 to 1.0	11 days
1.1 to 1.5	21 days

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

Travel Plan:

No	32 days

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

PTAL Rating:

No PTAL Present	32 days

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

LIST OF SITES relevant to selection parameters

1 AN-03-C-02 BLOCK OF FLATS ANTRIM
SUMMERHILL AVENUE
BELFAST
KNOCK
Edge of Town
Residential Zone
Total No of Dwellings: 22
Survey date: FRIDAY *28/11/14* *Survey Type: MANUAL*

2 CA-03-C-03 BLOCKS OF FLATS CAMBRIDGESHIRE
CROMWELL ROAD
CAMBRIDGE

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 82
Survey date: MONDAY *18/09/17* *Survey Type: MANUAL*

3 CB-03-C-01 BLOCK OF FLATS CUMBRIA
KING STREET
CARLISLE

Town Centre
Built-Up Zone
Total No of Dwellings: 40
Survey date: THURSDAY *12/06/14* *Survey Type: MANUAL*

4 CB-03-C-02 BLOCK OF FLATS CUMBRIA
BRIDGE LANE
PENRITH

Edge of Town
No Sub Category
Total No of Dwellings: 35
Survey date: WEDNESDAY *11/06/14* *Survey Type: MANUAL*

5 CB-03-C-03 FLATS & BUNGALOWS CUMBRIA
LOUND STREET
KENDAL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 33
Survey date: MONDAY *09/06/14* *Survey Type: MANUAL*

6 CO-03-C-01 BLOCKS OF FLATS CONWY
MOSTYN BROADWAY
LLANDUDNO

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 37
Survey date: MONDAY *26/03/18* *Survey Type: MANUAL*

7 DL-03-C-11 BLOCK OF FLATS DUBLIN
WYCKHAM WAY
DUBLIN
DUNDRUM
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 96
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

8 DL-03-C-12 BLOCK OF FLATS DUBLIN
BOOTERSTOWN AVENUE
DUBLIN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 47
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 DL-03-C-13 BLOCK OF FLATS DUBLIN
SANDYFORD ROAD
DUBLIN

Neighbourhood Centre (PPS6 Local Centre)
Built-Up Zone
Total No of Dwellings: 52
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

10 DL-03-C-14 BLOCKS OF FLATS DUBLIN
BALLINTEER ROAD
DUBLIN
DUNDRUM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 140
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

11 DL-03-C-15 BLOCKS OF FLATS DUBLIN
MONKSTOWN ROAD
DUBLIN
MONKSTOWN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 20
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

12 DL-03-C-16 BLOCKS OF FLATS DUBLIN
BOTANIC AVENUE
DUBLIN
DRUMCONDRA
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 31
Survey date: TUESDAY *22/11/16* *Survey Type: MANUAL*

13 DS-03-C-03 BLOCKS OF FLATS DERBYSHIRE
CAESAR STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 30
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

14 EB-03-C-01 BLOCKS OF FLATS CITY OF EDINBURGH
MYRESIDE ROAD
EDINBURGH
CRAIGLOCKHART
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 32
Survey date: TUESDAY *26/05/15* *Survey Type: MANUAL*

15 GA-03-C-01 FLATS GALWAY
BALLYLOUGHANE ROAD
GALWAY

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 34
Survey date: THURSDAY *31/10/13* *Survey Type: MANUAL*

16 LU-03-C-01 BLOCKS OF FLATS LOUTH
DONORE ROAD
DROGHEDA

Edge of Town Centre
Residential Zone
Total No of Dwellings: 52
Survey date: THURSDAY *12/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 LU-03-C-02 BLOCK OF FLATS LOUTH
NICHOLAS STREET
DUNDALK

Edge of Town Centre
Residential Zone
Total No of Dwellings: 33
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

18 LU-03-C-03 BLOCK OF FLATS LOUTH
NICHOLAS STREET
DUNDALK

Edge of Town Centre
Residential Zone
Total No of Dwellings: 20
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

19 MG-03-C-01 BLOCK OF FLATS MONAGHAN
MALL ROAD
MONAGHAN

Edge of Town Centre
No Sub Category
Total No of Dwellings: 28
Survey date: FRIDAY *06/09/13* *Survey Type: MANUAL*

20 MS-03-C-02 BLOCKS OF FLATS MERSEYSIDE
SOUTH FERRY QUAY
LIVERPOOL
BRUNSWICK DOCK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total No of Dwellings: 184
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

21 MS-03-C-03 BLOCK OF FLATS MERSEYSIDE
MARINERS WHARF
LIVERPOOL
QUEENS DOCK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total No of Dwellings: 9
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

22 NF-03-C-01 BLOCKS OF FLATS NORFOLK
PAGE STAIR LANE
KING'S LYNN

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 51
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

23 NT-03-C-01 HOUSES (SPLIT INTO FLATS) NOTTINGHAMSHIRE
LAWRENCE WAY
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 56
Survey date: TUESDAY *08/11/16* *Survey Type: MANUAL*

24 NT-03-C-02 HOUSES (SPLIT INTO FLATS) NOTTINGHAMSHIRE
CASTLE MARINA ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 135
Survey date: WEDNESDAY *09/11/16* *Survey Type: MANUAL*

25 RI-03-C-01 FLATS EAST RIDING OF YORKSHIRE
465 PRIORY ROAD
HULL

Edge of Town
Residential Zone
Total No of Dwellings: 20
Survey date: TUESDAY *13/05/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

26 SA-03-C-01 BLOCK OF FLATS SOUTH AYRSHIRE
RACECOURSE ROAD
AYR

Edge of Town Centre
Residential Zone
Total No of Dwellings: 51
Survey date: TUESDAY *16/09/14* *Survey Type: MANUAL*

27 SF-03-C-01 BLOCKS OF FLATS SUFFOLK
STATION HILL
BURY ST EDMUNDS

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 85
Survey date: THURSDAY *18/12/14* *Survey Type: MANUAL*

28 SF-03-C-03 BLOCKS OF FLATS SUFFOLK
TOLLGATE LANE
BURY ST EDMUNDS

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 30
Survey date: WEDNESDAY *03/12/14* *Survey Type: MANUAL*

29 SR-03-C-01 FLATS STIRLING
FORTHSIDE WAY
STIRLING

Edge of Town Centre
No Sub Category
Total No of Dwellings: 80
Survey date: WEDNESDAY *18/06/14* *Survey Type: MANUAL*

30 SR-03-C-02 FLATS STIRLING
ROSEBERRY TERRACE
STIRLING

Edge of Town Centre
Residential Zone
Total No of Dwellings: 48
Survey date: WEDNESDAY *18/06/14* *Survey Type: MANUAL*

31 WA-03-C-01 BLOCKS OF FLATS WATERFORD
UPPER YELLOW ROAD
WATERFORD

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 51
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

32 WM-03-C-04 BLOCKS OF FLATS WEST MIDLANDS
GILLQUART WAY
COVENTRY
PARKSIDE
Edge of Town Centre
Residential Zone
Total No of Dwellings: 55
Survey date: FRIDAY *11/11/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	32	54	0.051	32	54	0.167	32	54	0.218
08:00 - 09:00	32	54	0.056	32	54	0.205	32	54	0.261
09:00 - 10:00	32	54	0.074	32	54	0.104	32	54	0.178
10:00 - 11:00	32	54	0.059	32	54	0.077	32	54	0.136
11:00 - 12:00	32	54	0.067	32	54	0.080	32	54	0.147
12:00 - 13:00	32	54	0.084	32	54	0.081	32	54	0.165
13:00 - 14:00	32	54	0.070	32	54	0.086	32	54	0.156
14:00 - 15:00	32	54	0.084	32	54	0.081	32	54	0.165
15:00 - 16:00	32	54	0.101	32	54	0.063	32	54	0.164
16:00 - 17:00	32	54	0.118	32	54	0.080	32	54	0.198
17:00 - 18:00	32	54	0.187	32	54	0.086	32	54	0.273
18:00 - 19:00	32	54	0.170	32	54	0.099	32	54	0.269
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.121			1.209			2.330

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:	9 - 184 (units:)
Survey date date range:	01/01/12 - 25/09/19
Number of weekdays (Monday-Friday):	32
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.

Calculation Reference: AUDIT-638801-210608-0659

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : L - BUILDER'S MERCHANTS
TOTAL VEHICLES

Selected regions and areas:
05 EAST MIDLANDS
LN LINCOLNSHIRE 1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 13051 to 13051 (units: sqm)
Range Selected by User: 600 to 13051 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 15/02/20

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

Selected survey days:
Tuesday 1 days

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

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:
Edge of Town Centre 1

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

Selected Location Sub Categories:
Commercial Zone 1

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

Secondary Filtering selection:

Use Class:
E(a) 1 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000	1 days

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

Population within 5 miles:

50,001 to 75,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	1 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	1 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	1 days

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

PTAL Rating:

No PTAL Present	1 days

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

LIST OF SITES relevant to selection parameters

1 LN-01-L-02 JACKSON BUILDING CENTRE LINCOLNSHIRE
SOUTH PARADE
GRANTHAM

Edge of Town Centre
Commercial Zone
Total Gross floor area: 13051 sqm
Survey date: TUESDAY *11/06/13* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS
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 - 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	1	13051	0.069	1	13051	0.000	1	13051	0.069
07:00 - 08:00	1	13051	0.284	1	13051	0.215	1	13051	0.499
08:00 - 09:00	1	13051	0.391	1	13051	0.276	1	13051	0.667
09:00 - 10:00	1	13051	0.268	1	13051	0.268	1	13051	0.536
10:00 - 11:00	1	13051	0.345	1	13051	0.291	1	13051	0.636
11:00 - 12:00	1	13051	0.322	1	13051	0.306	1	13051	0.628
12:00 - 13:00	1	13051	0.284	1	13051	0.322	1	13051	0.606
13:00 - 14:00	1	13051	0.253	1	13051	0.268	1	13051	0.521
14:00 - 15:00	1	13051	0.268	1	13051	0.306	1	13051	0.574
15:00 - 16:00	1	13051	0.230	1	13051	0.253	1	13051	0.483
16:00 - 17:00	1	13051	0.138	1	13051	0.284	1	13051	0.422
17:00 - 18:00	1	13051	0.008	1	13051	0.061	1	13051	0.069
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.860			2.850			5.710

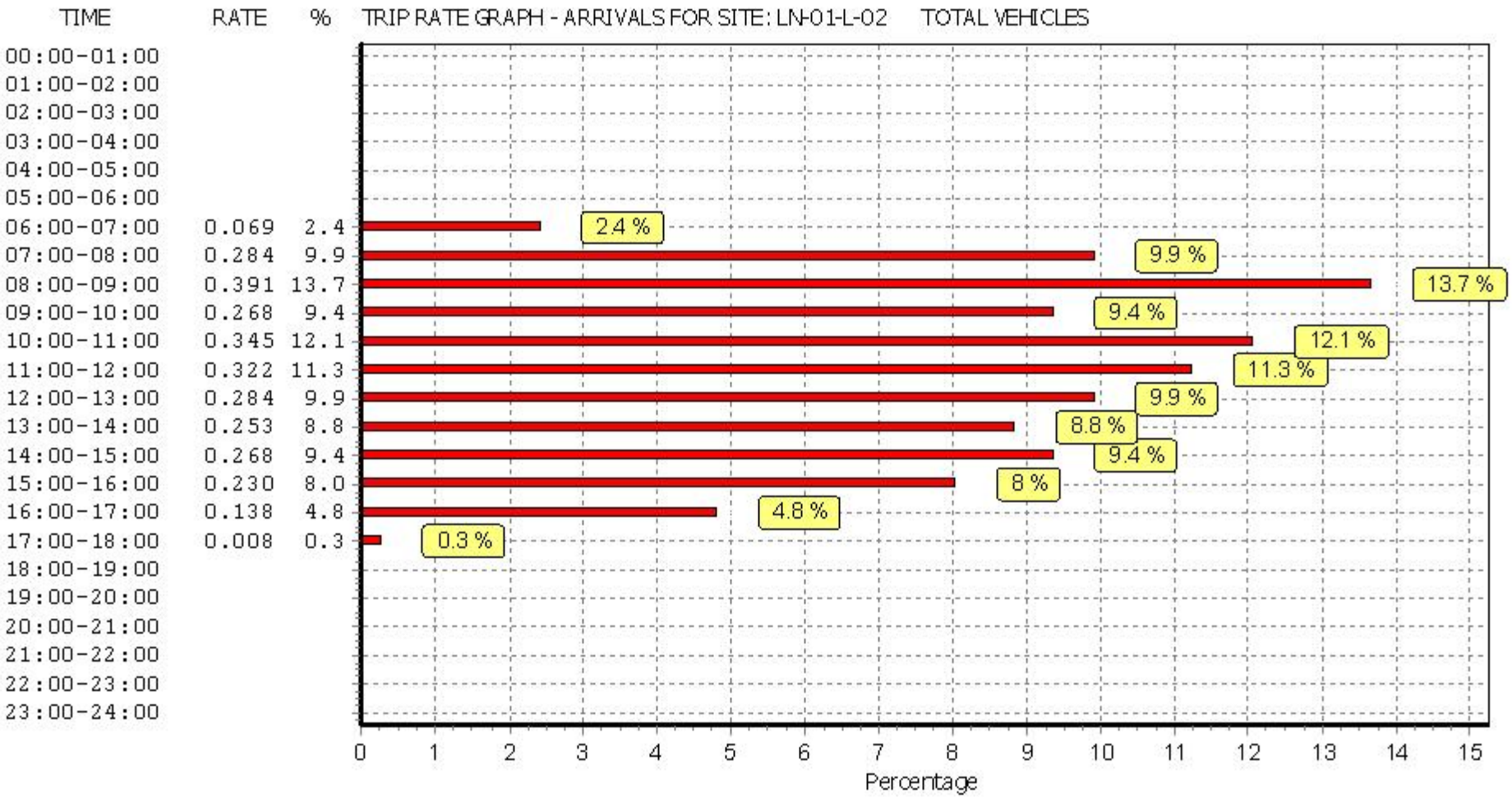
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.*

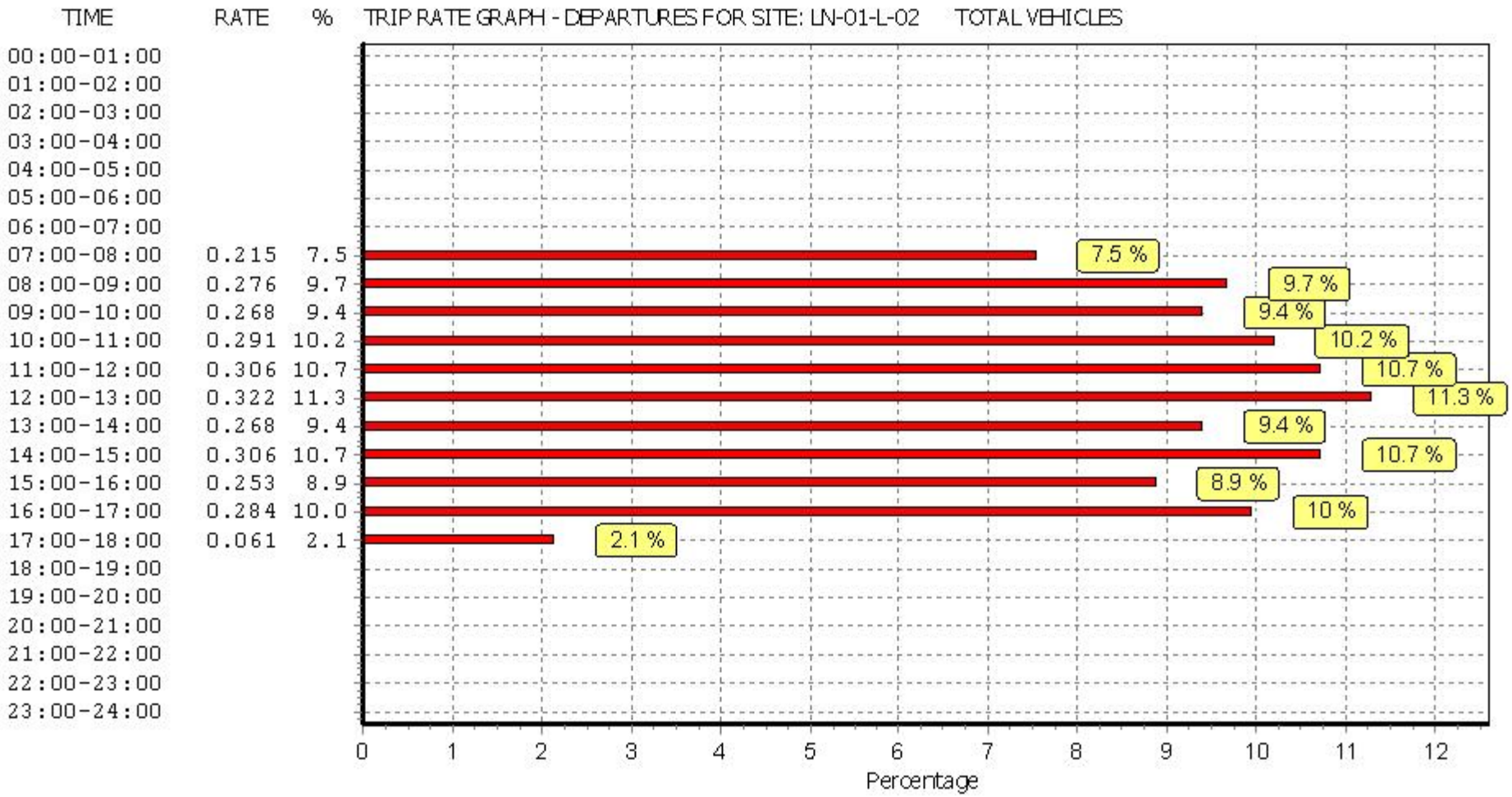
Parameter summary

Trip rate parameter range selected:	13051 - 13051 (units: sqm)
Survey date date range:	01/01/13 - 15/02/20
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

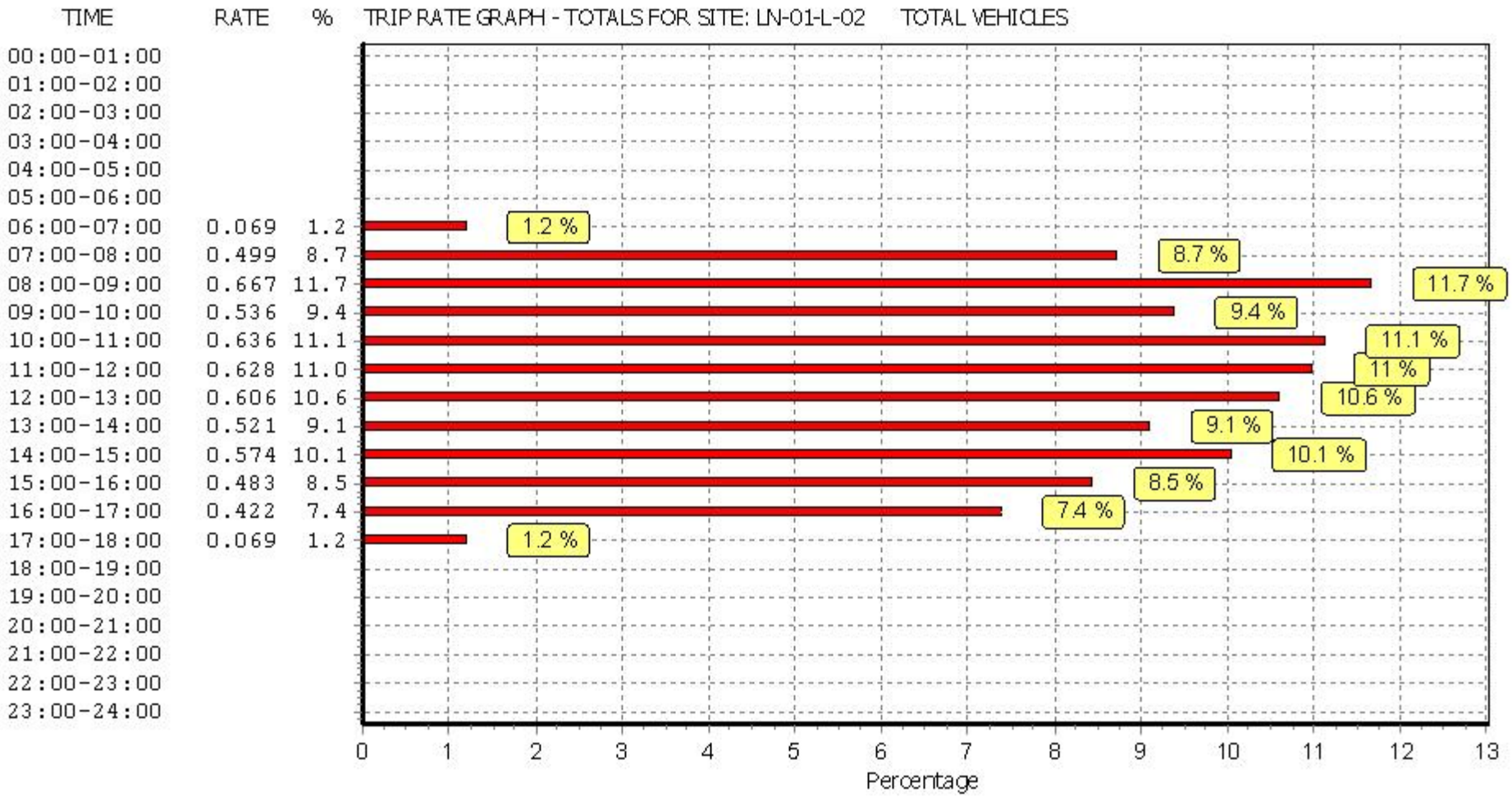
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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.



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.



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.

Calculation Reference: AUDIT-638801-210621-0655

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : C - LEISURE CENTRE
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	EG	EALING	3 days
	HD	HILLINGDON	2 days
	HK	HACKNEY	1 days
	LB	LAMBETH	1 days
	WF	WALTHAM FOREST	1 days
03	SOUTH WEST		
	DV	DEVON	2 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	NT	NOTTINGHAMSHIRE	2 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
	WY	WEST YORKSHIRE	2 days
09	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & WEAR	1 days
11	SCOTLAND		
	EL	EAST LOTHIAN	1 days
12	CONNAUGHT		
	CS	SLIGO	1 days
	LT	LEITRIM	1 days
13	MUNSTER		
	CR	CORK	1 days
	TI	TIPPERARY	1 days
17	ULSTER (NORTHERN IRELAND)		
	AR	ARMAGH	1 days
	DO	DOWN	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	1100 to 12188 (units: sqm)
Range Selected by User:	360 to 19750 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 28/11/19

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

Selected survey days:

Monday	1 days
Tuesday	5 days
Wednesday	10 days
Thursday	6 days
Friday	2 days
Saturday	6 days

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

Selected survey types:

Manual count	30 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	14
Suburban Area (PPS6 Out of Centre)	8
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	14
Retail Zone	1
Built-Up Zone	6
Village	1
Out of Town	1
High Street	1
No Sub Category	6

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

Secondary Filtering selection:

Use Class:

n/a	30 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	13 days
50,001 to 100,000	4 days
100,001 or More	1 days

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

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	5 days
500,001 or More	10 days

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

Car ownership within 5 miles:

0.6 to 1.0	18 days
1.1 to 1.5	11 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	28 days

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

PTAL Rating:

No PTAL Present	22 days
1a (Low) Very poor	1 days
2 Poor	2 days
3 Moderate	1 days
4 Good	3 days
5 Very Good	1 days

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

LIST OF SITES relevant to selection parameters

1 AR-07-C-02 LEISURE CENTRE ARMAGH
FOLLY LANE
ARMAGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 3490 sqm
Survey date: TUESDAY *29/10/13* *Survey Type: MANUAL*

2 CA-07-C-02 LEISURE CENTRE CAMBRIDGESHIRE
BACK LANE
CAMBOURNE

Edge of Town
Residential Zone
Total Gross floor area: 1502 sqm
Survey date: THURSDAY *07/06/18* *Survey Type: MANUAL*

3 CB-07-C-03 SWIMMING & FITNESS CENTRE CUMBRIA
JAMES STREET
CARLISLE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2500 sqm
Survey date: WEDNESDAY *22/06/16* *Survey Type: MANUAL*

4 CR-07-C-02 LEISURE WORLD CORK
ROSSA AVENUE
CORK
BISHOPSTOWN
Edge of Town
No Sub Category
Total Gross floor area: 3450 sqm
Survey date: THURSDAY *19/06/14* *Survey Type: MANUAL*

5 CS-07-C-01 LEISURE CENTRE SLIGO
STATION ROAD
BALLISODARE

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 1100 sqm
Survey date: SATURDAY *25/05/19* *Survey Type: MANUAL*

6 DO-07-C-01 LEISURE CENTRE DOWN
VALENTINE ROAD
BANGOR

Edge of Town Centre
No Sub Category
Total Gross floor area: 10529 sqm
Survey date: WEDNESDAY *21/11/18* *Survey Type: MANUAL*

7 DS-07-C-01 LEISURE CENTRE DERBYSHIRE
CATHEDRAL ROAD
DERBY

Town Centre
Built-Up Zone
Total Gross floor area: 5394 sqm
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

8 DV-07-C-01 LEISURE CENTRE DEVON
COWICK STREET
EXETER

Edge of Town Centre
Retail Zone
Total Gross floor area: 6133 sqm
Survey date: THURSDAY *28/11/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 DV-07-C-02 LEISURE CENTRE DEVON
HEAVITREE ROAD
EXETER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 1450 sqm
Survey date: WEDNESDAY *05/07/17* *Survey Type: MANUAL*

10 EG-07-C-02 LEISURE CENTRE EALING
HIGH STREET
ACTON

Edge of Town Centre
High Street
Total Gross floor area: 2460 sqm
Survey date: SATURDAY *27/06/15* *Survey Type: MANUAL*

11 EG-07-C-03 LEISURE CENTRE EALING
RUISLIP ROAD EAST
PERIVALE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4700 sqm
Survey date: SATURDAY *27/06/15* *Survey Type: MANUAL*

12 EG-07-C-04 LEISURE CENTRE EALING
EASTCOTE LANE NORTH
NORTHOLT

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4500 sqm
Survey date: TUESDAY *30/06/15* *Survey Type: MANUAL*

13 EL-07-C-01 LEISURE CENTRE EAST LOTHIAN
NEWBIGGING
MUSSELBURGH

Edge of Town Centre
No Sub Category
Total Gross floor area: 4125 sqm
Survey date: WEDNESDAY *25/04/18* *Survey Type: MANUAL*

14 HD-07-C-01 LEISURE CENTRE HILLINGDON
HUME WAY
RUISLIP

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4000 sqm
Survey date: FRIDAY *26/06/15* *Survey Type: MANUAL*

15 HD-07-C-03 LEISURE CENTRE HILLINGDON
EAST AVENUE
HAYES

Edge of Town Centre
Residential Zone
Total Gross floor area: 5800 sqm
Survey date: MONDAY *29/06/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

16 HK-07-C-02 LEISURE CENTRE HACKNEY
HYDE ROAD
SHOREDITCH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4627 sqm
Survey date: WEDNESDAY *17/09/14* *Survey Type: MANUAL*

17 LB-07-C-01 LEISURE CENTRE LAMBETH
DEVANE WAY
WEST NORWOOD

Edge of Town Centre
Residential Zone
Total Gross floor area: 5400 sqm
Survey date: WEDNESDAY *07/11/18* *Survey Type: MANUAL*

18 LT-07-C-02 LEISURE CENTRE LEITRIM
ATTIFINLAY
CARRICK-ON-SHANNON
SUMMERHILL
Edge of Town
Residential Zone
Total Gross floor area: 2597 sqm
Survey date: SATURDAY *20/05/17* *Survey Type: MANUAL*

19 NF-07-C-03 LEISURE CENTRE NORFOLK
NORWICH ROAD
WYMONDHAM

Edge of Town Centre
Residential Zone
Total Gross floor area: 4970 sqm
Survey date: SATURDAY *09/11/19* *Survey Type: MANUAL*

20 NF-07-C-04 LEISURE CENTRE NORFOLK
WHERRY ROAD
NORWICH

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2910 sqm
Survey date: THURSDAY *28/11/19* *Survey Type: MANUAL*

21 NT-07-C-04 LEISURE CENTRE NOTTINGHAMSHIRE
GEDLING STREET
NOTTINGHAM

Edge of Town Centre
No Sub Category
Total Gross floor area: 2955 sqm
Survey date: WEDNESDAY *26/06/13* *Survey Type: MANUAL*

22 NT-07-C-05 LEISURE CENTRE NOTTINGHAMSHIRE
DENMAN STREET CENTRAL
NOTTINGHAM
RADFORD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 2210 sqm
Survey date: FRIDAY *02/12/16* *Survey Type: MANUAL*

23 NY-07-C-02 LEISURE CENTRE NORTH YORKSHIRE
GARGRAVE ROAD
SKIPTON

Edge of Town
Out of Town
Total Gross floor area: 2530 sqm
Survey date: SATURDAY *09/03/19* *Survey Type: MANUAL*

24 TI-07-C-02 LEISURE CENTRE TIPPERARY
DUBLIN ROAD
NENAGH

Edge of Town
No Sub Category
Total Gross floor area: 2980 sqm
Survey date: THURSDAY *26/05/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

25 TW-07-C-03 LEISURE CENTRE TYNE & WEAR
ALEXANDRA ROAD
GATESHEAD
MOUNT PLEASANT
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 12188 sqm
Survey date: WEDNESDAY *01/05/19* *Survey Type: MANUAL*

26 WF-07-C-02 LEISURE CENTRE WALTHAM FOREST
CHINGFORD ROAD
WALTHAMSTOW

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 8460 sqm
Survey date: TUESDAY *05/11/19* *Survey Type: MANUAL*

27 WL-07-C-01 LEISURE CENTRE WILTSHIRE
NORTH STAR AVENUE
SWINDON

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 9600 sqm
Survey date: WEDNESDAY *21/09/16* *Survey Type: MANUAL*

28 WM-07-C-02 LEISURE CENTRE WEST MIDLANDS
BEECHES ROAD
BIRMINGHAM

Edge of Town
Residential Zone
Total Gross floor area: 2600 sqm
Survey date: THURSDAY *26/09/19* *Survey Type: MANUAL*

29 WY-07-C-01 LEISURE CENTRE WEST YORKSHIRE
QUARRY HILL
LEEDS

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 4060 sqm
Survey date: TUESDAY *24/09/13* *Survey Type: MANUAL*

30 WY-07-C-02 LEISURE CENTRE WEST YORKSHIRE
LODGE LANE
WETHERBY

Edge of Town Centre
No Sub Category
Total Gross floor area: 2182 sqm
Survey date: TUESDAY *20/09/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 07 - LEISURE/C - LEISURE CENTRE
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 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	6715	0.119	2	6715	0.052	2	6715	0.171
06:00 - 07:00	22	4957	0.352	22	4957	0.056	22	4957	0.408
07:00 - 08:00	27	4508	0.459	27	4508	0.292	27	4508	0.751
08:00 - 09:00	30	4380	0.670	30	4380	0.428	30	4380	1.098
09:00 - 10:00	30	4380	0.935	30	4380	0.626	30	4380	1.561
10:00 - 11:00	30	4380	0.853	30	4380	0.750	30	4380	1.603
11:00 - 12:00	30	4380	0.683	30	4380	0.733	30	4380	1.416
12:00 - 13:00	30	4380	0.590	30	4380	0.725	30	4380	1.315
13:00 - 14:00	30	4380	0.528	30	4380	0.597	30	4380	1.125
14:00 - 15:00	30	4380	0.544	30	4380	0.547	30	4380	1.091
15:00 - 16:00	30	4380	0.766	30	4380	0.568	30	4380	1.334
16:00 - 17:00	30	4380	0.975	30	4380	0.830	30	4380	1.805
17:00 - 18:00	29	4444	1.093	29	4444	1.065	29	4444	2.158
18:00 - 19:00	29	4444	1.114	29	4444	1.068	29	4444	2.182
19:00 - 20:00	29	4444	0.777	29	4444	0.982	29	4444	1.759
20:00 - 21:00	27	4641	0.414	27	4641	0.893	27	4641	1.307
21:00 - 22:00	25	4764	0.128	25	4764	0.583	25	4764	0.711
22:00 - 23:00	9	5112	0.020	9	5112	0.148	9	5112	0.168
23:00 - 24:00									
Total Rates:			11.020			10.943			21.963

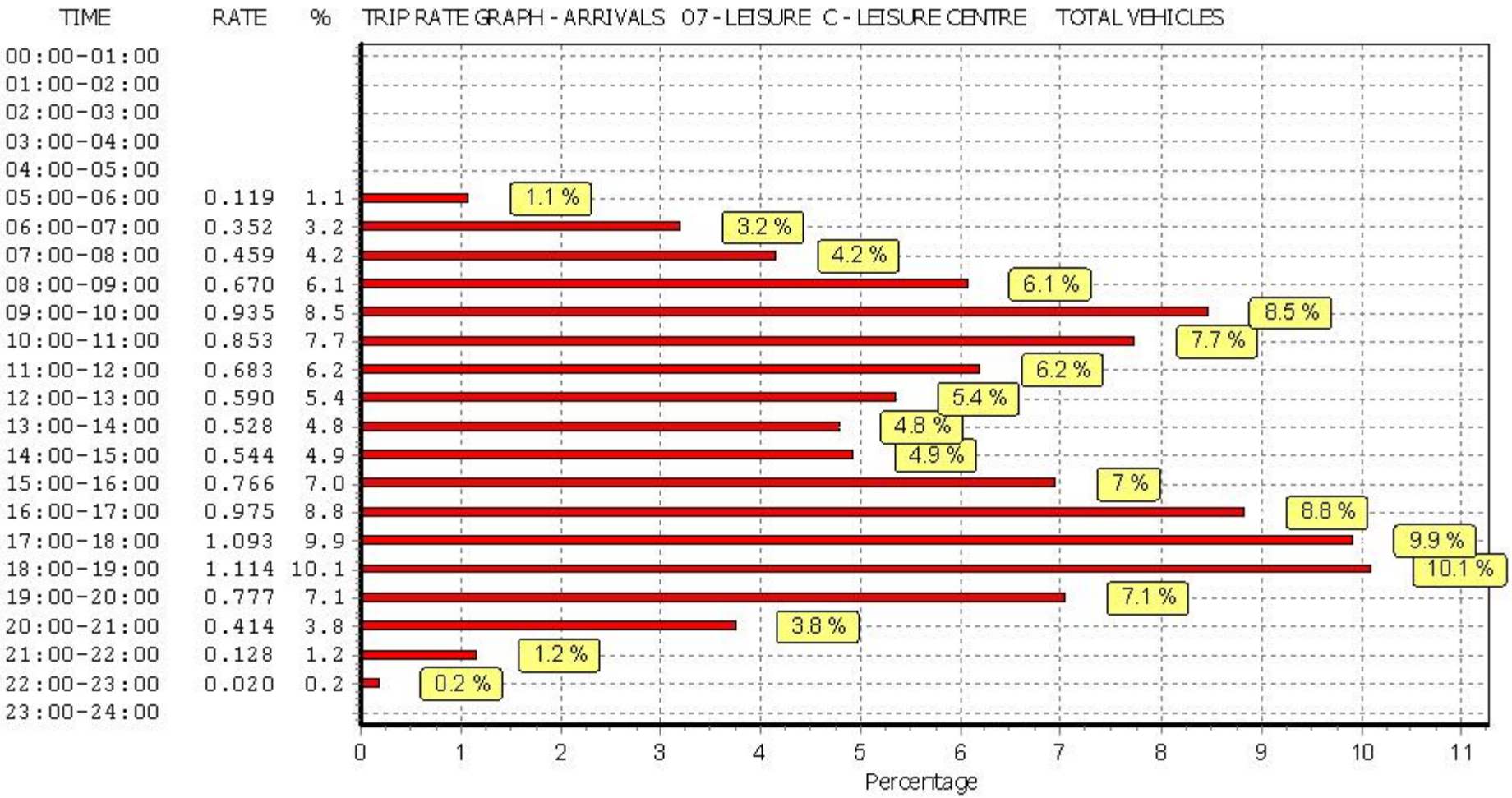
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.*

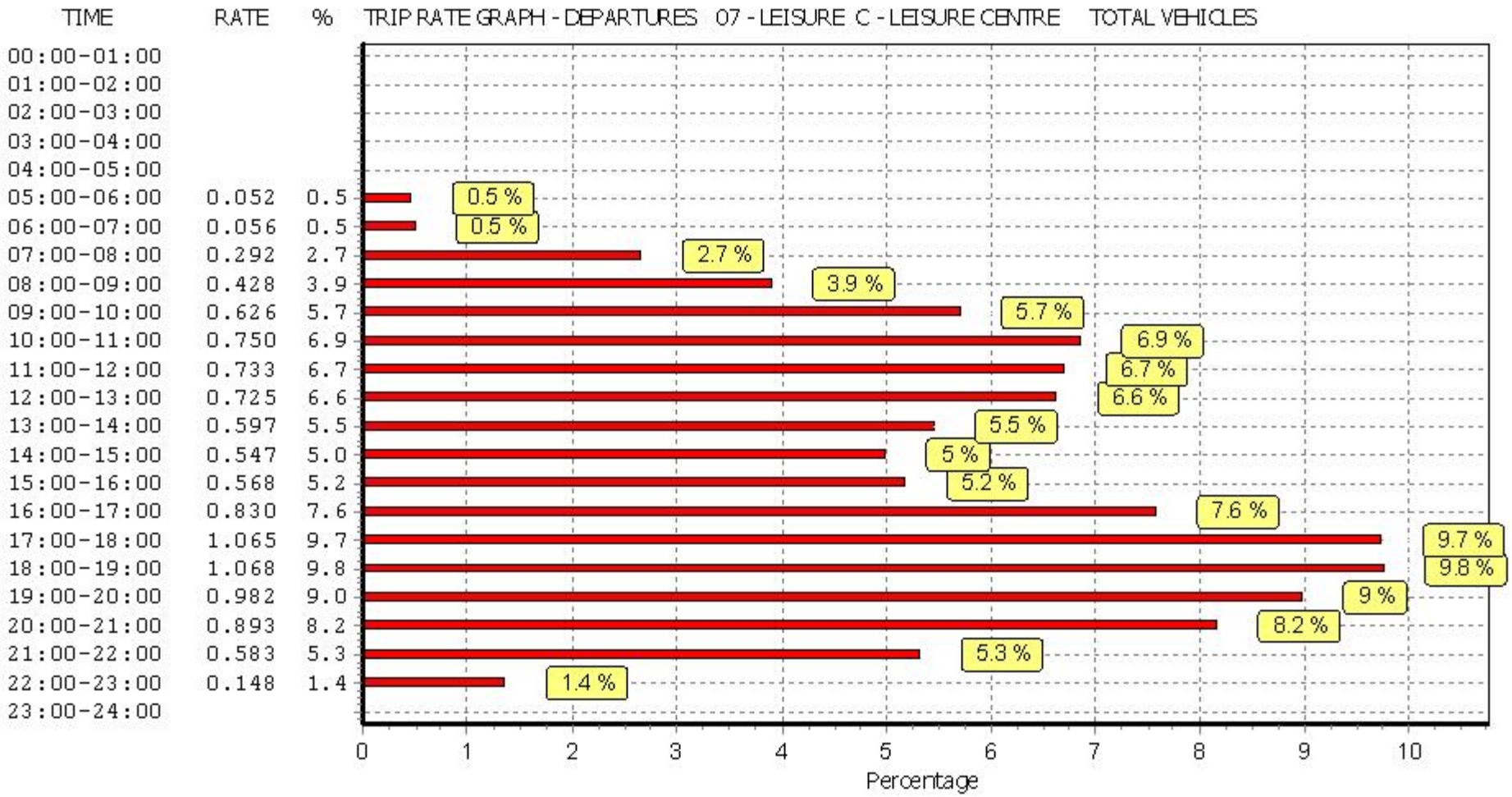
Parameter summary

Trip rate parameter range selected:	1100 - 12188 (units: sqm)
Survey date date range:	01/01/13 - 28/11/19
Number of weekdays (Monday-Friday):	24
Number of Saturdays:	6
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

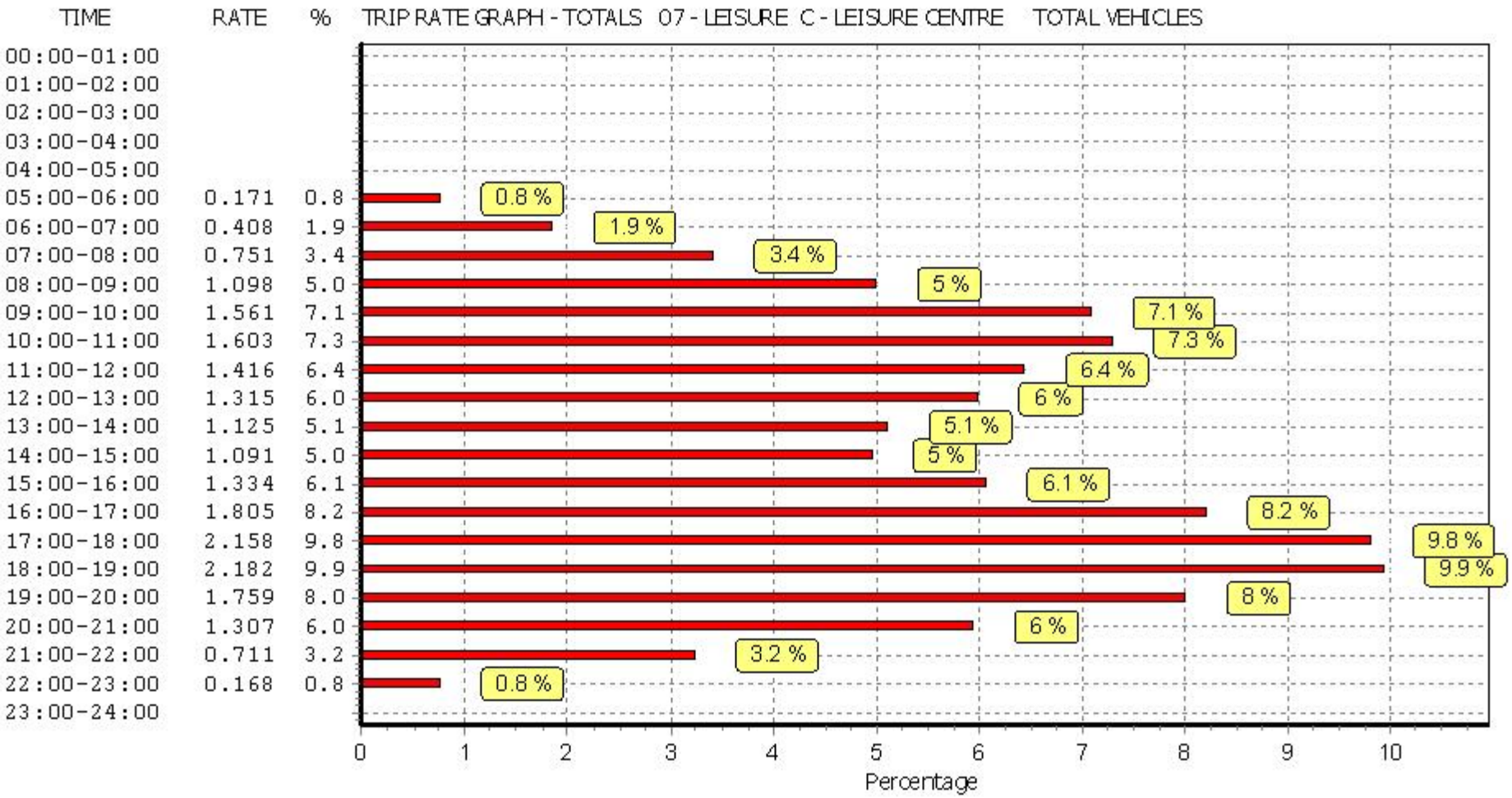
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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.



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.



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.

Calculation Reference: AUDIT-638801-210621-0617

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : C - LEISURE CENTRE
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	EG	EALING	3 days
	HD	HILLINGDON	2 days
	HK	HACKNEY	1 days
	LB	LAMBETH	1 days
	WF	WALTHAM FOREST	1 days
03	SOUTH WEST		
	DV	DEVON	2 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
05	EAST MIDLANDS		
	NT	NOTTINGHAMSHIRE	2 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
	WY	WEST YORKSHIRE	2 days
09	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & WEAR	1 days
11	SCOTLAND		
	EL	EAST LOTHIAN	1 days
12	CONNAUGHT		
	CS	SLIGO	1 days
	LT	LEITRIM	1 days
13	MUNSTER		
	CR	CORK	1 days
	TI	TIPPERARY	1 days
17	ULSTER (NORTHERN IRELAND)		
	AR	ARMAGH	1 days
	DO	DOWN	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	1100 to 12188 (units: sqm)
Range Selected by User:	360 to 19750 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 28/11/19

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

Selected survey days:

Monday	1 days
Tuesday	5 days
Wednesday	9 days
Thursday	6 days
Friday	2 days
Saturday	6 days

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

Selected survey types:

Manual count	29 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	14
Suburban Area (PPS6 Out of Centre)	8
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	14
Retail Zone	1
Built-Up Zone	5
Village	1
Out of Town	1
High Street	1
No Sub Category	6

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

Secondary Filtering selection:

Use Class:

n/a	29 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	12 days
50,001 to 100,000	4 days
100,001 or More	1 days

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

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	4 days
500,001 or More	10 days

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

Car ownership within 5 miles:

0.6 to 1.0	18 days
1.1 to 1.5	10 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	27 days

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

PTAL Rating:

No PTAL Present	21 days
1a (Low) Very poor	1 days
2 Poor	2 days
3 Moderate	1 days
4 Good	3 days
5 Very Good	1 days

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

LIST OF SITES relevant to selection parameters

1 AR-07-C-02 LEISURE CENTRE ARMAGH
FOLLY LANE
ARMAGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 3490 sqm
Survey date: TUESDAY *29/10/13* *Survey Type: MANUAL*

2 CA-07-C-02 LEISURE CENTRE CAMBRIDGESHIRE
BACK LANE
CAMBOURNE

Edge of Town
Residential Zone
Total Gross floor area: 1502 sqm
Survey date: THURSDAY *07/06/18* *Survey Type: MANUAL*

3 CB-07-C-03 SWIMMING & FITNESS CENTRE CUMBRIA
JAMES STREET
CARLISLE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2500 sqm
Survey date: WEDNESDAY *22/06/16* *Survey Type: MANUAL*

4 CR-07-C-02 LEISURE WORLD CORK
ROSSA AVENUE
CORK
BISHOPSTOWN
Edge of Town
No Sub Category
Total Gross floor area: 3450 sqm
Survey date: THURSDAY *19/06/14* *Survey Type: MANUAL*

5 CS-07-C-01 LEISURE CENTRE SLIGO
STATION ROAD
BALLISODARE

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 1100 sqm
Survey date: SATURDAY *25/05/19* *Survey Type: MANUAL*

6 DO-07-C-01 LEISURE CENTRE DOWN
VALENTINE ROAD
BANGOR

Edge of Town Centre
No Sub Category
Total Gross floor area: 10529 sqm
Survey date: WEDNESDAY *21/11/18* *Survey Type: MANUAL*

7 DV-07-C-01 LEISURE CENTRE DEVON
COWICK STREET
EXETER

Edge of Town Centre
Retail Zone
Total Gross floor area: 6133 sqm
Survey date: THURSDAY *28/11/13* *Survey Type: MANUAL*

8 DV-07-C-02 LEISURE CENTRE DEVON
HEAVITREE ROAD
EXETER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 1450 sqm
Survey date: WEDNESDAY *05/07/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 EG-07-C-02 LEISURE CENTRE EALING
HIGH STREET
ACTON

Edge of Town Centre
High Street
Total Gross floor area: 2460 sqm
Survey date: SATURDAY *27/06/15* *Survey Type: MANUAL*

10 EG-07-C-03 LEISURE CENTRE EALING
RUISLIP ROAD EAST
PERIVALE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4700 sqm
Survey date: SATURDAY *27/06/15* *Survey Type: MANUAL*

11 EG-07-C-04 LEISURE CENTRE EALING
EASTCOTE LANE NORTH
NORTHOLT

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4500 sqm
Survey date: TUESDAY *30/06/15* *Survey Type: MANUAL*

12 EL-07-C-01 LEISURE CENTRE EAST LOTHIAN
NEWBIGGING
MUSSELBURGH

Edge of Town Centre
No Sub Category
Total Gross floor area: 4125 sqm
Survey date: WEDNESDAY *25/04/18* *Survey Type: MANUAL*

13 HD-07-C-01 LEISURE CENTRE HILLINGDON
HUME WAY
RUISLIP

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4000 sqm
Survey date: FRIDAY *26/06/15* *Survey Type: MANUAL*

14 HD-07-C-03 LEISURE CENTRE HILLINGDON
EAST AVENUE
HAYES

Edge of Town Centre
Residential Zone
Total Gross floor area: 5800 sqm
Survey date: MONDAY *29/06/15* *Survey Type: MANUAL*

15 HK-07-C-02 LEISURE CENTRE HACKNEY
HYDE ROAD
SHOREDITCH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4627 sqm
Survey date: WEDNESDAY *17/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

16 LB-07-C-01 LEISURE CENTRE LAMBETH
DEVANE WAY
WEST NORWOOD

Edge of Town Centre
Residential Zone
Total Gross floor area: 5400 sqm
Survey date: WEDNESDAY *07/11/18* *Survey Type: MANUAL*

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ATTIFINLAY
CARRICK-ON-SHANNON
SUMMERHILL
Edge of Town
Residential Zone
Total Gross floor area: 2597 sqm
Survey date: SATURDAY *20/05/17* *Survey Type: MANUAL*

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NORWICH ROAD
WYMONDHAM

Edge of Town Centre
Residential Zone
Total Gross floor area: 4970 sqm
Survey date: SATURDAY *09/11/19* *Survey Type: MANUAL*

19 NF-07-C-04 LEISURE CENTRE NORFOLK
WHERRY ROAD
NORWICH

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2910 sqm
Survey date: THURSDAY *28/11/19* *Survey Type: MANUAL*

20 NT-07-C-04 LEISURE CENTRE NOTTINGHAMSHIRE
GEDLING STREET
NOTTINGHAM

Edge of Town Centre
No Sub Category
Total Gross floor area: 2955 sqm
Survey date: WEDNESDAY *26/06/13* *Survey Type: MANUAL*

21 NT-07-C-05 LEISURE CENTRE NOTTINGHAMSHIRE
DENMAN STREET CENTRAL
NOTTINGHAM
RADFORD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 2210 sqm
Survey date: FRIDAY *02/12/16* *Survey Type: MANUAL*

22 NY-07-C-02 LEISURE CENTRE NORTH YORKSHIRE
GARGRAVE ROAD
SKIPTON

Edge of Town
Out of Town
Total Gross floor area: 2530 sqm
Survey date: SATURDAY *09/03/19* *Survey Type: MANUAL*

23 TI-07-C-02 LEISURE CENTRE TIPPERARY
DUBLIN ROAD
NENAGH

Edge of Town
No Sub Category
Total Gross floor area: 2980 sqm
Survey date: THURSDAY *26/05/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

24	TW-07-C-03	LEISURE CENTRE		TYNE & WEAR
	ALEXANDRA ROAD			
	GATESHEAD			
	MOUNT PLEASANT			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		12188 sqm	
	Survey date: WEDNESDAY		*01/05/19*	*Survey Type: MANUAL*
25	WF-07-C-02	LEISURE CENTRE		WALTHAM FOREST
	CHINGFORD ROAD			
	WALTHAMSTOW			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		8460 sqm	
	Survey date: TUESDAY		*05/11/19*	*Survey Type: MANUAL*
26	WL-07-C-01	LEISURE CENTRE		WILTSHIRE
	NORTH STAR AVENUE			
	SWINDON			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:		9600 sqm	
	Survey date: WEDNESDAY		*21/09/16*	*Survey Type: MANUAL*
27	WM-07-C-02	LEISURE CENTRE		WEST MIDLANDS
	BEECHES ROAD			
	BIRMINGHAM			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		2600 sqm	
	Survey date: THURSDAY		*26/09/19*	*Survey Type: MANUAL*
28	WY-07-C-01	LEISURE CENTRE		WEST YORKSHIRE
	QUARRY HILL			
	LEEDS			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:		4060 sqm	
	Survey date: TUESDAY		*24/09/13*	*Survey Type: MANUAL*
29	WY-07-C-02	LEISURE CENTRE		WEST YORKSHIRE
	LODGE LANE			
	WETHERBY			
	Edge of Town Centre			
	No Sub Category			
	Total Gross floor area:		2182 sqm	
	Survey date: TUESDAY		*20/09/16*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 07 - LEISURE/C - LEISURE CENTRE
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 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	6715	0.119	2	6715	0.052	2	6715	0.171
06:00 - 07:00	21	4936	0.367	21	4936	0.058	21	4936	0.425
07:00 - 08:00	26	4474	0.473	26	4474	0.294	26	4474	0.767
08:00 - 09:00	29	4345	0.691	29	4345	0.440	29	4345	1.131
09:00 - 10:00	29	4345	0.950	29	4345	0.640	29	4345	1.590
10:00 - 11:00	29	4345	0.861	29	4345	0.753	29	4345	1.614
11:00 - 12:00	29	4345	0.700	29	4345	0.739	29	4345	1.439
12:00 - 13:00	29	4345	0.605	29	4345	0.741	29	4345	1.346
13:00 - 14:00	29	4345	0.536	29	4345	0.614	29	4345	1.150
14:00 - 15:00	29	4345	0.561	29	4345	0.563	29	4345	1.124
15:00 - 16:00	29	4345	0.779	29	4345	0.590	29	4345	1.369
16:00 - 17:00	29	4345	0.992	29	4345	0.849	29	4345	1.841
17:00 - 18:00	28	4410	1.110	28	4410	1.070	28	4410	2.180
18:00 - 19:00	28	4410	1.139	28	4410	1.097	28	4410	2.236
19:00 - 20:00	28	4410	0.786	28	4410	0.997	28	4410	1.783
20:00 - 21:00	26	4612	0.430	26	4612	0.918	26	4612	1.348
21:00 - 22:00	24	4738	0.134	24	4738	0.603	24	4738	0.737
22:00 - 23:00	8	5077	0.022	8	5077	0.165	8	5077	0.187
23:00 - 24:00									
Total Rates:			11.255			11.183			22.438

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.*

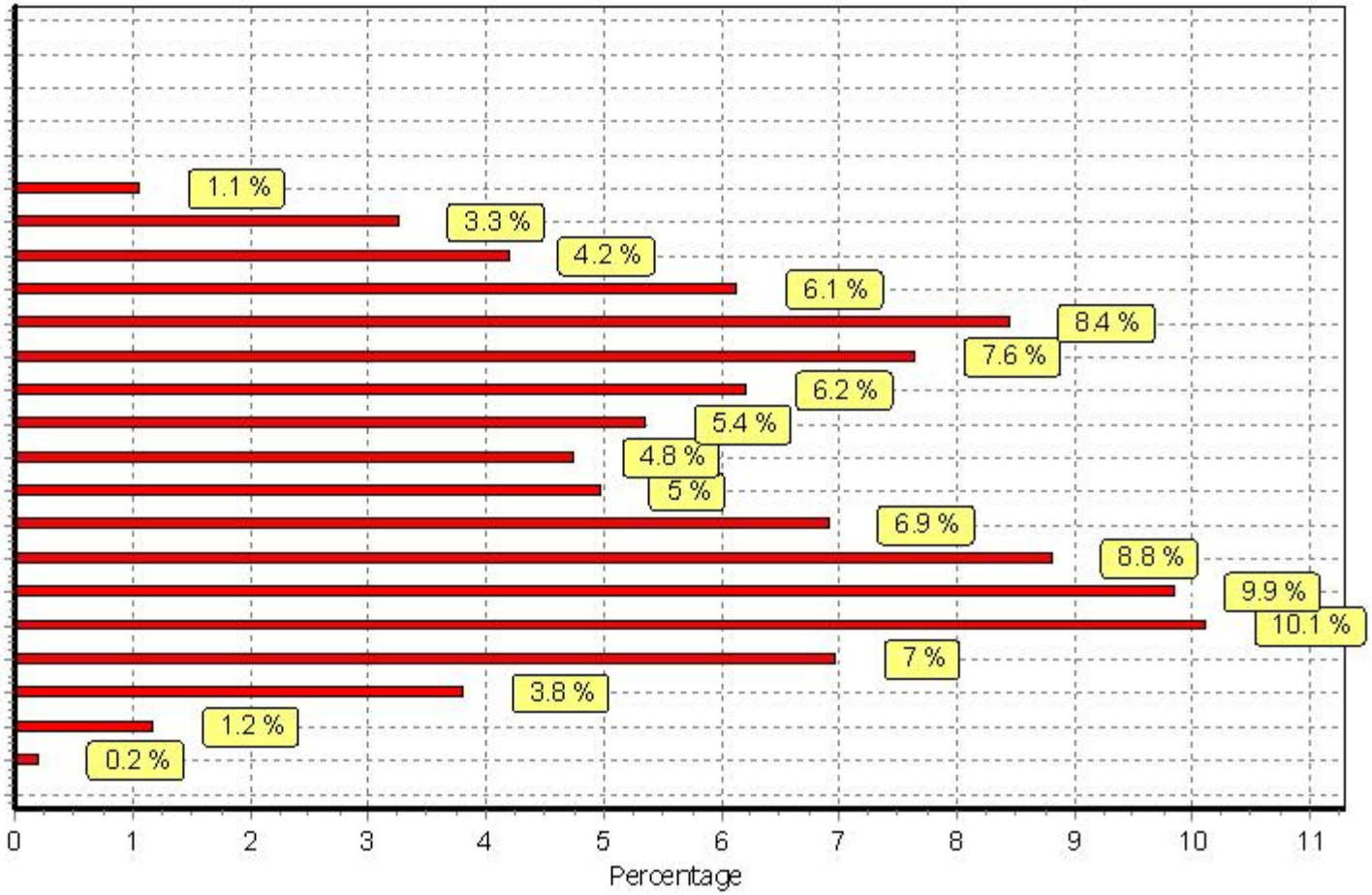
Parameter summary

Trip rate parameter range selected:	1100 - 12188 (units: sqm)
Survey date date range:	01/01/13 - 28/11/19
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	6
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

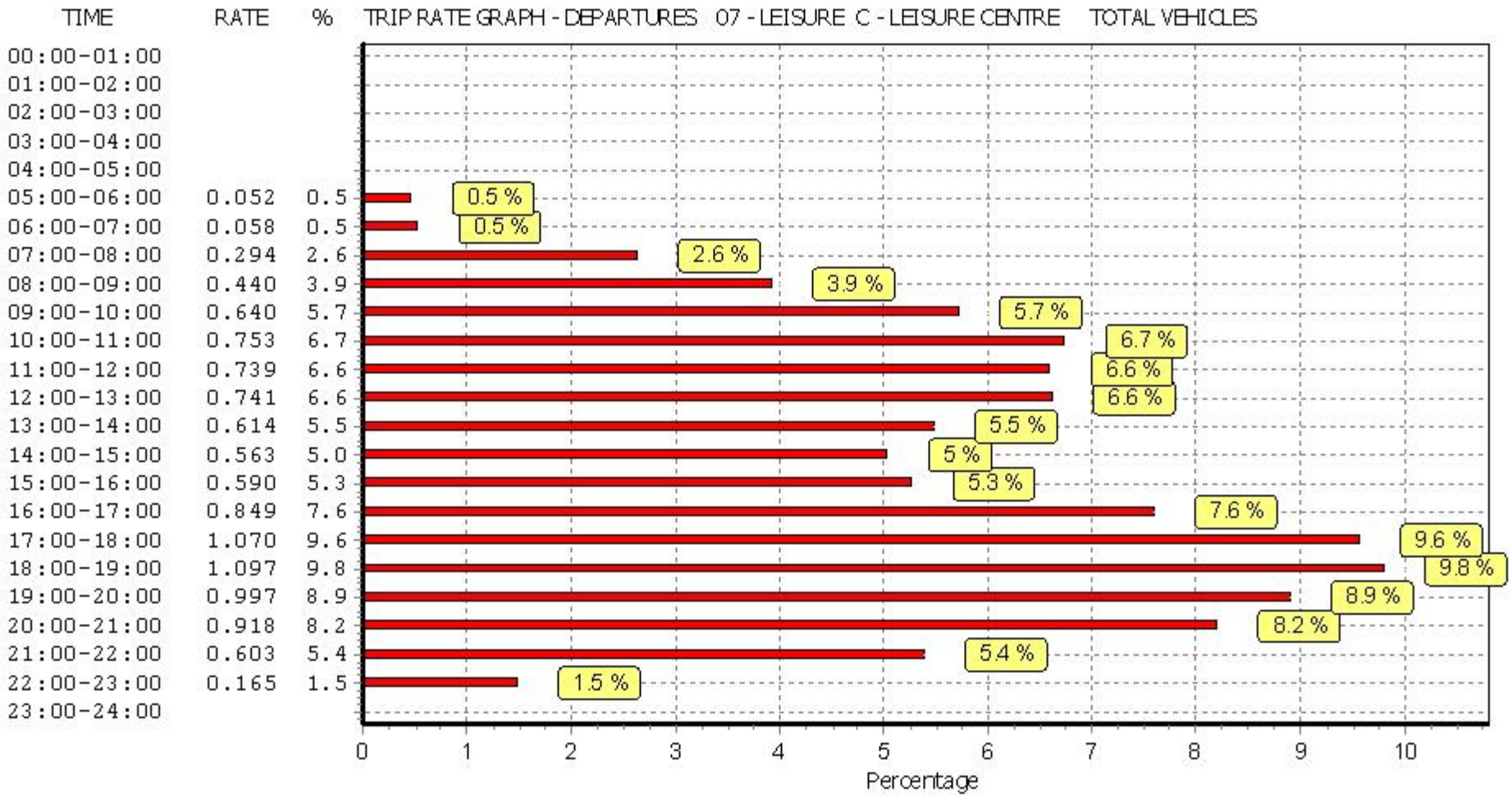
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

TRIP RATE GRAPH - ARRIVALS 07 - LEISURE C - LEISURE CENTRE TOTAL VEHICLES

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	0.119	1.1
06:00-07:00	0.367	3.3
07:00-08:00	0.473	4.2
08:00-09:00	0.691	6.1
09:00-10:00	0.950	8.4
10:00-11:00	0.861	7.6
11:00-12:00	0.700	6.2
12:00-13:00	0.605	5.4
13:00-14:00	0.536	4.8
14:00-15:00	0.561	5.0
15:00-16:00	0.779	6.9
16:00-17:00	0.992	8.8
17:00-18:00	1.110	9.9
18:00-19:00	1.139	10.1
19:00-20:00	0.786	7.0
20:00-21:00	0.430	3.8
21:00-22:00	0.134	1.2
22:00-23:00	0.022	0.2
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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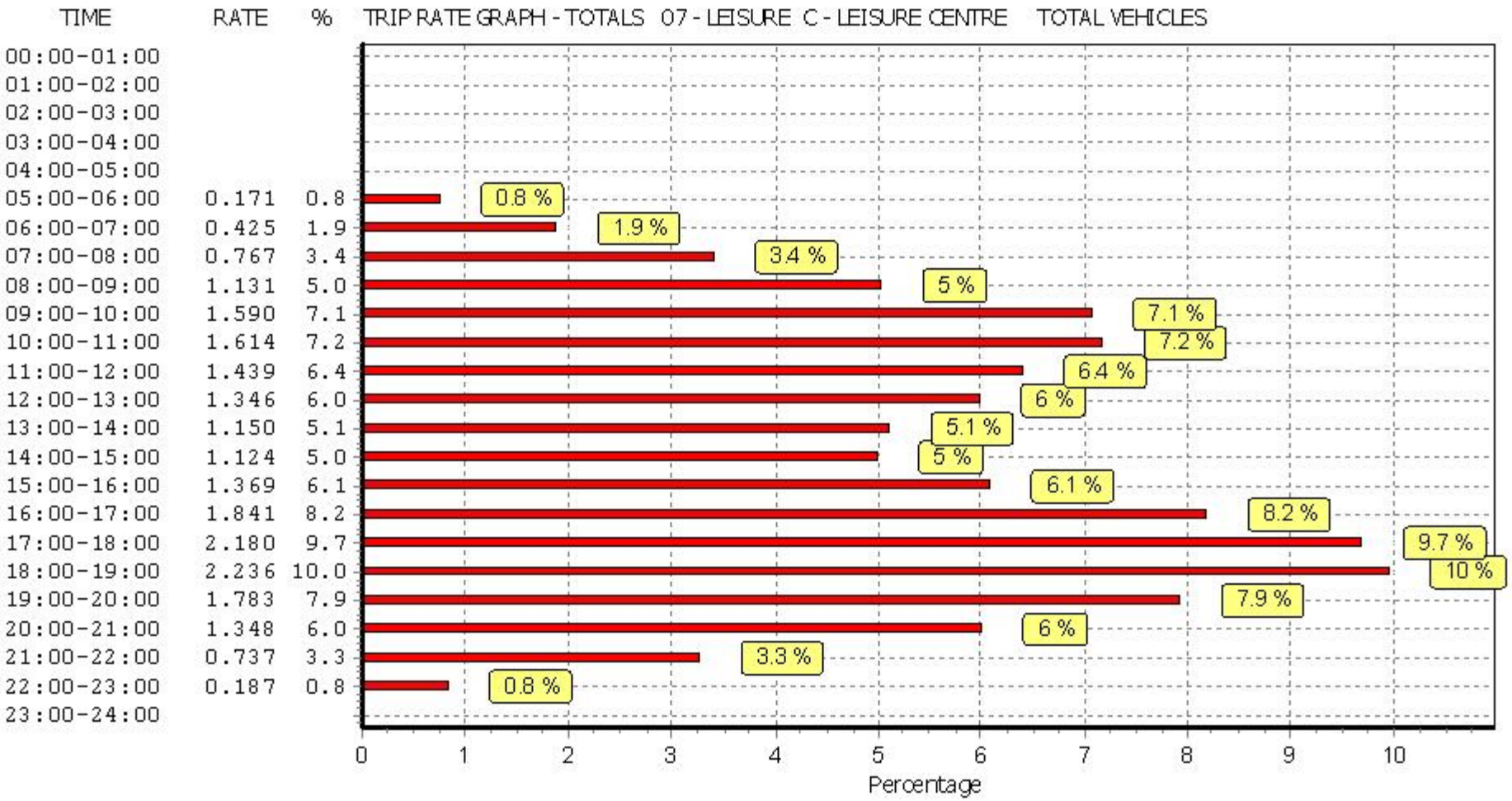


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

Calculation Reference: AUDIT-638801-210621-0619

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BT	BRENT	2 days
	HD	HILLINGDON	1 days
	HO	HOUNSLOW	1 days
	KN	KENSINGTON AND CHELSEA	1 days
	LB	LAMBETH	1 days
	TH	TOWER HAMLETS	1 days
	WH	WANDSWORTH	1 days
02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
	ES	EAST SUSSEX	3 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	2 days
	SO	SLOUGH	1 days
03	SOUTH WEST		
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	LE	LEICESTERSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	2 days
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	1 days
	MS	MERSEYSIDE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
	DH	DURHAM	1 days
	TV	TEES VALLEY	1 days
	TW	TYNE & WEAR	1 days
10	WALES		
	CO	CONWY	1 days
	MT	MERTHYR TYDFIL	1 days
	PS	POWYS	1 days
	SW	SWANSEA	2 days
11	SCOTLAND		
	DU	DUNDEE CITY	1 days
	SR	STIRLING	1 days
12	CONNAUGHT		
	RO	ROSCOMMON	1 days
13	MUNSTER		
	CR	CORK	1 days
14	LEINSTER		
	LU	LOUTH	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	3 days
16	ULSTER (REPUBLIC OF IRELAND)		
	MG	MONAGHAN	1 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	2 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	178 to 120000 (units: sqm)
Range Selected by User:	178 to 175000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 09/11/20

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

Selected survey days:

Monday	10 days
Tuesday	15 days
Wednesday	12 days
Thursday	12 days
Friday	5 days
Saturday	1 days

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

Selected survey types:

Manual count	55 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	26
Suburban Area (PPS6 Out of Centre)	9
Edge of Town	13
Neighbourhood Centre (PPS6 Local Centre)	7

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

Selected Location Sub Categories:

Industrial Zone	3
Commercial Zone	9
Development Zone	6
Residential Zone	8
Built-Up Zone	14
Village	1
Out of Town	1
High Street	2
No Sub Category	11

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

Secondary Filtering selection:

Use Class:

Not Known	55 days

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

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	5 days
5,001 to 10,000	8 days
10,001 to 15,000	7 days
15,001 to 20,000	5 days
20,001 to 25,000	3 days
25,001 to 50,000	19 days
50,001 to 100,000	4 days
100,001 or More	3 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	6 days
50,001 to 75,000	2 days
75,001 to 100,000	5 days
100,001 to 125,000	3 days
125,001 to 250,000	17 days
250,001 to 500,000	6 days
500,001 or More	13 days

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

Car ownership within 5 miles:

0.5 or Less	3 days
0.6 to 1.0	27 days
1.1 to 1.5	22 days
1.6 to 2.0	3 days

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

Travel Plan:

Yes	10 days
No	45 days

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

PTAL Rating:

No PTAL Present	47 days
1b Very poor	1 days
4 Good	2 days
5 Very Good	2 days
6a Excellent	1 days
6b (High) Excellent	2 days

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

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

LIST OF SITES relevant to selection parameters

1 AN-02-A-05 OFFICES ANTRIM
LISBURN ROAD
BELFAST
BALMORAL
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 270 sqm
Survey date: TUESDAY *11/10/16* *Survey Type: MANUAL*

2 AN-02-A-06 SPORTS ADMINISTRATION ANTRIM
UPPER MALONE ROAD
BELFAST

Edge of Town
Residential Zone
Total Gross floor area: 2217 sqm
Survey date: TUESDAY *20/11/18* *Survey Type: MANUAL*

3 BD-02-A-03 OFFICES BEDFORDSHIRE
BROMHAM ROAD
BEDFORD

Edge of Town Centre
No Sub Category
Total Gross floor area: 1469 sqm
Survey date: MONDAY *14/10/13* *Survey Type: MANUAL*

4 BT-02-A-03 OFFICES BRENT
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 920 sqm
Survey date: WEDNESDAY *03/06/15* *Survey Type: MANUAL*

5 BT-02-A-04 OFFICES BRENT
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 10625 sqm
Survey date: SATURDAY *16/05/15* *Survey Type: MANUAL*

6 CA-02-A-06 OFFICES CAMBRIDGESHIRE
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Gross floor area: 4040 sqm
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

7 CB-02-A-02 OFFICE CUMBRIA
PORT ROAD
CARLISLE

Edge of Town Centre
Industrial Zone
Total Gross floor area: 925 sqm
Survey date: FRIDAY *24/06/16* *Survey Type: MANUAL*

8 CO-02-A-01 GOVERNMENT OFFICES CONWY
NARROW LANE
LLANDUDNO JUNCTION

Edge of Town
Commercial Zone
Total Gross floor area: 6186 sqm
Survey date: WEDNESDAY *28/03/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 CR-02-A-01 STATISTICS OFFICES CORK
MAHON CRESCENT
CORK

Edge of Town
No Sub Category
Total Gross floor area: 8600 sqm
Survey date: MONDAY 23/06/14 *Survey Type: MANUAL*

10 DH-02-A-03 ENGINEERING COMPANY DURHAM
ALDERMAN BEST WAY
DARLINGTON

Edge of Town
No Sub Category
Total Gross floor area: 3530 sqm
Survey date: THURSDAY 18/10/18 *Survey Type: MANUAL*

11 DL-02-A-05 OFFICE DUBLIN
GORT MUIRE
DUBLIN
BALLINTEER
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 12474 sqm
Survey date: TUESDAY 10/09/13 *Survey Type: MANUAL*

12 DL-02-A-06 OFFICE DUBLIN
CLONSKEAGH ROAD
DUBLIN
CLONSKEAGH
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 557 sqm
Survey date: THURSDAY 12/09/13 *Survey Type: MANUAL*

13 DL-02-A-07 OFFICES DUBLIN
BELGARD SQUARE EAST
DUBLIN
TALLAGHT
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 3230 sqm
Survey date: WEDNESDAY 20/06/18 *Survey Type: MANUAL*

14 DS-02-A-01 REAL ESTATE DEVELOPERS DERBYSHIRE
PRIME PARK WAY
DERBY

Edge of Town Centre
No Sub Category
Total Gross floor area: 594 sqm
Survey date: WEDNESDAY 25/09/19 *Survey Type: MANUAL*

15 DU-02-A-01 OFFICES DUNDEE CITY
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Gross floor area: 3200 sqm
Survey date: THURSDAY 27/04/17 *Survey Type: MANUAL*

16 ES-02-A-11 HOUSING COMPANY EAST SUSSEX
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 186 sqm
Survey date: TUESDAY 17/11/15 *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 ES-02-A-12 COUNCIL OFFICES EAST SUSSEX
VICARAGE LANE
HAILSHAM

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3640 sqm
Survey date: THURSDAY *26/11/15* *Survey Type: MANUAL*

18 ES-02-A-13 OFFICES EAST SUSSEX
ROMAN ROAD
HOVE

Edge of Town Centre
Residential Zone
Total Gross floor area: 280 sqm
Survey date: WEDNESDAY *04/07/18* *Survey Type: MANUAL*

19 GM-02-A-09 LEASED OFFICES GREATER MANCHESTER
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2500 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

20 HC-02-A-12 HMRC HAMPSHIRE
NORTHERN ROAD
PORTSMOUTH
COSHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 10100 sqm
Survey date: MONDAY *23/11/15* *Survey Type: MANUAL*

21 HD-02-A-09 DATA CENTRE HILLINGDON
MILLINGTON ROAD
HAYES

Edge of Town Centre
Commercial Zone
Total Gross floor area: 12100 sqm
Survey date: TUESDAY *26/06/18* *Survey Type: MANUAL*

22 HF-02-A-03 OFFICE HERTFORDSHIRE
60 VICTORIA STREET
ST ALBANS

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 610 sqm
Survey date: WEDNESDAY *16/10/13* *Survey Type: MANUAL*

23 HF-02-A-04 OFFICES HERTFORDSHIRE
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Gross floor area: 5000 sqm
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

24 HO-02-A-01 SKY HEADQUARTERS HOUNSLOW
SYON LANE
ISLEWORTH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 120000 sqm
Survey date: WEDNESDAY 05/07/17 Survey Type: MANUAL

25 KN-02-A-01 FRUIT DRINKS COMPANY KENSINGTON AND CHELSEA
LADBROKE GROVE
KENSAL GREEN

Neighbourhood Centre (PPS6 Local Centre)
Built-Up Zone
Total Gross floor area: 2255 sqm
Survey date: MONDAY 17/06/19 Survey Type: MANUAL

26 LB-02-A-01 START UP OFFICES & STUDIOS LAMBETH
DURHAM STREET
VAUXHALL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 10200 sqm
Survey date: MONDAY 19/11/18 Survey Type: MANUAL

27 LC-02-A-09 OFFICES LANCASHIRE
FURTHERGATE
BLACKBURN

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 2600 sqm
Survey date: TUESDAY 04/06/13 Survey Type: MANUAL

28 LE-02-A-04 COUNCIL OFFICES LEICESTERSHIRE
BURTON STREET
MELTON MOWBRAY

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3981 sqm
Survey date: WEDNESDAY 30/11/16 Survey Type: MANUAL

29 LU-02-A-01 BETTING HEADQUARTERS LOUTH
INNER RELIEF ROAD
DUNDALK

Edge of Town
Commercial Zone
Total Gross floor area: 2052 sqm
Survey date: MONDAY 09/11/20 Survey Type: MANUAL

30 MG-02-A-02 OFFICES MONAGHAN
ARMAGH ROAD
MONAGHAN

Edge of Town
Out of Town
Total Gross floor area: 3205 sqm
Survey date: WEDNESDAY 16/11/16 Survey Type: MANUAL

31 MS-02-A-02 SCIENCE PARK OFFICES MERSEYSIDE
MOUNT PLEASANT
LIVERPOOL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 11250 sqm
Survey date: TUESDAY 13/11/18 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

32 MT-02-A-02 COUNCIL OFFICES MERTHYR TYDFIL
CASTLE STREET
MERTHYR TYDFIL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 5250 sqm
Survey date: THURSDAY *17/10/13* *Survey Type: MANUAL*

33 NF-02-A-02 FINANCIAL PLANNERS NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 894 sqm
Survey date: MONDAY *11/09/17* *Survey Type: MANUAL*

34 NF-02-A-03 OFFICES NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 5500 sqm
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

35 NF-02-A-04 BUILDING CONSULTANT NORFOLK
WHITING ROAD
NORWICH

Edge of Town
Commercial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY *13/11/19* *Survey Type: MANUAL*

36 NR-02-A-01 OFFICES NORTHAMPTONSHIRE
THE LAKES
NORTHAMPTON

Edge of Town
Commercial Zone
Total Gross floor area: 9225 sqm
Survey date: THURSDAY *22/10/20* *Survey Type: MANUAL*

37 NY-02-A-01 SOLICITORS NORTH YORKSHIRE
NORTH PARK ROAD
HARROGATE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 178 sqm
Survey date: THURSDAY *04/10/18* *Survey Type: MANUAL*

38 NY-02-A-02 DISTRICT COUNCIL OFFICES NORTH YORKSHIRE
STATION ROAD
RICHMOND

Edge of Town Centre
No Sub Category
Total Gross floor area: 1930 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

39 PS-02-A-01 COUNCIL OFFICES POWYS
SEVERN ROAD
WELSHPOOL

Edge of Town Centre
No Sub Category
Total Gross floor area: 3920 sqm
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

40 RO-02-A-02 GOVERNMENT OFFICES ROSCOMMON
GOLF LINKS ROAD
ROSCOMMON
ARDSALLAGH BEG
Edge of Town Centre
Residential Zone
Total Gross floor area: 7200 sqm
Survey date: TUESDAY *23/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

41 SF-02-A-02 OFFICES SUFFOLK
BATH STREET
IPSWICH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 6505 sqm
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

42 SF-02-A-03 OFFICES SUFFOLK
WHITE HOUSE ROAD
IPSWICH

Edge of Town
Industrial Zone
Total Gross floor area: 2800 sqm
Survey date: THURSDAY *24/09/20* *Survey Type: MANUAL*

43 SO-02-A-02 COUNCIL OFFICES SLOUGH
BATH ROAD
SLOUGH

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 5050 sqm
Survey date: THURSDAY *27/02/14* *Survey Type: MANUAL*

44 SR-02-A-02 SERVICED OFFICES STIRLING
WELLGREEN ROAD
STIRLING

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2150 sqm
Survey date: TUESDAY *08/09/20* *Survey Type: MANUAL*

45 SW-02-A-01 OFFICES SWANSEA
LANGDON ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Gross floor area: 6630 sqm
Survey date: FRIDAY *25/10/13* *Survey Type: MANUAL*

46 SW-02-A-02 OFFICE SWANSEA
KINGS ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Gross floor area: 2225 sqm
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

47 TH-02-A-01 OFFICE SPACE FOR RENT TOWER HAMLETS
CAMBRIDGE HEATH ROAD
BETHNAL GREEN

Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 7049 sqm
Survey date: WEDNESDAY *06/03/19* *Survey Type: MANUAL*

48 TV-02-A-05 CHEMICAL COMPANY TEES VALLEY
HANZARD DRIVE
NEAR BILLINGHAM
WYNYARD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 5110 sqm
Survey date: FRIDAY *04/09/20* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

49 TW-02-A-08 HOUSING ASSOCIATION OFFICE TYNE & WEAR
BENTON PARK ROAD
NEWCASTLE UPON TYNE
LONGBENTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4800 sqm
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

50 WH-02-A-03 OFFICE WANDSWORTH
BROUGHTON STREET
NINE ELMS

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 1400 sqm
Survey date: MONDAY *16/11/15* *Survey Type: MANUAL*

51 WL-02-A-01 PET INSURANCE COMPANY WILTSHIRE
THE CRESCENT
AMESBURY
SUNRISE WAY
Edge of Town
Development Zone
Total Gross floor area: 2500 sqm
Survey date: TUESDAY *18/09/18* *Survey Type: MANUAL*

52 WM-02-A-04 OFFICE WEST MIDLANDS
BOURNVILLE LANE
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1800 sqm
Survey date: TUESDAY *10/11/15* *Survey Type: MANUAL*

53 WO-02-A-02 OFFICE WORCESTERSHIRE
MOOR STREET
WORCESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2000 sqm
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

54 WO-02-A-03 IT SERVICES WORCESTERSHIRE
STOURPORT ROAD
KIDDERMINSTER

Edge of Town
Industrial Zone
Total Gross floor area: 5945 sqm
Survey date: TUESDAY *13/10/20* *Survey Type: MANUAL*

55 WY-02-A-05 OFFICES WEST YORKSHIRE
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Gross floor area: 1230 sqm
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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	2	65050	0.158	2	65050	0.020	2	65050	0.178
06:30 - 07:00	2	65050	0.244	2	65050	0.042	2	65050	0.286
07:00 - 07:30	53	6311	0.162	53	6311	0.022	53	6311	0.184
07:30 - 08:00	53	6311	0.368	53	6311	0.052	53	6311	0.420
08:00 - 08:30	54	6197	0.480	54	6197	0.056	54	6197	0.536
08:30 - 09:00	55	6192	0.559	55	6192	0.075	55	6192	0.634
09:00 - 09:30	55	6192	0.414	55	6192	0.077	55	6192	0.491
09:30 - 10:00	55	6192	0.252	55	6192	0.091	55	6192	0.343
10:00 - 10:30	55	6192	0.130	55	6192	0.076	55	6192	0.206
10:30 - 11:00	55	6192	0.095	55	6192	0.070	55	6192	0.165
11:00 - 11:30	55	6192	0.074	55	6192	0.064	55	6192	0.138
11:30 - 12:00	55	6192	0.087	55	6192	0.072	55	6192	0.159
12:00 - 12:30	55	6192	0.087	55	6192	0.125	55	6192	0.212
12:30 - 13:00	55	6192	0.108	55	6192	0.137	55	6192	0.245
13:00 - 13:30	55	6192	0.108	55	6192	0.123	55	6192	0.231
13:30 - 14:00	55	6192	0.119	55	6192	0.109	55	6192	0.228
14:00 - 14:30	55	6192	0.102	55	6192	0.089	55	6192	0.191
14:30 - 15:00	55	6192	0.072	55	6192	0.111	55	6192	0.183
15:00 - 15:30	55	6192	0.062	55	6192	0.135	55	6192	0.197
15:30 - 16:00	55	6192	0.059	55	6192	0.149	55	6192	0.208
16:00 - 16:30	55	6192	0.063	55	6192	0.304	55	6192	0.367
16:30 - 17:00	55	6192	0.067	55	6192	0.323	55	6192	0.390
17:00 - 17:30	55	6192	0.057	55	6192	0.512	55	6192	0.569
17:30 - 18:00	55	6192	0.046	55	6192	0.383	55	6192	0.429
18:00 - 18:30	53	6400	0.027	53	6400	0.265	53	6400	0.292
18:30 - 19:00	53	6400	0.023	53	6400	0.138	53	6400	0.161
19:00 - 19:30	2	61075	0.026	2	61075	0.115	2	61075	0.141
19:30 - 20:00	2	61075	0.020	2	61075	0.108	2	61075	0.128
20:00 - 20:30	2	61075	0.020	2	61075	0.058	2	61075	0.078
20:30 - 21:00	2	61075	0.015	2	61075	0.030	2	61075	0.045
21:00 - 21:30	1	120000	0.031	1	120000	0.039	1	120000	0.070
21:30 - 22:00	1	120000	0.017	1	120000	0.033	1	120000	0.050
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			4.152			4.003			8.155

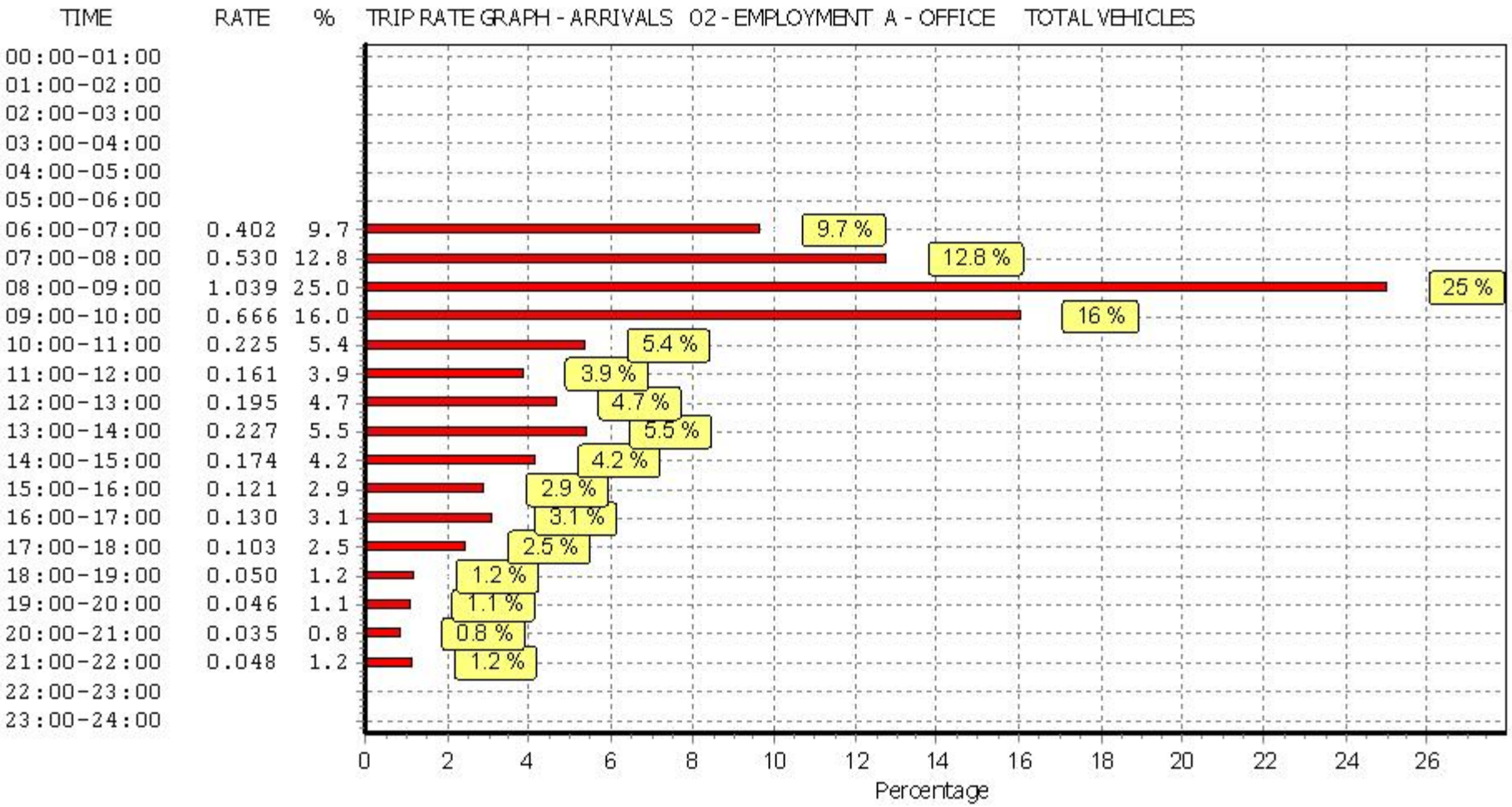
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.*

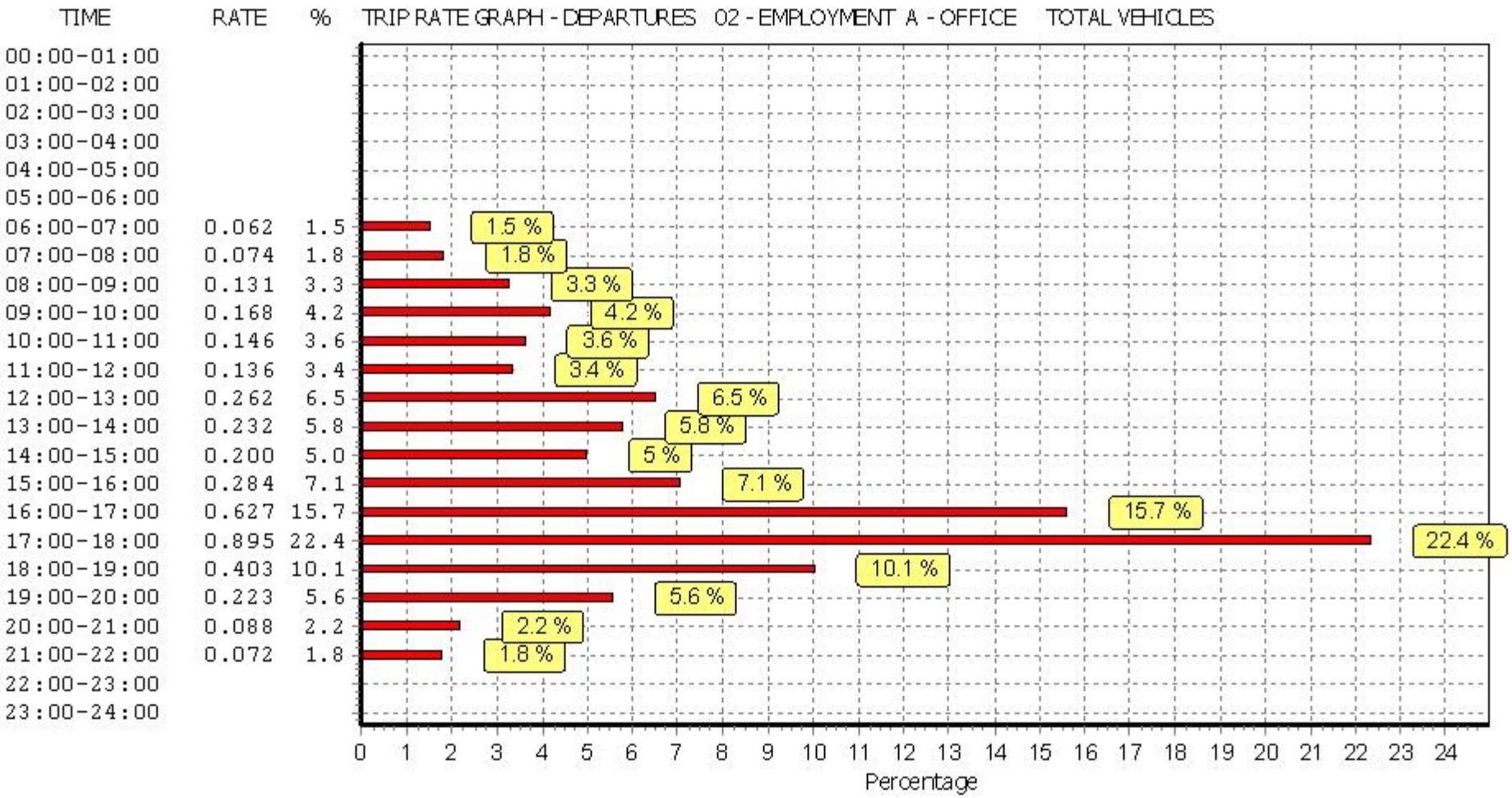
Parameter summary

Trip rate parameter range selected:	178 - 120000 (units: sqm)
Survey date date range:	01/01/13 - 09/11/20
Number of weekdays (Monday-Friday):	55
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	3
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.



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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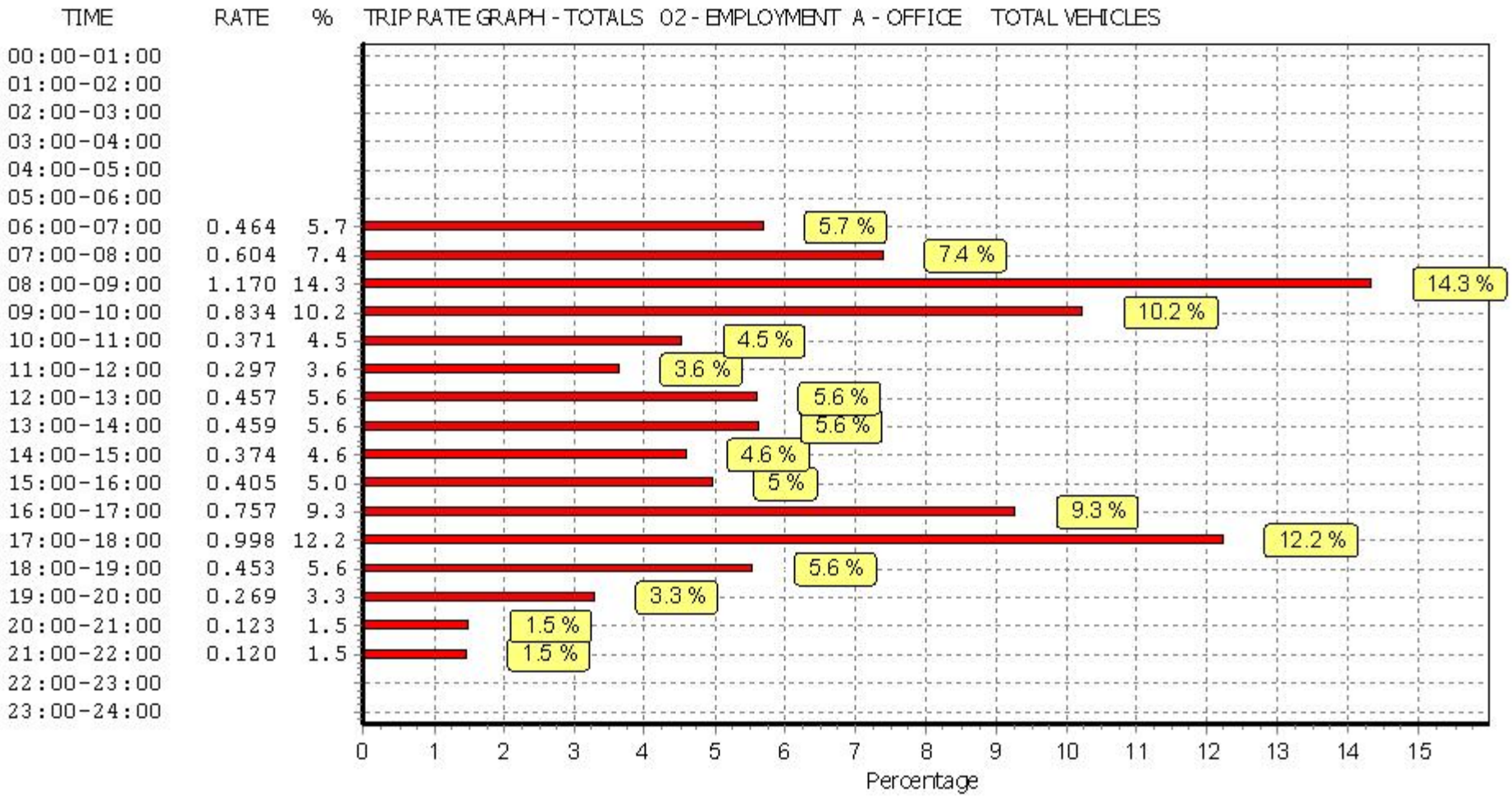


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

Calculation Reference: AUDIT-638801-210621-0623

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : B - RESTAURANTS
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BT	BRENT	1 days
	EN	ENFIELD	1 days
	LB	LAMBETH	1 days
02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
	WS	WEST SUSSEX	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	2 days
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
	WM	WEST MIDLANDS	3 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
10	WALES		
	CF	CARDIFF	1 days
11	SCOTLAND		
	RF	RENFREWSHIRE	1 days
12	CONNAUGHT		
	RO	ROSCOMMON	1 days
14	LEINSTER		
	LU	LOUTH	2 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	2 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 130 to 2200 (units: sqm)
Range Selected by User: 75 to 2400 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 25/09/19

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

Selected survey days:

Monday	4 days
Tuesday	4 days
Wednesday	1 days
Thursday	4 days
Friday	5 days
Saturday	1 days
Sunday	2 days

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

Selected survey types:

Manual count	21 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	5
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	7

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

Selected Location Sub Categories:

Development Zone	5
Residential Zone	2
Retail Zone	2
Built-Up Zone	3
Village	2
Out of Town	1
High Street	3
No Sub Category	3

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

Secondary Filtering selection:

Use Class:

E(b)	21 days

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

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	3 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	2 days
100,001 or More	1 days

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

Population within 5 miles:

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

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	9 days
1.1 to 1.5	10 days
2.1 to 2.5	1 days

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

Travel Plan:

Yes	2 days
No	19 days

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

PTAL Rating:

No PTAL Present	18 days
3 Moderate	1 days
5 Very Good	1 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1 AN-06-B-02 FRANKIE & BENNY'S ANTRIM
HILSBOROUGH ROAD
LISBURN

Edge of Town
Retail Zone
Total Gross floor area: 275 sqm
Survey date: FRIDAY *19/06/15* *Survey Type: MANUAL*

2 AN-06-B-03 MODERN CUISINE ANTRIM
LISBURN ROAD
BELFAST

Suburban Area (PPS6 Out of Centre)
High Street
Total Gross floor area: 320 sqm
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

3 BT-06-B-01 COFFEE SHOP & RESTAURANT BRENT
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 150 sqm
Survey date: MONDAY *18/05/15* *Survey Type: MANUAL*

4 CF-06-B-02 FRANKIE & BENNY'S CARDIFF
NEWPORT ROAD
CARDIFF

Edge of Town
Development Zone
Total Gross floor area: 400 sqm
Survey date: SUNDAY *19/10/14* *Survey Type: MANUAL*

5 CH-06-B-01 BBQ RESTAURANT CHESHIRE
SOUTERS LANE
CHESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 500 sqm
Survey date: TUESDAY *11/11/14* *Survey Type: MANUAL*

6 DS-06-B-02 CHIQUITO DERBYSHIRE
PRIDE PARKWAY
DERBY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 450 sqm
Survey date: SUNDAY *19/10/14* *Survey Type: MANUAL*

7 DS-06-B-03 BRITISH RESTAURANT DERBYSHIRE
THORNHILL ROAD
DERBY
LITTLEOVER
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 350 sqm
Survey date: THURSDAY *12/07/18* *Survey Type: MANUAL*

8 EN-06-B-01 ITALIAN RESTAURANT ENFIELD
CHASE SIDE
ENFIELD

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 370 sqm
Survey date: TUESDAY *17/11/15* *Survey Type: MANUAL*

9 HC-06-B-01 PIZZA HUT HAMPSHIRE
BINNACLE WAY
PORTSMOUTH
COSHAM
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 325 sqm
Survey date: MONDAY *23/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 LB-06-B-01 PORTUGUESE RESTAURANT LAMBETH
STOCKWELL ROAD
STOCKWELL

Edge of Town Centre
No Sub Category
Total Gross floor area: 194 sqm
Survey date: MONDAY *24/06/19* *Survey Type: MANUAL*

11 LN-06-B-01 PREZZO LINCOLNSHIRE
BRAYFORD WHARF NORTH
LINCOLN
BRAYFORD WHARF
Edge of Town Centre
Development Zone
Total Gross floor area: 1136 sqm
Survey date: TUESDAY *10/10/17* *Survey Type: MANUAL*

12 LU-06-B-01 RESTAURANT LOUTH
CARLINGFORD ROAD R173
NEAR DUNDALK

Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 865 sqm
Survey date: WEDNESDAY *25/09/13* *Survey Type: MANUAL*

13 LU-06-B-02 RESTAURANT LOUTH
DONORE ROAD
DROGHEDA
LAGAVOOREN
Edge of Town
No Sub Category
Total Gross floor area: 2200 sqm
Survey date: FRIDAY *19/06/15* *Survey Type: MANUAL*

14 RF-06-B-01 INDIAN RESTAURANT RENFREWSHIRE
LINWOOD ROAD
PAISLEY
PHOENIX LEISURE PARK
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 175 sqm
Survey date: FRIDAY *20/06/14* *Survey Type: MANUAL*

15 RO-06-B-01 IRISH RESTAURANT ROSCOMMON
MAIN STREET
TULSK

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 736 sqm
Survey date: FRIDAY *27/04/18* *Survey Type: MANUAL*

16 ST-06-B-01 RESTAURANT STAFFORDSHIRE
STONE ROAD
STOKE-ON-TRENT
TRENTHAM
Edge of Town
Retail Zone
Total Gross floor area: 259 sqm
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

17 WM-06-B-05 AKBARS WEST MIDLANDS
THE BUTTS
COVENTRY

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 600 sqm
Survey date: THURSDAY *17/11/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

18 WM-06-B-06 ITALIAN RESTAURANT WEST MIDLANDS
EARLSDON STREET
COVENTRY

Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 175 sqm
Survey date: THURSDAY *24/11/16* *Survey Type: MANUAL*

19 WM-06-B-07 INDIAN RESTAURANT WEST MIDLANDS
AUDNAM
STOURBRIDGE
AUDNAM
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 370 sqm
Survey date: TUESDAY *28/11/17* *Survey Type: MANUAL*

20 WS-06-B-02 BRITISH FINE DINING WEST SUSSEX
ARUNDEL ROAD
NEAR CHICHESTER
TANGMERE
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 130 sqm
Survey date: SATURDAY *04/10/14* *Survey Type: MANUAL*

21 WY-06-B-01 CHINESE RESTAURANT WEST YORKSHIRE
BINGLEY STREET
LEEDS

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 950 sqm
Survey date: MONDAY *19/10/15* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
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 - 01:00	2	660	0.152	2	660	0.227	2	660	0.379
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	2	530	0.000	2	530	0.000	2	530	0.000
08:00 - 09:00	3	486	0.274	3	486	0.206	3	486	0.480
09:00 - 10:00	5	417	1.008	5	417	0.240	5	417	1.248
10:00 - 11:00	14	461	1.210	14	461	0.651	14	461	1.861
11:00 - 12:00	19	524	1.355	19	524	0.914	19	524	2.269
12:00 - 13:00	19	524	2.369	19	524	1.265	19	524	3.634
13:00 - 14:00	19	524	2.098	19	524	2.189	19	524	4.287
14:00 - 15:00	19	524	1.295	19	524	1.918	19	524	3.213
15:00 - 16:00	20	517	0.891	20	517	1.249	20	517	2.140
16:00 - 17:00	21	520	1.107	21	520	0.897	21	520	2.004
17:00 - 18:00	21	520	1.738	21	520	0.970	21	520	2.708
18:00 - 19:00	21	520	2.287	21	520	1.830	21	520	4.117
19:00 - 20:00	21	520	2.214	21	520	1.958	21	520	4.172
20:00 - 21:00	21	520	1.281	21	520	2.104	21	520	3.385
21:00 - 22:00	21	520	0.887	21	520	1.491	21	520	2.378
22:00 - 23:00	20	503	0.566	20	503	1.232	20	503	1.798
23:00 - 24:00	18	512	0.228	18	512	0.890	18	512	1.118
Total Rates:			20.960			20.231			41.191

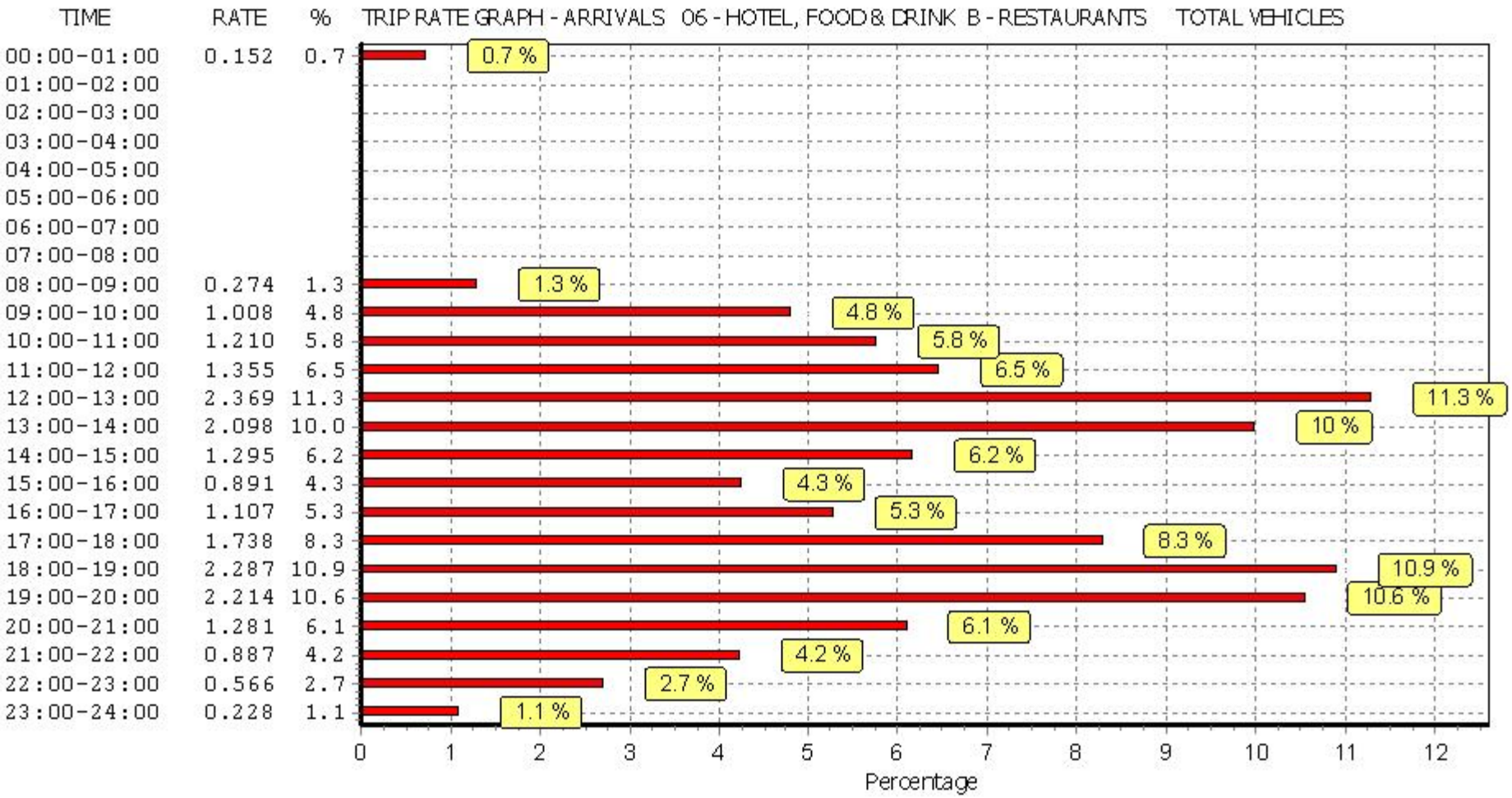
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.*

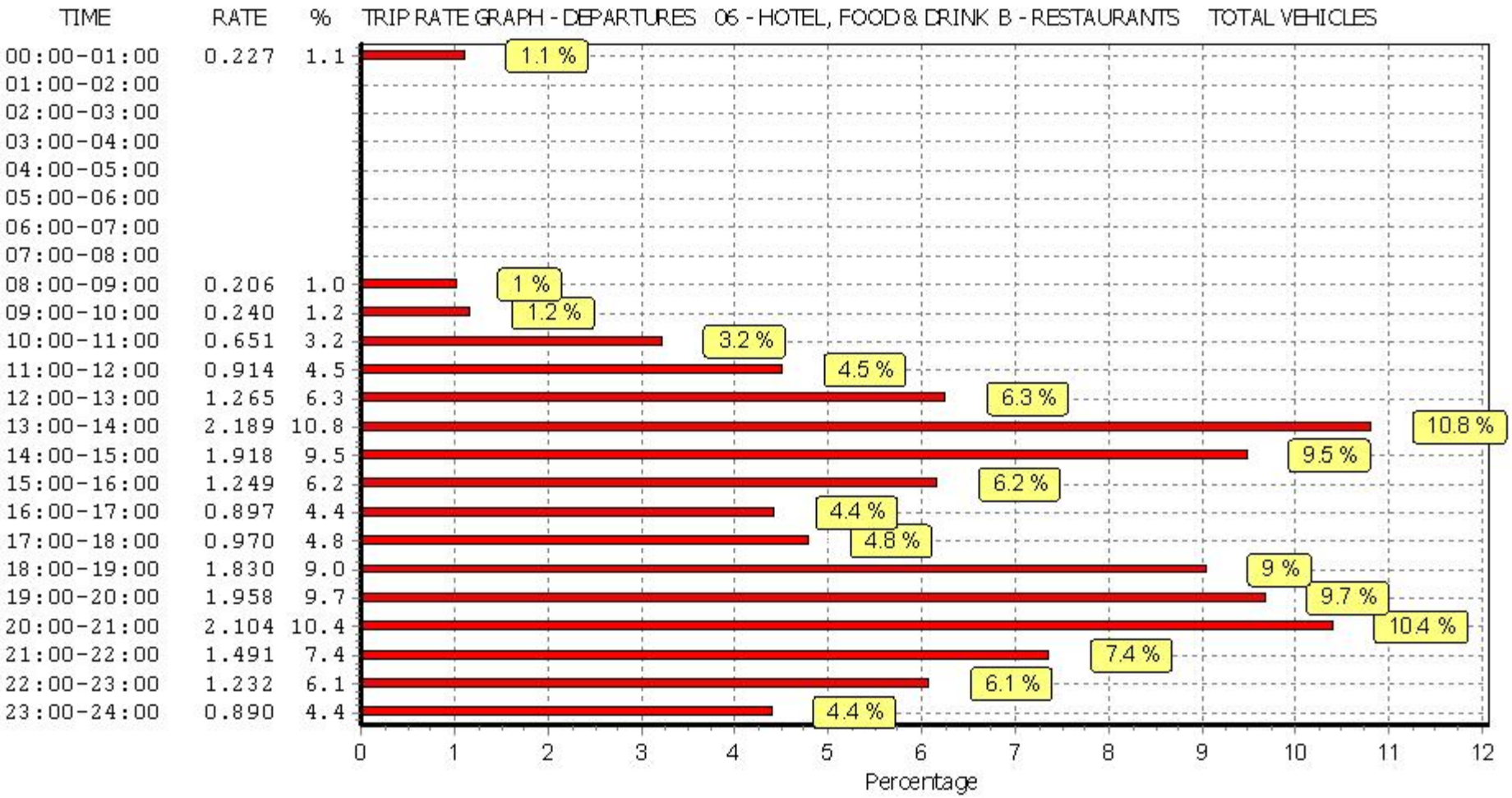
Parameter summary

Trip rate parameter range selected:	130 - 2200 (units: sqm)
Survey date date range:	01/01/13 - 25/09/19
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	1
Number of Sundays:	2
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.



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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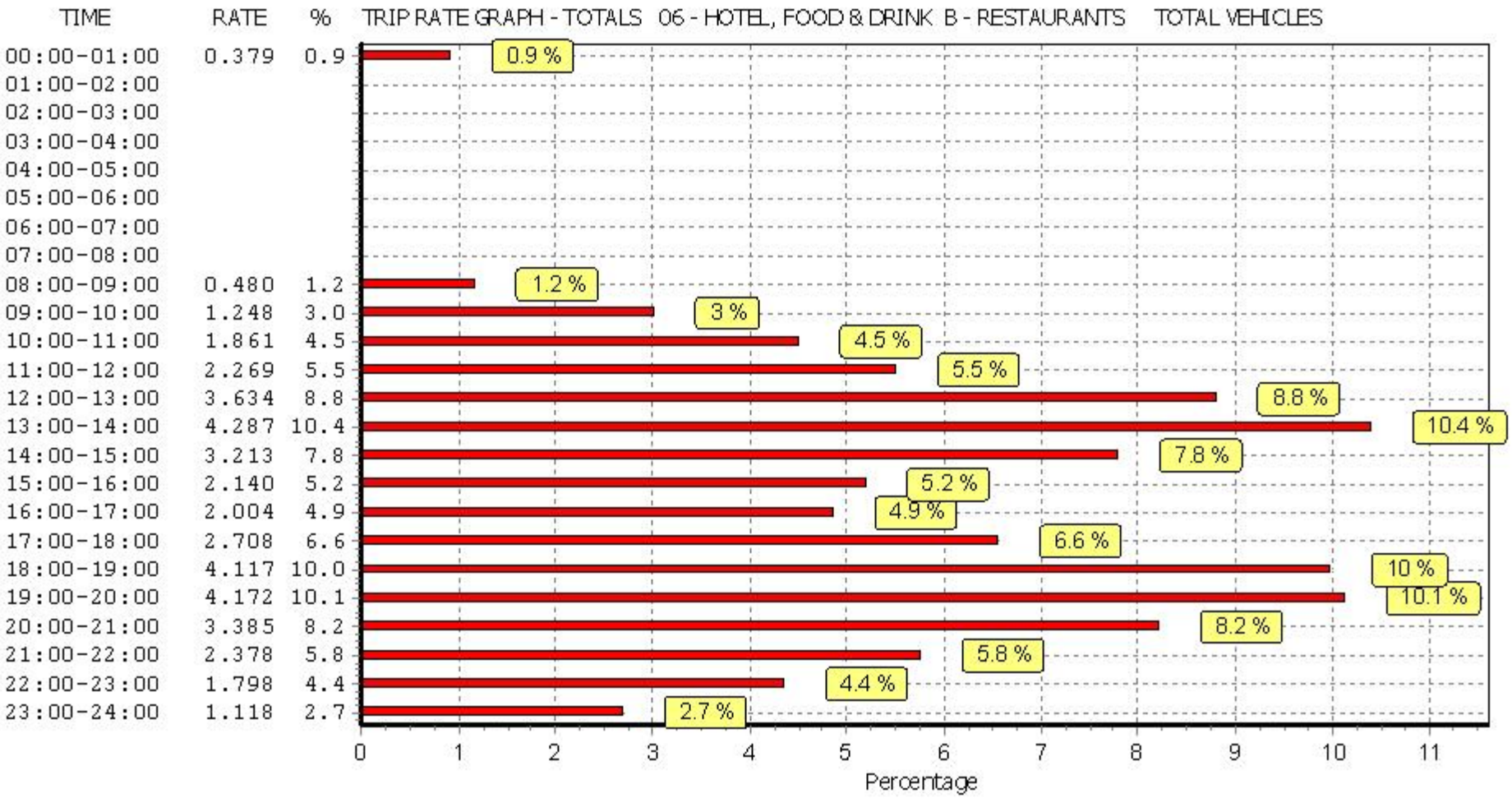

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

Calculation Reference: AUDIT-638801-210622-0651

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	KC	KENT	1 days
03	SOUTH WEST		
	DC	DORSET	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	2 days
08	NORTH WEST		
	LC	LANCASHIRE	1 days
12	CONNAUGHT		
	CS	SLIGO	1 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 470 to 4755 (units: sqm)
Range Selected by User: 290 to 27843 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 14/03/19

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

Selected survey days:

Tuesday	2 days
Thursday	2 days
Saturday	4 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	1
Retail Zone	4
Built-Up Zone	3

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

Secondary Filtering selection:

Use Class:

E(a)	8 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	3 days
0.6 to 1.0	2 days
1.1 to 1.5	3 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	8 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	8 days

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

PTAL Rating:

No PTAL Present	8 days

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

LIST OF SITES relevant to selection parameters

1 AN-01-G-01 DFS ANTRIM
BOUCHER ROAD
BELFAST
BALMORAL
Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 2903 sqm
Survey date: THURSDAY *22/11/18* *Survey Type: MANUAL*

2 CS-01-G-02 SMYTHS TOYS SLIGO
PEARSE ROAD
SLIGO
CARRAROE RETAIL PARK
Edge of Town
Retail Zone
Total Gross floor area: 3416 sqm
Survey date: SATURDAY *26/10/13* *Survey Type: MANUAL*

3 DC-01-G-02 THE RANGE DORSET
GREAT WESTERN ROAD
DORCHESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2100 sqm
Survey date: SATURDAY *17/09/16* *Survey Type: MANUAL*

4 KC-01-G-04 MAJESTIC WINE KENT
LONDON ROAD
MAIDSTONE
ROCKY HILL
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 470 sqm
Survey date: SATURDAY *12/05/18* *Survey Type: MANUAL*

5 LC-01-G-01 CURRYS PC WORLD LANCASHIRE
BLACKPOOL ROAD
PRESTON
RIBBLETON
Suburban Area (PPS6 Out of Centre)
Retail Zone
Total Gross floor area: 4100 sqm
Survey date: TUESDAY *06/11/18* *Survey Type: MANUAL*

6 LN-01-G-01 PETS AT HOME LINCOLNSHIRE
TRITTON ROAD
LINCOLN
TRITTON RETAIL PARK
Edge of Town Centre
Retail Zone
Total Gross floor area: 1600 sqm
Survey date: TUESDAY *31/10/17* *Survey Type: MANUAL*

7 WY-01-G-01 CURRYS PC WORLD WEST YORKSHIRE
HOLDEN ING WAY
BATLEY
BIRSTALL
Edge of Town
Retail Zone
Total Gross floor area: 4755 sqm
Survey date: SATURDAY *20/10/18* *Survey Type: MANUAL*

8 WY-01-G-02 SUPA SOFA WEST YORKSHIRE
CLARENCE ROAD
LEEDS
HUNSLET
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1140 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
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 - 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	3	3205	0.052	3	3205	0.000	3	3205	0.052
08:00 - 09:00	8	2561	0.317	8	2561	0.103	8	2561	0.420
09:00 - 10:00	8	2561	0.791	8	2561	0.542	8	2561	1.333
10:00 - 11:00	8	2561	1.347	8	2561	0.991	8	2561	2.338
11:00 - 12:00	8	2561	1.504	8	2561	1.411	8	2561	2.915
12:00 - 13:00	8	2561	1.591	8	2561	1.562	8	2561	3.153
13:00 - 14:00	8	2561	2.021	8	2561	2.070	8	2561	4.091
14:00 - 15:00	8	2561	2.138	8	2561	2.080	8	2561	4.218
15:00 - 16:00	8	2561	1.831	8	2561	1.958	8	2561	3.789
16:00 - 17:00	8	2561	1.499	8	2561	1.616	8	2561	3.115
17:00 - 18:00	8	2561	1.059	8	2561	1.250	8	2561	2.309
18:00 - 19:00	8	2561	0.537	8	2561	0.737	8	2561	1.274
19:00 - 20:00	5	2235	0.618	5	2235	0.823	5	2235	1.441
20:00 - 21:00	4	2676	0.215	4	2676	0.411	4	2676	0.626
21:00 - 22:00	2	2502	0.040	2	2502	0.400	2	2502	0.440
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			15.560			15.954			31.514

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.

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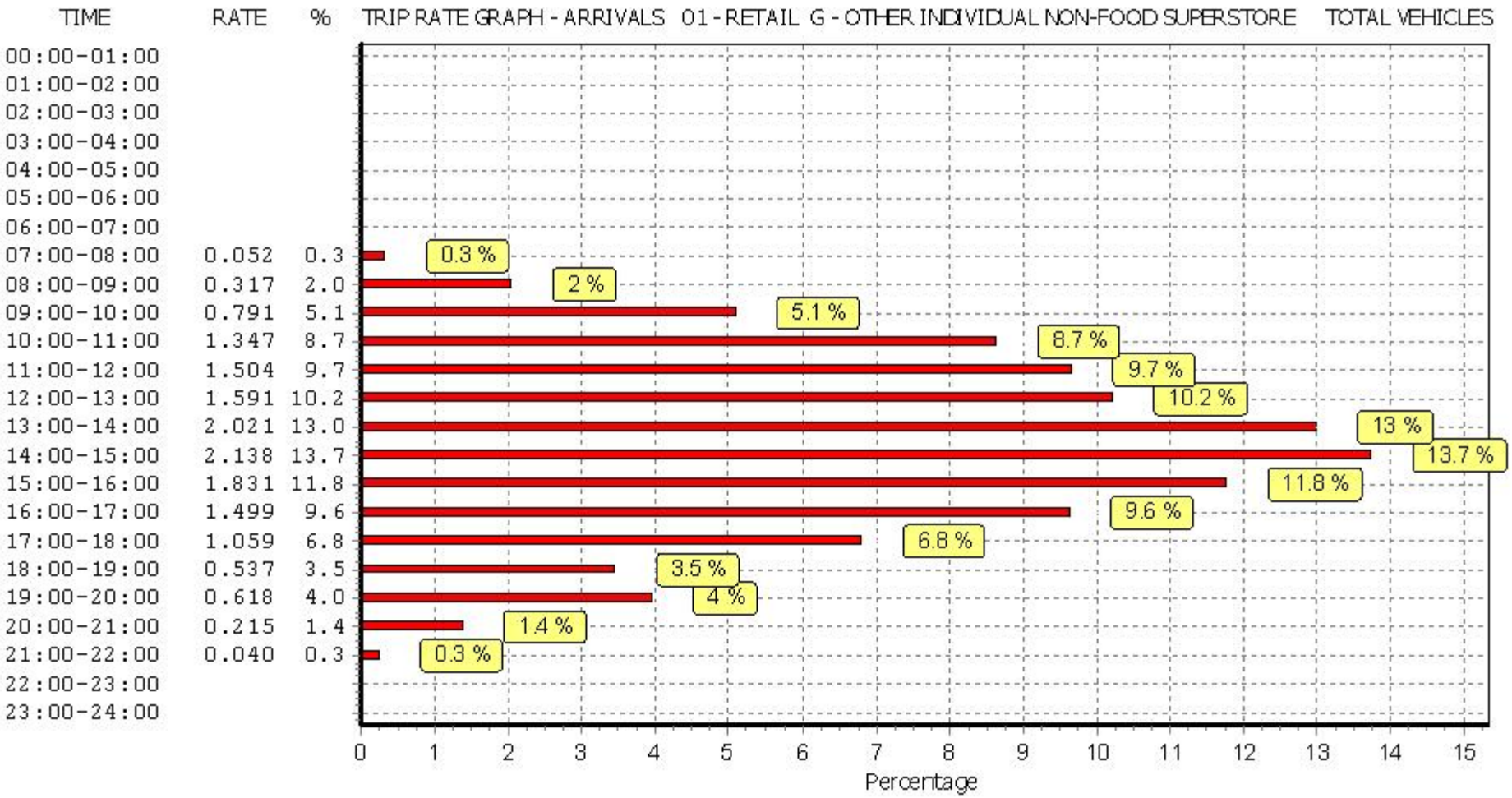
Parameter summary

Trip rate parameter range selected:	470 - 4755 (units: sqm)
Survey date date range:	01/01/13 - 14/03/19
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	4
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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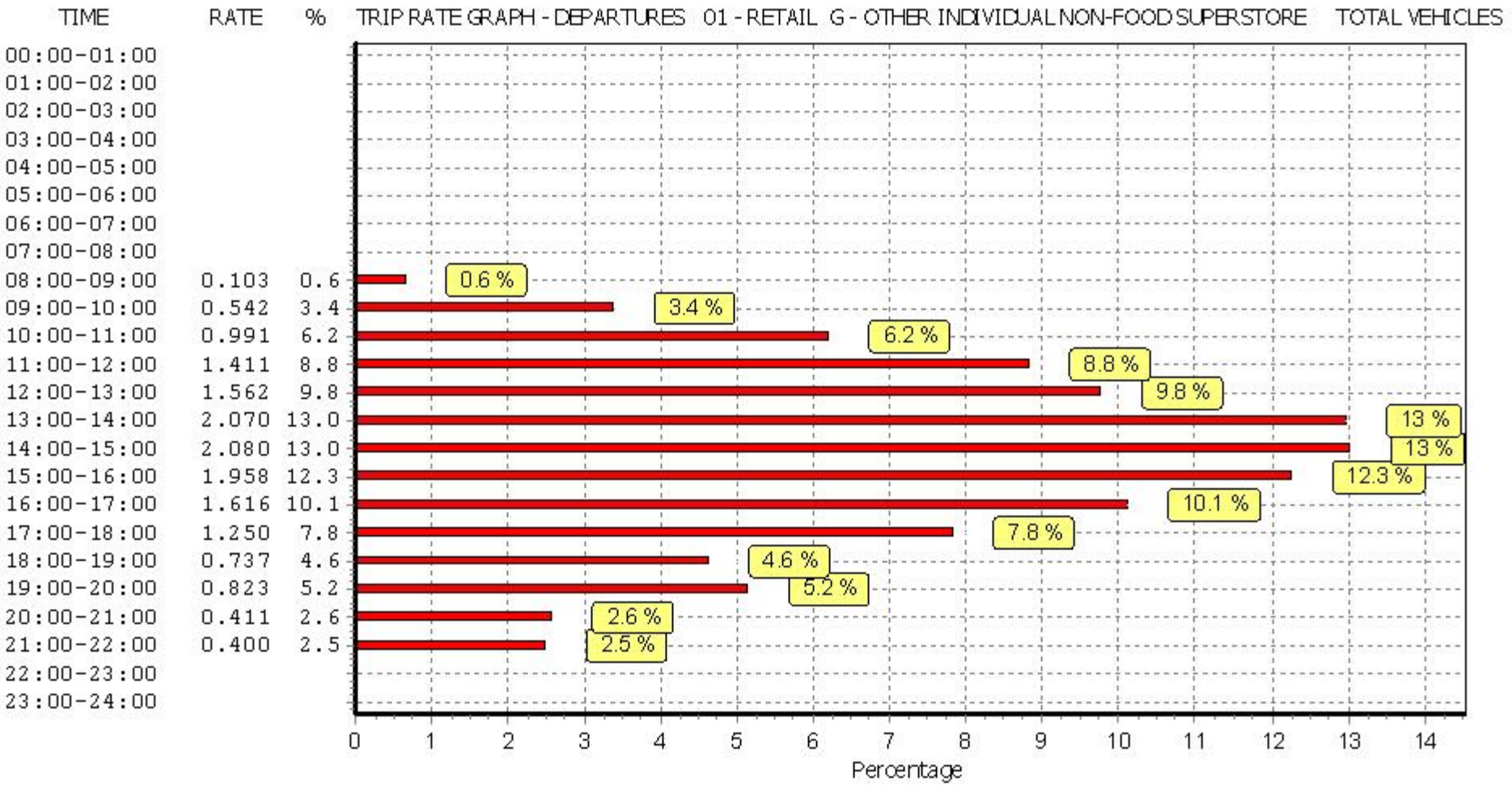

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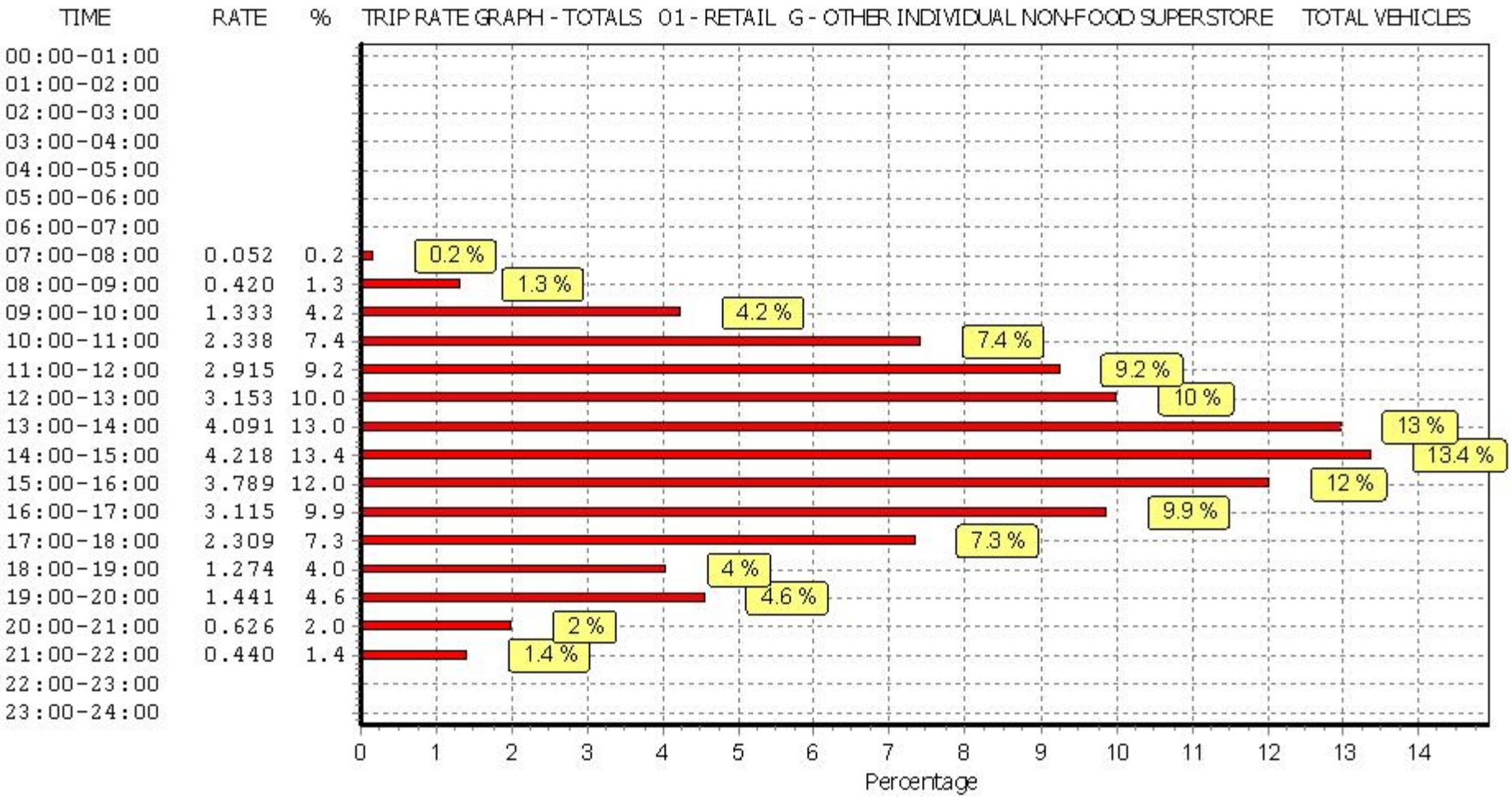

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APPENDIX D

PICADY Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Santry Avenue Site Access 30.04.21.j9
Path: G:\2020\p200060\calcs\Picady
Report generation date: 30/04/2021 12:46:49

Summary of junction performance

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

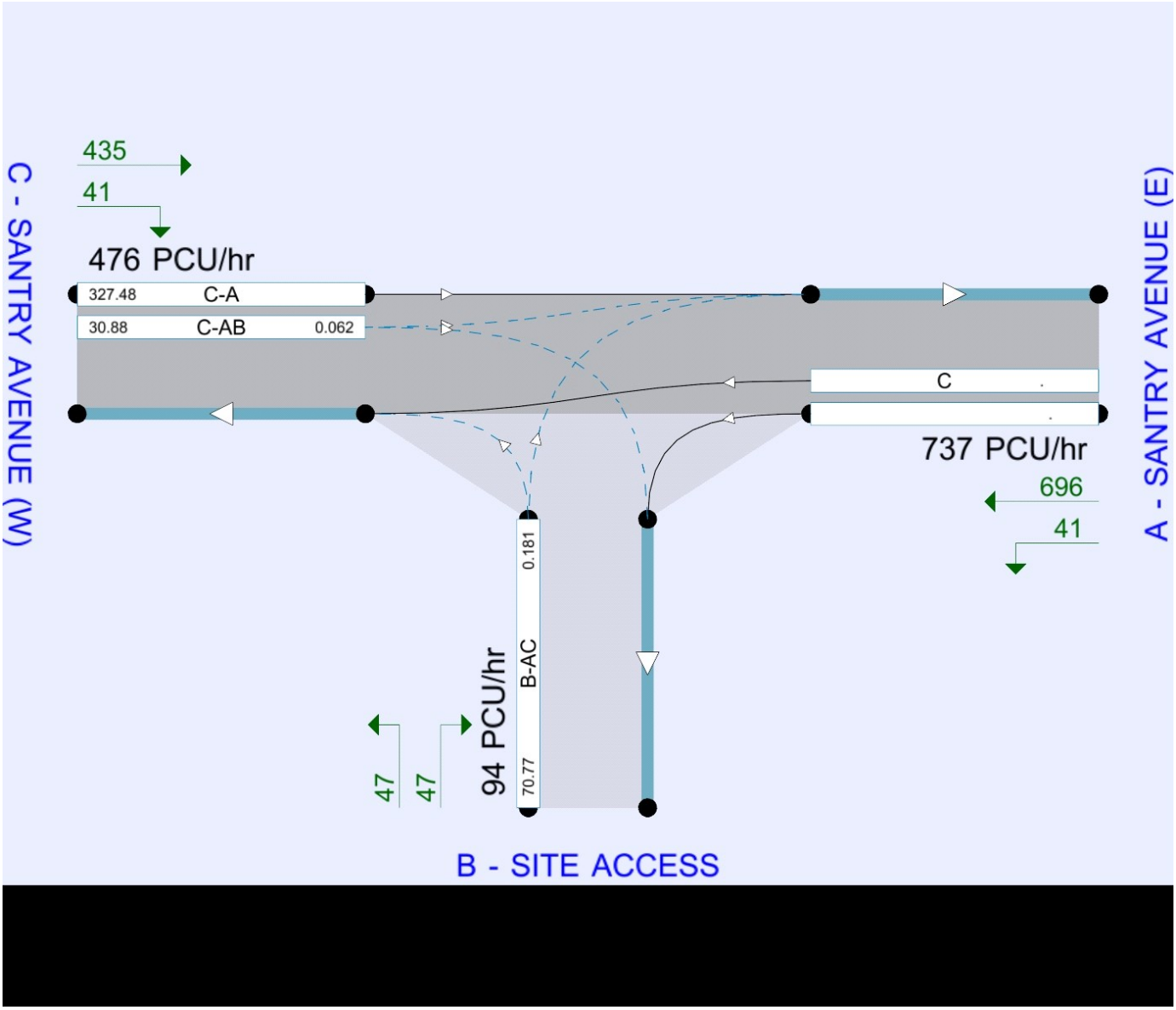
File summary

File Description

Title	MIXED USE DEVELOPMENT
Location	SANTRY AVENUE
Site number	
Date	30/04/2021
Version	
Status	
Identifier	SAS
Client	Dwyer Nolan Ltd
Jobnumber	200060
Enumerator	HEADOFFICE"saeeds
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
DN 2022	AM	ONE HOUR	07:45	09:15	15	✓
DN 2022	PM	ONE HOUR	16:45	18:15	15	✓
DS 2022	AM	ONE HOUR	07:45	09:15	15	✓
DS 2022	PM	ONE HOUR	16:45	18:15	15	✓
DN 2027	AM	ONE HOUR	07:45	09:15	15	✓
DN 2027	PM	ONE HOUR	16:45	18:15	15	✓
DS 2027	AM	ONE HOUR	07:45	09:15	15	✓
DS 2027	PM	ONE HOUR	16:45	18:15	15	✓
DN 2037	AM	ONE HOUR	07:45	09:15	15	✓
DN 2037	PM	ONE HOUR	16:45	18:15	15	✓
DS 2037	AM	ONE HOUR	07:45	09:15	15	✓
DS 2037	PM	ONE HOUR	16:45	18:15	15	✓

DO NOTHING SCENARIO - DN 2022, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D1	DN 2022	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	620.00	100.000
B - SITE ACCESS		ONE HOUR	✓	50.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	431.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	42.000	578.000
	B - SITE ACCESS	25.000	0.000	25.000
	C - SANTRY AVENUE (W)	389.000	42.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.07	0.93
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.16	13.59	0.2	B	45.88	68.82
C-AB	0.10	9.45	0.1	A	38.58	57.87
C-A					356.92	535.37
A-B					38.54	57.81
A-C					530.38	795.57

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	37.64	37.64	9.41	0.00	416.71	0.090	37.21	0.0	0.1	10.423	B
C-AB	31.63	31.63	7.91	0.00	517.74	0.061	31.34	0.0	0.1	8.138	A
C-A	292.85	292.85	73.21	0.00			292.85				
A-B	31.62	31.62	7.90	0.00			31.62				
A-C	435.15	435.15	108.79	0.00			435.15				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	44.95	44.95	11.24	0.00	387.57	0.116	44.81	0.1	0.1	11.548	B
C-AB	37.78	37.78	9.45	0.00	495.73	0.076	37.70	0.1	0.1	8.645	A
C-A	349.68	349.68	87.42	0.00			349.68				
A-B	37.76	37.76	9.44	0.00			37.76				
A-C	519.61	519.61	129.90	0.00			519.61				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	55.05	55.05	13.76	0.00	346.44	0.159	54.80	0.1	0.2	13.568	B
C-AB	46.32	46.32	11.58	0.00	465.54	0.100	46.20	0.1	0.1	9.440	A
C-A	428.22	428.22	107.05	0.00			428.22				
A-B	46.24	46.24	11.56	0.00			46.24				
A-C	636.39	636.39	159.10	0.00			636.39				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	55.05	55.05	13.76	0.00	346.41	0.159	55.04	0.2	0.2	13.590	B
C-AB	46.32	46.32	11.58	0.00	465.54	0.100	46.32	0.1	0.1	9.445	A
C-A	428.22	428.22	107.05	0.00			428.22				
A-B	46.24	46.24	11.56	0.00			46.24				
A-C	636.39	636.39	159.10	0.00			636.39				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	44.95	44.95	11.24	0.00	387.52	0.116	45.19	0.2	0.1	11.575	B
C-AB	37.78	37.78	9.45	0.00	495.73	0.076	37.90	0.1	0.1	8.651	A
C-A	349.68	349.68	87.42	0.00			349.68				
A-B	37.76	37.76	9.44	0.00			37.76				
A-C	519.61	519.61	129.90	0.00			519.61				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	37.64	37.64	9.41	0.00	416.62	0.090	37.79	0.1	0.1	10.458	B
C-AB	31.63	31.63	7.91	0.00	517.74	0.061	31.71	0.1	0.1	8.148	A
C-A	292.85	292.85	73.21	0.00			292.85				
A-B	31.62	31.62	7.90	0.00			31.62				
A-C	435.15	435.15	108.79	0.00			435.15				

DO NOTHING SCENARIO - DN 2022, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D2	DN 2022	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	623.00	100.000
B - SITE ACCESS		ONE HOUR	✓	82.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	415.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	26.000	597.000
	B - SITE ACCESS	41.000	0.000	41.000
	C - SANTRY AVENUE (W)	373.000	42.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.04	0.96
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.26	15.55	0.4	C	75.24	112.87
C-AB	0.10	9.46	0.1	A	38.58	57.86
C-A					342.24	513.35
A-B					23.86	35.79
A-C					547.82	821.73

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	415.64	0.149	60.98	0.0	0.2	11.142	B
C-AB	31.63	31.63	7.91	0.00	517.18	0.061	31.34	0.0	0.1	8.148	A
C-A	280.81	280.81	70.20	0.00			280.81				
A-B	19.57	19.57	4.89	0.00			19.57				
A-C	449.45	449.45	112.36	0.00			449.45				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	386.32	0.191	73.45	0.2	0.3	12.647	B
C-AB	37.78	37.78	9.45	0.00	495.06	0.076	37.70	0.1	0.1	8.657	A
C-A	335.30	335.30	83.82	0.00			335.30				
A-B	23.37	23.37	5.84	0.00			23.37				
A-C	536.69	536.69	134.17	0.00			536.69				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	344.99	0.262	89.78	0.3	0.4	15.485	C
C-AB	46.32	46.32	11.58	0.00	464.71	0.100	46.20	0.1	0.1	9.458	A
C-A	410.60	410.60	102.65	0.00			410.60				
A-B	28.63	28.63	7.16	0.00			28.63				
A-C	657.31	657.31	164.33	0.00			657.31				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	344.95	0.262	90.27	0.4	0.4	15.546	C
C-AB	46.32	46.32	11.58	0.00	464.71	0.100	46.32	0.1	0.1	9.464	A
C-A	410.60	410.60	102.65	0.00			410.60				
A-B	28.63	28.63	7.16	0.00			28.63				
A-C	657.31	657.31	164.33	0.00			657.31				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	386.27	0.191	74.20	0.4	0.3	12.710	B
C-AB	37.78	37.78	9.45	0.00	495.06	0.076	37.90	0.1	0.1	8.665	A
C-A	335.30	335.30	83.82	0.00			335.30				
A-B	23.37	23.37	5.84	0.00			23.37				
A-C	536.69	536.69	134.17	0.00			536.69				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	415.55	0.149	62.01	0.3	0.2	11.209	B
C-AB	31.63	31.63	7.91	0.00	517.18	0.061	31.71	0.1	0.1	8.159	A
C-A	280.81	280.81	70.20	0.00			280.81				
A-B	19.57	19.57	4.89	0.00			19.57				
A-C	449.45	449.45	112.36	0.00			449.45				

DO NOTHING SCENARIO - DN 2027, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D5	DN 2027	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	669.00	100.000
B - SITE ACCESS		ONE HOUR	✓	50.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	464.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	42.000	627.000
	B - SITE ACCESS	25.000	0.000	25.000
	C - SANTRY AVENUE (W)	422.000	42.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.06	0.94
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.17	14.48	0.2	B	45.88	68.82
C-AB	0.10	9.75	0.1	A	38.58	57.88
C-A					387.19	580.79
A-B					38.54	57.81
A-C					575.35	863.02

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	37.64	37.64	9.41	0.00	404.98	0.093	37.20	0.0	0.1	10.754	B
C-AB	31.63	31.63	7.91	0.00	508.73	0.062	31.34	0.0	0.1	8.290	A
C-A	317.69	317.69	79.42	0.00			317.69				
A-B	31.62	31.62	7.90	0.00			31.62				
A-C	472.04	472.04	118.01	0.00			472.04				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	44.95	44.95	11.24	0.00	373.32	0.120	44.80	0.1	0.1	12.049	B
C-AB	37.79	37.79	9.45	0.00	484.99	0.078	37.71	0.1	0.1	8.852	A
C-A	379.34	379.34	94.84	0.00			379.34				
A-B	37.76	37.76	9.44	0.00			37.76				
A-C	563.66	563.66	140.92	0.00			563.66				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	55.05	55.05	13.76	0.00	328.48	0.168	54.77	0.1	0.2	14.453	B
C-AB	46.34	46.34	11.58	0.00	452.47	0.102	46.21	0.1	0.1	9.744	A
C-A	464.54	464.54	116.13	0.00			464.54				
A-B	46.24	46.24	11.56	0.00			46.24				
A-C	690.34	690.34	172.58	0.00			690.34				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	55.05	55.05	13.76	0.00	328.44	0.168	55.04	0.2	0.2	14.483	B
C-AB	46.34	46.34	11.58	0.00	452.47	0.102	46.33	0.1	0.1	9.750	A
C-A	464.54	464.54	116.13	0.00			464.54				
A-B	46.24	46.24	11.56	0.00			46.24				
A-C	690.34	690.34	172.58	0.00			690.34				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	44.95	44.95	11.24	0.00	373.27	0.120	45.21	0.2	0.2	12.080	B
C-AB	37.79	37.79	9.45	0.00	484.99	0.078	37.91	0.1	0.1	8.861	A
C-A	379.34	379.34	94.84	0.00			379.34				
A-B	37.76	37.76	9.44	0.00			37.76				
A-C	563.66	563.66	140.92	0.00			563.66				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	37.64	37.64	9.41	0.00	404.89	0.093	37.80	0.2	0.1	10.793	B
C-AB	31.63	31.63	7.91	0.00	508.73	0.062	31.71	0.1	0.1	8.304	A
C-A	317.69	317.69	79.42	0.00			317.69				
A-B	31.62	31.62	7.90	0.00			31.62				
A-C	472.04	472.04	118.01	0.00			472.04				

DO NOTHING SCENARIO - DN 2027, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D6	DN 2027	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	669.60	100.000
B - SITE ACCESS		ONE HOUR	✓	82.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	430.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	26.000	643.600
	B - SITE ACCESS	41.000	0.000	41.000
	C - SANTRY AVENUE (W)	404.000	26.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.04	0.96
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.27	16.33	0.4	C	75.24	112.87
C-AB	0.06	9.36	0.1	A	23.87	35.80
C-A					370.71	556.07
A-B					23.86	35.79
A-C					590.58	885.87

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	407.45	0.152	60.96	0.0	0.2	11.404	B
C-AB	19.58	19.58	4.89	0.00	508.50	0.039	19.40	0.0	0.0	8.094	A
C-A	304.15	304.15	76.04	0.00			304.15				
A-B	19.57	19.57	4.89	0.00			19.57				
A-C	484.54	484.54	121.13	0.00			484.54				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	376.50	0.196	73.44	0.2	0.3	13.054	B
C-AB	23.38	23.38	5.84	0.00	484.60	0.048	23.33	0.0	0.1	8.583	A
C-A	363.18	363.18	90.80	0.00			363.18				
A-B	23.37	23.37	5.84	0.00			23.37				
A-C	578.58	578.58	144.65	0.00			578.58				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	332.78	0.271	89.74	0.3	0.4	16.256	C
C-AB	28.64	28.64	7.16	0.00	451.62	0.063	28.57	0.1	0.1	9.359	A
C-A	444.80	444.80	111.20	0.00			444.80				
A-B	28.63	28.63	7.16	0.00			28.63				
A-C	708.62	708.62	177.15	0.00			708.62				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	332.76	0.271	90.26	0.4	0.4	16.326	C
C-AB	28.64	28.64	7.16	0.00	451.62	0.063	28.64	0.1	0.1	9.361	A
C-A	444.80	444.80	111.20	0.00			444.80				
A-B	28.63	28.63	7.16	0.00			28.63				
A-C	708.62	708.62	177.15	0.00			708.62				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	376.47	0.196	74.24	0.4	0.3	13.125	B
C-AB	23.38	23.38	5.84	0.00	484.60	0.048	23.45	0.1	0.1	8.588	A
C-A	363.18	363.18	90.80	0.00			363.18				
A-B	23.37	23.37	5.84	0.00			23.37				
A-C	578.58	578.58	144.65	0.00			578.58				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	407.39	0.152	62.03	0.3	0.2	11.477	B
C-AB	19.58	19.58	4.89	0.00	508.50	0.039	19.62	0.1	0.0	8.100	A
C-A	304.15	304.15	76.04	0.00			304.15				
A-B	19.57	19.57	4.89	0.00			19.57				
A-C	484.54	484.54	121.13	0.00			484.54				

DO NOTHING SCENARIO - DN 2037, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D9	DN 2037	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	716.00	100.000
B - SITE ACCESS		ONE HOUR	✓	50.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	496.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	42.000	674.000
	B - SITE ACCESS	25.000	0.000	25.000
	C - SANTRY AVENUE (W)	454.000	42.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.06	0.94
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.92	0.08	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.18	15.47	0.2	C	45.88	68.82
C-AB	0.11	10.06	0.1	B	38.59	57.89
C-A					416.55	624.82
A-B					38.54	57.81
A-C					618.47	927.71

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	37.64	37.64	9.41	0.00	393.65	0.096	37.18	0.0	0.1	11.096	B
C-AB	31.63	31.63	7.91	0.00	500.09	0.063	31.34	0.0	0.1	8.443	A
C-A	341.78	341.78	85.45	0.00			341.78				
A-B	31.62	31.62	7.90	0.00			31.62				
A-C	507.42	507.42	126.86	0.00			507.42				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	44.95	44.95	11.24	0.00	359.51	0.125	44.79	0.1	0.2	12.575	B
C-AB	37.79	37.79	9.45	0.00	474.70	0.080	37.71	0.1	0.1	9.062	A
C-A	408.10	408.10	102.03	0.00			408.10				
A-B	37.76	37.76	9.44	0.00			37.76				
A-C	605.91	605.91	151.48	0.00			605.91				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	55.05	55.05	13.76	0.00	310.97	0.177	54.74	0.2	0.2	15.435	C
C-AB	46.36	46.36	11.59	0.00	439.95	0.105	46.22	0.1	0.1	10.054	B
C-A	499.75	499.75	124.94	0.00			499.75				
A-B	46.24	46.24	11.56	0.00			46.24				
A-C	742.09	742.09	185.52	0.00			742.09				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	55.05	55.05	13.76	0.00	310.93	0.177	55.04	0.2	0.2	15.474	C
C-AB	46.36	46.36	11.59	0.00	439.95	0.105	46.35	0.1	0.1	10.060	B
C-A	499.75	499.75	124.94	0.00			499.75				
A-B	46.24	46.24	11.56	0.00			46.24				
A-C	742.09	742.09	185.52	0.00			742.09				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	44.95	44.95	11.24	0.00	359.46	0.125	45.25	0.2	0.2	12.614	B
C-AB	37.79	37.79	9.45	0.00	474.70	0.080	37.92	0.1	0.1	9.070	A
C-A	408.10	408.10	102.03	0.00			408.10				
A-B	37.76	37.76	9.44	0.00			37.76				
A-C	605.91	605.91	151.48	0.00			605.91				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	37.64	37.64	9.41	0.00	393.55	0.096	37.81	0.2	0.1	11.136	B
C-AB	31.63	31.63	7.91	0.00	500.09	0.063	31.72	0.1	0.1	8.457	A
C-A	341.78	341.78	85.45	0.00			341.78				
A-B	31.62	31.62	7.90	0.00			31.62				
A-C	507.42	507.42	126.86	0.00			507.42				

DO NOTHING SCENARIO - DN 2037, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D10	DN 2037	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	722.00	100.000
B - SITE ACCESS		ONE HOUR	✓	82.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	461.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	26.000	696.000
	B - SITE ACCESS	41.000	0.000	41.000
	C - SANTRY AVENUE (W)	435.000	26.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.04	0.96
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.29	17.69	0.4	C	75.24	112.87
C-AB	0.07	9.68	0.1	A	23.87	35.80
C-A					399.16	598.73
A-B					23.86	35.79
A-C					638.66	957.99

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	395.24	0.156	60.93	0.0	0.2	11.817	B
C-AB	19.58	19.58	4.89	0.00	498.85	0.039	19.40	0.0	0.0	8.257	A
C-A	327.49	327.49	81.87	0.00			327.49				
A-B	19.57	19.57	4.89	0.00			19.57				
A-C	523.99	523.99	131.00	0.00			523.99				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	361.68	0.204	73.41	0.2	0.3	13.721	B
C-AB	23.38	23.38	5.84	0.00	473.08	0.049	23.33	0.0	0.1	8.803	A
C-A	391.05	391.05	97.76	0.00			391.05				
A-B	23.37	23.37	5.84	0.00			23.37				
A-C	625.69	625.69	156.42	0.00			625.69				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	314.08	0.287	89.66	0.3	0.4	17.595	C
C-AB	28.65	28.65	7.16	0.00	437.54	0.065	28.57	0.1	0.1	9.679	A
C-A	478.93	478.93	119.73	0.00			478.93				
A-B	28.63	28.63	7.16	0.00			28.63				
A-C	766.31	766.31	191.58	0.00			766.31				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	314.06	0.287	90.26	0.4	0.4	17.686	C
C-AB	28.65	28.65	7.16	0.00	437.54	0.065	28.64	0.1	0.1	9.684	A
C-A	478.93	478.93	119.73	0.00			478.93				
A-B	28.63	28.63	7.16	0.00			28.63				
A-C	766.31	766.31	191.58	0.00			766.31				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	361.64	0.204	74.32	0.4	0.3	13.812	B
C-AB	23.38	23.38	5.84	0.00	473.08	0.049	23.45	0.1	0.1	8.808	A
C-A	391.05	391.05	97.76	0.00			391.05				
A-B	23.37	23.37	5.84	0.00			23.37				
A-C	625.69	625.69	156.42	0.00			625.69				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	395.19	0.156	62.05	0.3	0.2	11.900	B
C-AB	19.58	19.58	4.89	0.00	498.85	0.039	19.63	0.1	0.0	8.263	A
C-A	327.49	327.49	81.87	0.00			327.49				
A-B	19.57	19.57	4.89	0.00			19.57				
A-C	523.99	523.99	131.00	0.00			523.99				

DO SOMETHING SCENARIO - DS 2022, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D3	DS 2022	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	624.00	100.000
B - SITE ACCESS		ONE HOUR	✓	82.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	435.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	46.000	578.000
	B - SITE ACCESS	41.000	0.000	41.000
	C - SANTRY AVENUE (W)	389.000	46.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.07	0.93
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.89	0.11	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.26	15.56	0.4	C	75.24	112.87
C-AB	0.11	9.57	0.1	A	42.26	63.39
C-A					356.90	535.35
A-B					42.21	63.32
A-C					530.38	795.57

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	415.69	0.149	60.98	0.0	0.2	11.141	B
C-AB	34.64	34.64	8.66	0.00	517.05	0.067	34.33	0.0	0.1	8.198	A
C-A	292.85	292.85	73.21	0.00			292.85				
A-B	34.63	34.63	8.66	0.00			34.63				
A-C	435.15	435.15	108.79	0.00			435.15				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	386.30	0.191	73.45	0.2	0.3	12.647	B
C-AB	41.39	41.39	10.35	0.00	494.94	0.084	41.30	0.1	0.1	8.729	A
C-A	349.67	349.67	87.42	0.00			349.67				
A-B	41.35	41.35	10.34	0.00			41.35				
A-C	519.61	519.61	129.90	0.00			519.61				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	344.81	0.262	89.78	0.3	0.4	15.495	C
C-AB	50.76	50.76	12.69	0.00	464.69	0.109	50.62	0.1	0.1	9.560	A
C-A	428.19	428.19	107.05	0.00			428.19				
A-B	50.65	50.65	12.66	0.00			50.65				
A-C	636.39	636.39	159.10	0.00			636.39				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	344.78	0.262	90.27	0.4	0.4	15.556	C
C-AB	50.76	50.76	12.69	0.00	464.69	0.109	50.76	0.1	0.1	9.566	A
C-A	428.19	428.19	107.05	0.00			428.19				
A-B	50.65	50.65	12.66	0.00			50.65				
A-C	636.39	636.39	159.10	0.00			636.39				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	386.25	0.191	74.20	0.4	0.3	12.712	B
C-AB	41.39	41.39	10.35	0.00	494.94	0.084	41.52	0.1	0.1	8.735	A
C-A	349.67	349.67	87.42	0.00			349.67				
A-B	41.35	41.35	10.34	0.00			41.35				
A-C	519.61	519.61	129.90	0.00			519.61				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	415.59	0.149	62.01	0.3	0.2	11.210	B
C-AB	34.64	34.64	8.66	0.00	517.05	0.067	34.73	0.1	0.1	8.213	A
C-A	292.85	292.85	73.21	0.00			292.85				
A-B	34.63	34.63	8.66	0.00			34.63				
A-C	435.15	435.15	108.79	0.00			435.15				

DO SOMETHING SCENARIO - DS 2022, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D4	DS 2022	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	638.00	100.000
B - SITE ACCESS		ONE HOUR	✓	94.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	414.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	41.000	597.000
	B - SITE ACCESS	47.000	0.000	47.000
	C - SANTRY AVENUE (W)	373.000	41.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.06	0.94
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.30	16.49	0.5	C	86.26	129.38
C-AB	0.10	9.53	0.1	A	37.66	56.48
C-A					342.24	513.36
A-B					37.62	56.43
A-C					547.82	821.73

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	70.77	70.77	17.69	0.00	414.72	0.171	69.88	0.0	0.2	11.452	B
C-AB	30.87	30.87	7.72	0.00	514.41	0.060	30.60	0.0	0.1	8.181	A
C-A	280.81	280.81	70.20	0.00			280.81				
A-B	30.87	30.87	7.72	0.00			30.87				
A-C	449.45	449.45	112.36	0.00			449.45				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	84.50	84.50	21.13	0.00	385.23	0.219	84.18	0.2	0.3	13.139	B
C-AB	36.88	36.88	9.22	0.00	491.74	0.075	36.80	0.1	0.1	8.703	A
C-A	335.30	335.30	83.82	0.00			335.30				
A-B	36.86	36.86	9.21	0.00			36.86				
A-C	536.69	536.69	134.17	0.00			536.69				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	103.50	103.50	25.87	0.00	343.64	0.301	102.86	0.3	0.5	16.403	C
C-AB	45.21	45.21	11.30	0.00	460.63	0.098	45.09	0.1	0.1	9.526	A
C-A	410.61	410.61	102.65	0.00			410.61				
A-B	45.14	45.14	11.29	0.00			45.14				
A-C	657.31	657.31	164.33	0.00			657.31				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	103.50	103.50	25.87	0.00	343.60	0.301	103.47	0.5	0.5	16.487	C
C-AB	45.21	45.21	11.30	0.00	460.63	0.098	45.21	0.1	0.1	9.532	A
C-A	410.61	410.61	102.65	0.00			410.61				
A-B	45.14	45.14	11.29	0.00			45.14				
A-C	657.31	657.31	164.33	0.00			657.31				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	84.50	84.50	21.13	0.00	385.18	0.219	85.12	0.5	0.3	13.225	B
C-AB	36.88	36.88	9.22	0.00	491.74	0.075	37.00	0.1	0.1	8.710	A
C-A	335.30	335.30	83.82	0.00			335.30				
A-B	36.86	36.86	9.21	0.00			36.86				
A-C	536.69	536.69	134.17	0.00			536.69				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	70.77	70.77	17.69	0.00	414.64	0.171	71.11	0.3	0.2	11.540	B
C-AB	30.87	30.87	7.72	0.00	514.41	0.060	30.95	0.1	0.1	8.193	A
C-A	280.81	280.81	70.20	0.00			280.81				
A-B	30.87	30.87	7.72	0.00			30.87				
A-C	449.45	449.45	112.36	0.00			449.45				

DO SOMETHING SCENARIO - DS 2027, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2027	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	673.00	100.000
B - SITE ACCESS		ONE HOUR	✓	82.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	468.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	46.000	627.000
	B - SITE ACCESS	41.000	0.000	41.000
	C - SANTRY AVENUE (W)	422.000	46.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.07	0.93
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.28	16.74	0.4	C	75.24	112.87
C-AB	0.11	9.88	0.1	A	42.27	63.41
C-A					387.17	580.76
A-B					42.21	63.32
A-C					575.35	863.02

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	403.96	0.153	60.95	0.0	0.2	11.521	B
C-AB	34.65	34.65	8.66	0.00	508.04	0.068	34.33	0.0	0.1	8.354	A
C-A	317.69	317.69	79.42	0.00			317.69				
A-B	34.63	34.63	8.66	0.00			34.63				
A-C	472.04	472.04	118.01	0.00			472.04				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	372.04	0.198	73.43	0.2	0.3	13.247	B
C-AB	41.39	41.39	10.35	0.00	484.22	0.085	41.30	0.1	0.1	8.937	A
C-A	379.33	379.33	94.83	0.00			379.33				
A-B	41.35	41.35	10.34	0.00			41.35				
A-C	563.66	563.66	140.92	0.00			563.66				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	326.82	0.276	89.71	0.3	0.4	16.659	C
C-AB	50.78	50.78	12.70	0.00	451.66	0.112	50.64	0.1	0.1	9.871	A
C-A	464.50	464.50	116.12	0.00			464.50				
A-B	50.65	50.65	12.66	0.00			50.65				
A-C	690.34	690.34	172.58	0.00			690.34				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	326.78	0.276	90.26	0.4	0.4	16.739	C
C-AB	50.78	50.78	12.70	0.00	451.66	0.112	50.78	0.1	0.1	9.877	A
C-A	464.50	464.50	116.12	0.00			464.50				
A-B	50.65	50.65	12.66	0.00			50.65				
A-C	690.34	690.34	172.58	0.00			690.34				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	371.98	0.198	74.27	0.4	0.3	13.325	B
C-AB	41.39	41.39	10.35	0.00	484.22	0.085	41.53	0.1	0.1	8.949	A
C-A	379.33	379.33	94.83	0.00			379.33				
A-B	41.35	41.35	10.34	0.00			41.35				
A-C	563.66	563.66	140.92	0.00			563.66				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	403.85	0.153	62.03	0.3	0.2	11.597	B
C-AB	34.65	34.65	8.66	0.00	508.04	0.068	34.74	0.1	0.1	8.368	A
C-A	317.69	317.69	79.42	0.00			317.69				
A-B	34.63	34.63	8.66	0.00			34.63				
A-C	472.04	472.04	118.01	0.00			472.04				

DO SOMETHING SCENARIO - DS 2027, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2027	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	688.00	100.000
B - SITE ACCESS		ONE HOUR	✓	94.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	445.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	41.000	647.000
	B - SITE ACCESS	47.000	0.000	47.000
	C - SANTRY AVENUE (W)	404.000	41.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.06	0.94
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.32	17.82	0.5	C	86.26	129.38
C-AB	0.10	9.85	0.1	A	37.66	56.49
C-A					370.68	556.02
A-B					37.62	56.43
A-C					593.70	890.55

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	70.77	70.77	17.69	0.00	402.99	0.176	69.85	0.0	0.2	11.856	B
C-AB	30.88	30.88	7.72	0.00	505.21	0.061	30.59	0.0	0.1	8.337	A
C-A	304.14	304.14	76.04	0.00			304.14				
A-B	30.87	30.87	7.72	0.00			30.87				
A-C	487.10	487.10	121.77	0.00			487.10				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	84.50	84.50	21.13	0.00	370.98	0.228	84.15	0.2	0.3	13.789	B
C-AB	36.88	36.88	9.22	0.00	480.78	0.077	36.80	0.1	0.1	8.918	A
C-A	363.16	363.16	90.79	0.00			363.16				
A-B	36.86	36.86	9.21	0.00			36.86				
A-C	581.64	581.64	145.41	0.00			581.64				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	103.50	103.50	25.87	0.00	325.68	0.318	102.77	0.3	0.5	17.705	C
C-AB	45.23	45.23	11.31	0.00	447.28	0.101	45.10	0.1	0.1	9.843	A
C-A	444.73	444.73	111.18	0.00			444.73				
A-B	45.14	45.14	11.29	0.00			45.14				
A-C	712.36	712.36	178.09	0.00			712.36				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	103.50	103.50	25.87	0.00	325.65	0.318	103.47	0.5	0.5	17.818	C
C-AB	45.23	45.23	11.31	0.00	447.28	0.101	45.23	0.1	0.1	9.849	A
C-A	444.73	444.73	111.18	0.00			444.73				
A-B	45.14	45.14	11.29	0.00			45.14				
A-C	712.36	712.36	178.09	0.00			712.36				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	84.50	84.50	21.13	0.00	370.93	0.228	85.20	0.5	0.3	13.894	B
C-AB	36.88	36.88	9.22	0.00	480.78	0.077	37.01	0.1	0.1	8.927	A
C-A	363.16	363.16	90.79	0.00			363.16				
A-B	36.86	36.86	9.21	0.00			36.86				
A-C	581.64	581.64	145.41	0.00			581.64				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	70.77	70.77	17.69	0.00	402.90	0.176	71.14	0.3	0.2	11.949	B
C-AB	30.88	30.88	7.72	0.00	505.21	0.061	30.96	0.1	0.1	8.352	A
C-A	304.14	304.14	76.04	0.00			304.14				
A-B	30.87	30.87	7.72	0.00			30.87				
A-C	487.10	487.10	121.77	0.00			487.10				

DO SOMETHING SCENARIO - DS 2037, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2037	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	720.00	100.000
B - SITE ACCESS		ONE HOUR	✓	82.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	500.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	46.000	674.000
	B - SITE ACCESS	41.000	0.000	41.000
	C - SANTRY AVENUE (W)	454.000	46.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.06	0.94
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.29	18.08	0.4	C	75.24	112.87
C-AB	0.12	10.20	0.1	B	42.29	63.43
C-A					416.52	624.79
A-B					42.21	63.32
A-C					618.47	927.71

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	392.61	0.157	60.93	0.0	0.2	11.911	B
C-AB	34.65	34.65	8.66	0.00	499.40	0.069	34.32	0.0	0.1	8.508	A
C-A	341.78	341.78	85.44	0.00			341.78				
A-B	34.63	34.63	8.66	0.00			34.63				
A-C	507.42	507.42	126.86	0.00			507.42				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	358.21	0.206	73.40	0.2	0.3	13.888	B
C-AB	41.40	41.40	10.35	0.00	473.94	0.087	41.31	0.1	0.1	9.151	A
C-A	408.09	408.09	102.02	0.00			408.09				
A-B	41.35	41.35	10.34	0.00			41.35				
A-C	605.91	605.91	151.48	0.00			605.91				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	309.27	0.292	89.64	0.3	0.4	17.975	C
C-AB	50.81	50.81	12.70	0.00	439.19	0.116	50.65	0.1	0.1	10.184	B
C-A	499.70	499.70	124.93	0.00			499.70				
A-B	50.65	50.65	12.66	0.00			50.65				
A-C	742.09	742.09	185.52	0.00			742.09				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	90.28	90.28	22.57	0.00	309.22	0.292	90.26	0.4	0.4	18.079	C
C-AB	50.81	50.81	12.70	0.00	439.19	0.116	50.80	0.1	0.1	10.195	B
C-A	499.70	499.70	124.93	0.00			499.70				
A-B	50.65	50.65	12.66	0.00			50.65				
A-C	742.09	742.09	185.52	0.00			742.09				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	73.72	73.72	18.43	0.00	358.15	0.206	74.34	0.4	0.3	13.982	B
C-AB	41.40	41.40	10.35	0.00	473.94	0.087	41.55	0.1	0.1	9.161	A
C-A	408.09	408.09	102.02	0.00			408.09				
A-B	41.35	41.35	10.34	0.00			41.35				
A-C	605.91	605.91	151.48	0.00			605.91				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	61.73	61.73	15.43	0.00	392.50	0.157	62.06	0.3	0.2	11.997	B
C-AB	34.65	34.65	8.66	0.00	499.40	0.069	34.74	0.1	0.1	8.523	A
C-A	341.78	341.78	85.44	0.00			341.78				
A-B	34.63	34.63	8.66	0.00			34.63				
A-C	507.42	507.42	126.86	0.00			507.42				

DO SOMETHING SCENARIO - DS 2037, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	1.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SANTRY AVENUE (E)		Major
B	SITE ACCESS		Minor
C	SANTRY AVENUE (W)		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 - SANTRY AVENUE (W)	6.00			100.0	✓	3.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.091	0.231	0.145	0.330
1	B-C	635.940	0.097	0.246	-	-
1	C-B	631.874	0.245	0.245	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2037	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SANTRY AVENUE (E)		ONE HOUR	✓	737.00	100.000
B - SITE ACCESS		ONE HOUR	✓	94.00	100.000
C - SANTRY AVENUE (W)		ONE HOUR	✓	476.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.000	41.000	696.000
	B - SITE ACCESS	47.000	0.000	47.000
	C - SANTRY AVENUE (W)	435.000	41.000	0.000

Proportions

		To		
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	0.00	0.06	0.94
	B - SITE ACCESS	0.50	0.00	0.50
	C - SANTRY AVENUE (W)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle proportion

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SANTRY AVENUE (W)	10	10	10

Average PCU Per Veh

	To			
		A - SANTRY AVENUE (E)	B - SITE ACCESS	C - SANTRY AVENUE (W)
From	A - SANTRY AVENUE (E)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SANTRY AVENUE (W)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.34	19.38	0.5	C	86.26	129.38
C-AB	0.10	10.18	0.1	B	37.67	56.51
C-A					399.12	598.67
A-B					37.62	56.43
A-C					638.66	957.99

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	70.77	70.77	17.69	0.00	391.37	0.181	69.81	0.0	0.2	12.281	B
C-AB	30.88	30.88	7.72	0.00	496.20	0.062	30.59	0.0	0.1	8.499	A
C-A	327.48	327.48	81.87	0.00			327.48				
A-B	30.87	30.87	7.72	0.00			30.87				
A-C	523.99	523.99	131.00	0.00			523.99				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	84.50	84.50	21.13	0.00	356.84	0.237	84.12	0.2	0.3	14.499	B
C-AB	36.89	36.89	9.22	0.00	470.05	0.078	36.81	0.1	0.1	9.140	A
C-A	391.03	391.03	97.76	0.00			391.03				
A-B	36.86	36.86	9.21	0.00			36.86				
A-C	625.69	625.69	156.42	0.00			625.69				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	103.50	103.50	25.87	0.00	307.77	0.336	102.67	0.3	0.5	19.227	C
C-AB	45.25	45.25	11.31	0.00	434.22	0.104	45.11	0.1	0.1	10.174	B
C-A	478.84	478.84	119.71	0.00			478.84				
A-B	45.14	45.14	11.29	0.00			45.14				
A-C	766.31	766.31	191.58	0.00			766.31				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	103.50	103.50	25.87	0.00	307.74	0.336	103.46	0.5	0.5	19.377	C
C-AB	45.25	45.25	11.31	0.00	434.22	0.104	45.24	0.1	0.1	10.180	B
C-A	478.84	478.84	119.71	0.00			478.84				
A-B	45.14	45.14	11.29	0.00			45.14				
A-C	766.31	766.31	191.58	0.00			766.31				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	84.50	84.50	21.13	0.00	356.79	0.237	85.30	0.5	0.3	14.628	B
C-AB	36.89	36.89	9.22	0.00	470.05	0.078	37.02	0.1	0.1	9.147	A
C-A	391.03	391.03	97.76	0.00			391.03				
A-B	36.86	36.86	9.21	0.00			36.86				
A-C	625.69	625.69	156.42	0.00			625.69				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	70.77	70.77	17.69	0.00	391.28	0.181	71.17	0.3	0.2	12.386	B
C-AB	30.88	30.88	7.72	0.00	496.20	0.062	30.96	0.1	0.1	8.512	A
C-A	327.48	327.48	81.87	0.00			327.48				
A-B	30.87	30.87	7.72	0.00			30.87				
A-C	523.99	523.99	131.00	0.00			523.99				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Swords Road Site Access 30.04.21.j9
Path: G:\2020\p200060\calcs\Picady
Report generation date: 06/05/2021 10:49:23

Summary of junction performance

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

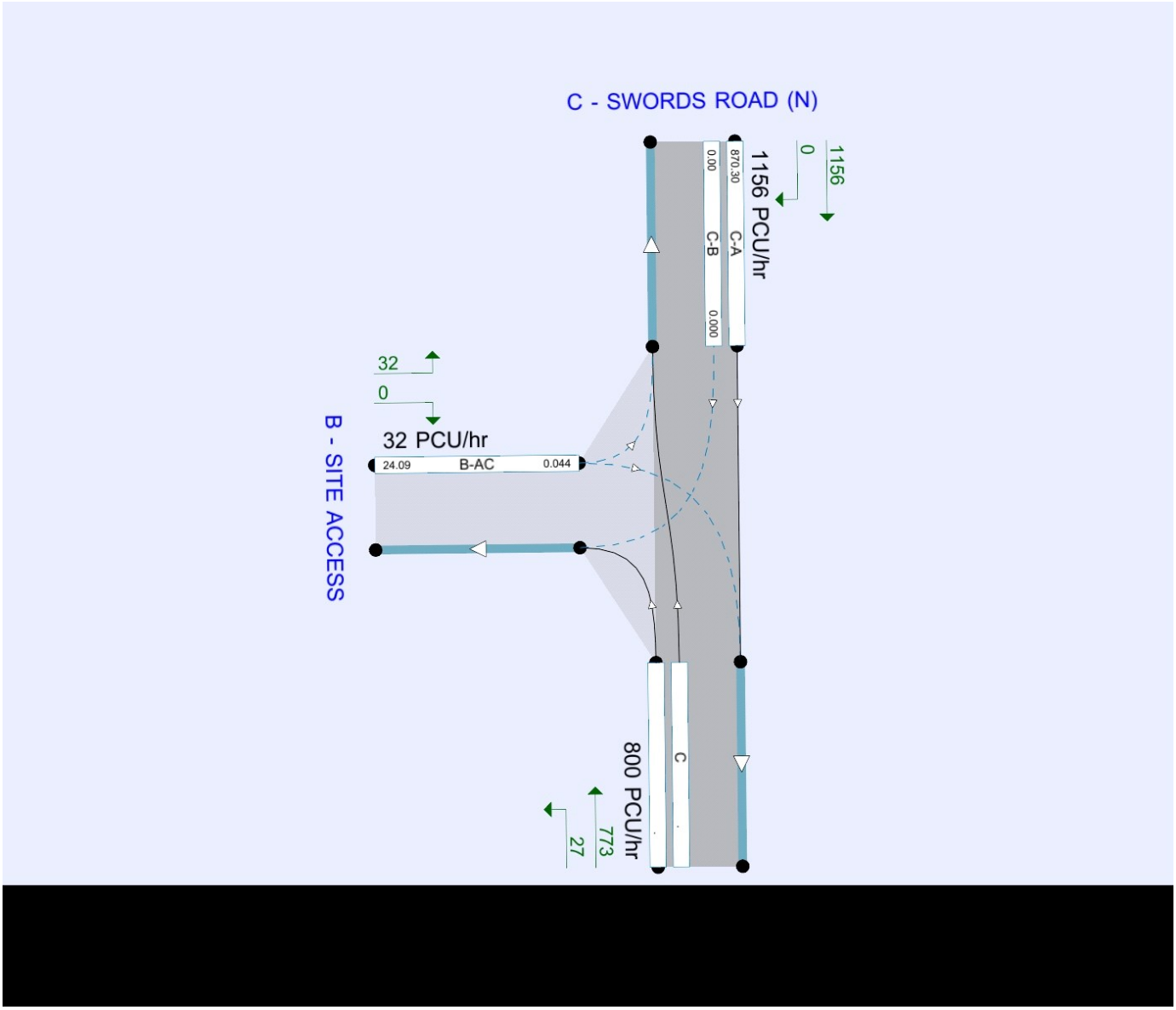
File summary

File Description

Title	MIXED USE DEVELOPMENT
Location	SANTRY AVENUE
Site number	
Date	30/04/2021
Version	
Status	
Identifier	SAS
Client	Dwyer Nolan Ltd
Jobnumber	200060
Enumerator	HEADOFFICE"saeeds
Description	SWORDS ROAD ACCESS

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
DN 2022	AM	ONE HOUR	07:45	09:15	15	✓
DN 2022	PM	ONE HOUR	16:45	18:15	15	✓
DS 2022	AM	ONE HOUR	07:45	09:15	15	✓
DS 2022	PM	ONE HOUR	16:45	18:15	15	✓
DN 2027	AM	ONE HOUR	07:45	09:15	15	✓
DN 2027	PM	ONE HOUR	16:45	18:15	15	✓
DS 2027	AM	ONE HOUR	07:45	09:15	15	✓
DS 2027	PM	ONE HOUR	16:45	18:15	15	✓
DN 2037	AM	ONE HOUR	07:45	09:15	15	✓
DN 2037	PM	ONE HOUR	16:45	18:15	15	✓
DS 2037	AM	ONE HOUR	07:45	09:15	15	✓
DS 2037	PM	ONE HOUR	16:45	18:15	15	✓

DO NOTHING SCENARIO - DN 2022, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D1	DN 2022	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	644.00	100.000
B - SITE ACCESS		ONE HOUR	✓	16.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1051.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	28.000	616.000
	B - SITE ACCESS	0.000	0.000	16.000
	C - SWORDS ROAD (N)	1051.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	7.69	0.0	A	14.68	22.02
C-A					964.42	1446.62
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					25.69	38.54
A-C					565.25	847.88

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	12.05	12.05	3.01	0.00	565.16	0.021	11.95	0.0	0.0	7.158	A
C-A	791.25	791.25	197.81	0.00			791.25				
C-B	0.00	0.00	0.00	0.00	559.65	0.000	0.00	0.0	0.0	0.000	A
A-B	21.08	21.08	5.27	0.00			21.08				
A-C	463.76	463.76	115.94	0.00			463.76				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	14.38	14.38	3.60	0.00	551.43	0.026	14.36	0.0	0.0	7.372	A
C-A	944.83	944.83	236.21	0.00			944.83				
C-B	0.00	0.00	0.00	0.00	545.63	0.000	0.00	0.0	0.0	0.000	A
A-B	25.17	25.17	6.29	0.00			25.17				
A-C	553.77	553.77	138.44	0.00			553.77				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17.62	17.62	4.40	0.00	532.43	0.033	17.58	0.0	0.0	7.691	A
C-A	1157.17	1157.17	289.29	0.00			1157.17				
C-B	0.00	0.00	0.00	0.00	526.25	0.000	0.00	0.0	0.0	0.000	A
A-B	30.83	30.83	7.71	0.00			30.83				
A-C	678.23	678.23	169.56	0.00			678.23				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17.62	17.62	4.40	0.00	532.43	0.033	17.62	0.0	0.0	7.691	A
C-A	1157.17	1157.17	289.29	0.00			1157.17				
C-B	0.00	0.00	0.00	0.00	526.25	0.000	0.00	0.0	0.0	0.000	A
A-B	30.83	30.83	7.71	0.00			30.83				
A-C	678.23	678.23	169.56	0.00			678.23				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	14.38	14.38	3.60	0.00	551.43	0.026	14.41	0.0	0.0	7.376	A
C-A	944.83	944.83	236.21	0.00			944.83				
C-B	0.00	0.00	0.00	0.00	545.63	0.000	0.00	0.0	0.0	0.000	A
A-B	25.17	25.17	6.29	0.00			25.17				
A-C	553.77	553.77	138.44	0.00			553.77				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	12.05	12.05	3.01	0.00	565.16	0.021	12.07	0.0	0.0	7.161	A
C-A	791.25	791.25	197.81	0.00			791.25				
C-B	0.00	0.00	0.00	0.00	559.65	0.000	0.00	0.0	0.0	0.000	A
A-B	21.08	21.08	5.27	0.00			21.08				
A-C	463.76	463.76	115.94	0.00			463.76				

DO NOTHING SCENARIO - DN 2022, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D2	DN 2022	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	680.00	100.000
B - SITE ACCESS		ONE HOUR	✓	27.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	992.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	17.000	663.000
	B - SITE ACCESS	0.000	0.000	27.000
	C - SWORDS ROAD (N)	992.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.03	0.98
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.99	0.1	A	24.78	37.16
C-A					910.28	1365.41
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					15.60	23.40
A-C					608.38	912.57

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	560.35	0.036	20.16	0.0	0.0	7.329	A
C-A	746.83	746.83	186.71	0.00			746.83				
C-B	0.00	0.00	0.00	0.00	555.62	0.000	0.00	0.0	0.0	0.000	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	499.14	499.14	124.79	0.00			499.14				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	545.68	0.044	24.23	0.0	0.1	7.593	A
C-A	891.79	891.79	222.95	0.00			891.79				
C-B	0.00	0.00	0.00	0.00	540.81	0.000	0.00	0.0	0.0	0.000	A
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	596.02	596.02	149.01	0.00			596.02				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	525.39	0.057	29.67	0.1	0.1	7.987	A
C-A	1092.21	1092.21	273.05	0.00			1092.21				
C-B	0.00	0.00	0.00	0.00	520.35	0.000	0.00	0.0	0.0	0.000	A
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	729.98	729.98	182.49	0.00			729.98				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	525.39	0.057	29.73	0.1	0.1	7.989	A
C-A	1092.21	1092.21	273.05	0.00			1092.21				
C-B	0.00	0.00	0.00	0.00	520.35	0.000	0.00	0.0	0.0	0.000	A
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	729.98	729.98	182.49	0.00			729.98				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	545.68	0.044	24.33	0.1	0.1	7.598	A
C-A	891.79	891.79	222.95	0.00			891.79				
C-B	0.00	0.00	0.00	0.00	540.81	0.000	0.00	0.0	0.0	0.000	A
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	596.02	596.02	149.01	0.00			596.02				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	560.35	0.036	20.37	0.1	0.0	7.336	A
C-A	746.83	746.83	186.71	0.00			746.83				
C-B	0.00	0.00	0.00	0.00	555.62	0.000	0.00	0.0	0.0	0.000	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	499.14	499.14	124.79	0.00			499.14				

DO NOTHING SCENARIO - DN 2027, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D5	DN 2027	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	695.00	100.000
B - SITE ACCESS		ONE HOUR	✓	16.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1138.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	28.000	667.000
	B - SITE ACCESS	0.000	0.000	16.000
	C - SWORDS ROAD (N)	1138.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	7.82	0.0	A	14.68	22.02
C-A					1044.25	1566.37
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					25.69	38.54
A-C					612.05	918.08

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	12.05	12.05	3.01	0.00	559.41	0.022	11.95	0.0	0.0	7.233	A
C-A	856.75	856.75	214.19	0.00			856.75				
C-B	0.00	0.00	0.00	0.00	553.93	0.000	0.00	0.0	0.0	0.000	A
A-B	21.08	21.08	5.27	0.00			21.08				
A-C	502.15	502.15	125.54	0.00			502.15				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	14.38	14.38	3.60	0.00	544.55	0.026	14.36	0.0	0.0	7.468	A
C-A	1023.04	1023.04	255.76	0.00			1023.04				
C-B	0.00	0.00	0.00	0.00	538.80	0.000	0.00	0.0	0.0	0.000	A
A-B	25.17	25.17	6.29	0.00			25.17				
A-C	599.62	599.62	149.90	0.00			599.62				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17.62	17.62	4.40	0.00	524.01	0.034	17.58	0.0	0.0	7.819	A
C-A	1252.96	1252.96	313.24	0.00			1252.96				
C-B	0.00	0.00	0.00	0.00	517.89	0.000	0.00	0.0	0.0	0.000	A
A-B	30.83	30.83	7.71	0.00			30.83				
A-C	734.38	734.38	183.60	0.00			734.38				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17.62	17.62	4.40	0.00	524.01	0.034	17.62	0.0	0.0	7.819	A
C-A	1252.96	1252.96	313.24	0.00			1252.96				
C-B	0.00	0.00	0.00	0.00	517.89	0.000	0.00	0.0	0.0	0.000	A
A-B	30.83	30.83	7.71	0.00			30.83				
A-C	734.38	734.38	183.60	0.00			734.38				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	14.38	14.38	3.60	0.00	544.55	0.026	14.42	0.0	0.0	7.469	A
C-A	1023.04	1023.04	255.76	0.00			1023.04				
C-B	0.00	0.00	0.00	0.00	538.80	0.000	0.00	0.0	0.0	0.000	A
A-B	25.17	25.17	6.29	0.00			25.17				
A-C	599.62	599.62	149.90	0.00			599.62				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	12.05	12.05	3.01	0.00	559.41	0.022	12.07	0.0	0.0	7.237	A
C-A	856.75	856.75	214.19	0.00			856.75				
C-B	0.00	0.00	0.00	0.00	553.93	0.000	0.00	0.0	0.0	0.000	A
A-B	21.08	21.08	5.27	0.00			21.08				
A-C	502.15	502.15	125.54	0.00			502.15				

DO NOTHING SCENARIO - DN 2027, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D6	DN 2027	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	735.00	100.000
B - SITE ACCESS		ONE HOUR	✓	27.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1074.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	17.000	718.000
	B - SITE ACCESS	0.000	0.000	27.000
	C - SWORDS ROAD (N)	1074.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.02	0.98
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	8.14	0.1	A	24.78	37.16
C-A					985.52	1478.28
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					15.60	23.40
A-C					658.85	988.27

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	554.14	0.037	20.16	0.0	0.0	7.414	A
C-A	808.56	808.56	202.14	0.00			808.56				
C-B	0.00	0.00	0.00	0.00	549.45	0.000	0.00	0.0	0.0	0.000	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	540.55	540.55	135.14	0.00			540.55				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	538.27	0.045	24.23	0.0	0.1	7.704	A
C-A	965.50	965.50	241.38	0.00			965.50				
C-B	0.00	0.00	0.00	0.00	533.45	0.000	0.00	0.0	0.0	0.000	A
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	516.31	0.058	29.67	0.1	0.1	8.136	A
C-A	1182.50	1182.50	295.62	0.00			1182.50				
C-B	0.00	0.00	0.00	0.00	511.33	0.000	0.00	0.0	0.0	0.000	A
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	516.31	0.058	29.73	0.1	0.1	8.138	A
C-A	1182.50	1182.50	295.62	0.00			1182.50				
C-B	0.00	0.00	0.00	0.00	511.33	0.000	0.00	0.0	0.0	0.000	A
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	538.27	0.045	24.33	0.1	0.1	7.707	A
C-A	965.50	965.50	241.38	0.00			965.50				
C-B	0.00	0.00	0.00	0.00	533.45	0.000	0.00	0.0	0.0	0.000	A
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	554.14	0.037	20.37	0.1	0.0	7.421	A
C-A	808.56	808.56	202.14	0.00			808.56				
C-B	0.00	0.00	0.00	0.00	549.45	0.000	0.00	0.0	0.0	0.000	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	540.55	540.55	135.14	0.00			540.55				

DO NOTHING SCENARIO - DN 2037, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D9	DN 2037	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	746.00	100.000
B - SITE ACCESS		ONE HOUR	✓	16.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1223.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	28.000	718.000
	B - SITE ACCESS	0.000	0.000	16.000
	C - SWORDS ROAD (N)	1223.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	7.95	0.0	A	14.68	22.02
C-A					1122.25	1683.37
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					25.69	38.54
A-C					658.85	988.27

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	12.05	12.05	3.01	0.00	553.65	0.022	11.95	0.0	0.0	7.310	A
C-A	920.74	920.74	230.18	0.00			920.74				
C-B	0.00	0.00	0.00	0.00	548.21	0.000	0.00	0.0	0.0	0.000	A
A-B	21.08	21.08	5.27	0.00			21.08				
A-C	540.55	540.55	135.14	0.00			540.55				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	14.38	14.38	3.60	0.00	537.68	0.027	14.36	0.0	0.0	7.566	A
C-A	1099.45	1099.45	274.86	0.00			1099.45				
C-B	0.00	0.00	0.00	0.00	531.98	0.000	0.00	0.0	0.0	0.000	A
A-B	25.17	25.17	6.29	0.00			25.17				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17.62	17.62	4.40	0.00	515.60	0.034	17.58	0.0	0.0	7.951	A
C-A	1346.55	1346.55	336.64	0.00			1346.55				
C-B	0.00	0.00	0.00	0.00	509.52	0.000	0.00	0.0	0.0	0.000	A
A-B	30.83	30.83	7.71	0.00			30.83				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17.62	17.62	4.40	0.00	515.60	0.034	17.62	0.0	0.0	7.951	A
C-A	1346.55	1346.55	336.64	0.00			1346.55				
C-B	0.00	0.00	0.00	0.00	509.52	0.000	0.00	0.0	0.0	0.000	A
A-B	30.83	30.83	7.71	0.00			30.83				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	14.38	14.38	3.60	0.00	537.68	0.027	14.42	0.0	0.0	7.567	A
C-A	1099.45	1099.45	274.86	0.00			1099.45				
C-B	0.00	0.00	0.00	0.00	531.98	0.000	0.00	0.0	0.0	0.000	A
A-B	25.17	25.17	6.29	0.00			25.17				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	12.05	12.05	3.01	0.00	553.65	0.022	12.07	0.0	0.0	7.311	A
C-A	920.74	920.74	230.18	0.00			920.74				
C-B	0.00	0.00	0.00	0.00	548.21	0.000	0.00	0.0	0.0	0.000	A
A-B	21.08	21.08	5.27	0.00			21.08				
A-C	540.55	540.55	135.14	0.00			540.55				

DO NOTHING SCENARIO - DN 2037, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	DO NOTHING SCENARIO	✓	D1,D2,D5,D6,D9,D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D10	DN 2037	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	790.00	100.000
B - SITE ACCESS		ONE HOUR	✓	27.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1153.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	17.000	773.000
	B - SITE ACCESS	0.000	0.000	27.000
	C - SWORDS ROAD (N)	1153.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.02	0.98
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	8.29	0.1	A	24.78	37.16
C-A					1058.01	1587.02
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					15.60	23.40
A-C					709.32	1063.98

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	547.93	0.037	20.16	0.0	0.0	7.501	A
C-A	868.04	868.04	217.01	0.00			868.04				
C-B	0.00	0.00	0.00	0.00	543.28	0.000	0.00	0.0	0.0	0.000	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	581.95	581.95	145.49	0.00			581.95				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	530.85	0.046	24.23	0.0	0.1	7.816	A
C-A	1036.52	1036.52	259.13	0.00			1036.52				
C-B	0.00	0.00	0.00	0.00	526.08	0.000	0.00	0.0	0.0	0.000	A
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	694.91	694.91	173.73	0.00			694.91				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	507.23	0.059	29.66	0.1	0.1	8.291	A
C-A	1269.48	1269.48	317.37	0.00			1269.48				
C-B	0.00	0.00	0.00	0.00	502.31	0.000	0.00	0.0	0.0	0.000	A
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	851.09	851.09	212.77	0.00			851.09				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	507.23	0.059	29.73	0.1	0.1	8.292	A
C-A	1269.48	1269.48	317.37	0.00			1269.48				
C-B	0.00	0.00	0.00	0.00	502.31	0.000	0.00	0.0	0.0	0.000	A
A-B	18.72	18.72	4.68	0.00			18.72				
A-C	851.09	851.09	212.77	0.00			851.09				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	530.85	0.046	24.33	0.1	0.1	7.820	A
C-A	1036.52	1036.52	259.13	0.00			1036.52				
C-B	0.00	0.00	0.00	0.00	526.08	0.000	0.00	0.0	0.0	0.000	A
A-B	15.28	15.28	3.82	0.00			15.28				
A-C	694.91	694.91	173.73	0.00			694.91				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	547.93	0.037	20.37	0.1	0.0	7.508	A
C-A	868.04	868.04	217.01	0.00			868.04				
C-B	0.00	0.00	0.00	0.00	543.28	0.000	0.00	0.0	0.0	0.000	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	581.95	581.95	145.49	0.00			581.95				

DO SOMETHING SCENARIO - DS 2022, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D3	DS 2022	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	647.00	100.000
B - SITE ACCESS		ONE HOUR	✓	27.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1058.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	31.000	616.000
	B - SITE ACCESS	0.000	0.000	27.000
	C - SWORDS ROAD (N)	1058.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.05	0.95
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.88	0.1	A	24.78	37.16
C-A					970.84	1456.26
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					28.45	42.67
A-C					565.25	847.88

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	565.03	0.036	20.16	0.0	0.0	7.266	A
C-A	796.52	796.52	199.13	0.00			796.52				
C-B	0.00	0.00	0.00	0.00	559.32	0.000	0.00	0.0	0.0	0.000	A
A-B	23.34	23.34	5.83	0.00			23.34				
A-C	463.76	463.76	115.94	0.00			463.76				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	551.27	0.044	24.23	0.0	0.1	7.513	A
C-A	951.12	951.12	237.78	0.00			951.12				
C-B	0.00	0.00	0.00	0.00	545.23	0.000	0.00	0.0	0.0	0.000	A
A-B	27.87	27.87	6.97	0.00			27.87				
A-C	553.77	553.77	138.44	0.00			553.77				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	532.24	0.056	29.67	0.1	0.1	7.878	A
C-A	1164.88	1164.88	291.22	0.00			1164.88				
C-B	0.00	0.00	0.00	0.00	525.76	0.000	0.00	0.0	0.0	0.000	A
A-B	34.13	34.13	8.53	0.00			34.13				
A-C	678.23	678.23	169.56	0.00			678.23				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	532.24	0.056	29.73	0.1	0.1	7.880	A
C-A	1164.88	1164.88	291.22	0.00			1164.88				
C-B	0.00	0.00	0.00	0.00	525.76	0.000	0.00	0.0	0.0	0.000	A
A-B	34.13	34.13	8.53	0.00			34.13				
A-C	678.23	678.23	169.56	0.00			678.23				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	551.27	0.044	24.33	0.1	0.1	7.517	A
C-A	951.12	951.12	237.78	0.00			951.12				
C-B	0.00	0.00	0.00	0.00	545.23	0.000	0.00	0.0	0.0	0.000	A
A-B	27.87	27.87	6.97	0.00			27.87				
A-C	553.77	553.77	138.44	0.00			553.77				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	565.03	0.036	20.37	0.1	0.0	7.272	A
C-A	796.52	796.52	199.13	0.00			796.52				
C-B	0.00	0.00	0.00	0.00	559.32	0.000	0.00	0.0	0.0	0.000	A
A-B	23.34	23.34	5.83	0.00			23.34				
A-C	463.76	463.76	115.94	0.00			463.76				

DO SOMETHING SCENARIO - DS 2022, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D4	DS 2022	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	690.00	100.000
B - SITE ACCESS		ONE HOUR	✓	32.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	995.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	27.000	663.000
	B - SITE ACCESS	0.000	0.000	32.000
	C - SWORDS ROAD (N)	995.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	8.09	0.1	A	29.36	44.05
C-A					913.03	1369.54
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					24.78	37.16
A-C					608.38	912.57

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.09	24.09	6.02	0.00	559.90	0.043	23.90	0.0	0.0	7.386	A
C-A	749.09	749.09	187.27	0.00			749.09				
C-B	0.00	0.00	0.00	0.00	554.49	0.000	0.00	0.0	0.0	0.000	A
A-B	20.33	20.33	5.08	0.00			20.33				
A-C	499.14	499.14	124.79	0.00			499.14				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	28.77	28.77	7.19	0.00	545.14	0.053	28.72	0.0	0.1	7.667	A
C-A	894.48	894.48	223.62	0.00			894.48				
C-B	0.00	0.00	0.00	0.00	539.47	0.000	0.00	0.0	0.0	0.000	A
A-B	24.27	24.27	6.07	0.00			24.27				
A-C	596.02	596.02	149.01	0.00			596.02				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	35.23	35.23	8.81	0.00	524.74	0.067	35.16	0.1	0.1	8.087	A
C-A	1095.52	1095.52	273.88	0.00			1095.52				
C-B	0.00	0.00	0.00	0.00	518.71	0.000	0.00	0.0	0.0	0.000	A
A-B	29.73	29.73	7.43	0.00			29.73				
A-C	729.98	729.98	182.49	0.00			729.98				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	35.23	35.23	8.81	0.00	524.74	0.067	35.23	0.1	0.1	8.089	A
C-A	1095.52	1095.52	273.88	0.00			1095.52				
C-B	0.00	0.00	0.00	0.00	518.71	0.000	0.00	0.0	0.0	0.000	A
A-B	29.73	29.73	7.43	0.00			29.73				
A-C	729.98	729.98	182.49	0.00			729.98				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	28.77	28.77	7.19	0.00	545.14	0.053	28.83	0.1	0.1	7.672	A
C-A	894.48	894.48	223.62	0.00			894.48				
C-B	0.00	0.00	0.00	0.00	539.47	0.000	0.00	0.0	0.0	0.000	A
A-B	24.27	24.27	6.07	0.00			24.27				
A-C	596.02	596.02	149.01	0.00			596.02				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.09	24.09	6.02	0.00	559.90	0.043	24.14	0.1	0.0	7.391	A
C-A	749.09	749.09	187.27	0.00			749.09				
C-B	0.00	0.00	0.00	0.00	554.49	0.000	0.00	0.0	0.0	0.000	A
A-B	20.33	20.33	5.08	0.00			20.33				
A-C	499.14	499.14	124.79	0.00			499.14				

DO SOMETHING SCENARIO - DS 2027, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2027	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	698.00	100.000
B - SITE ACCESS		ONE HOUR	✓	27.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1145.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	31.000	667.000
	B - SITE ACCESS	0.000	0.000	27.000
	C - SWORDS ROAD (N)	1145.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	8.01	0.1	A	24.78	37.16
C-A					1050.67	1576.01
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					28.45	42.67
A-C					612.05	918.08

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	559.27	0.036	20.16	0.0	0.0	7.343	A
C-A	862.02	862.02	215.50	0.00			862.02				
C-B	0.00	0.00	0.00	0.00	553.60	0.000	0.00	0.0	0.0	0.000	A
A-B	23.34	23.34	5.83	0.00			23.34				
A-C	502.15	502.15	125.54	0.00			502.15				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	544.39	0.045	24.23	0.0	0.1	7.612	A
C-A	1029.33	1029.33	257.33	0.00			1029.33				
C-B	0.00	0.00	0.00	0.00	538.40	0.000	0.00	0.0	0.0	0.000	A
A-B	27.87	27.87	6.97	0.00			27.87				
A-C	599.62	599.62	149.90	0.00			599.62				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	523.82	0.057	29.67	0.1	0.1	8.012	A
C-A	1260.67	1260.67	315.17	0.00			1260.67				
C-B	0.00	0.00	0.00	0.00	517.40	0.000	0.00	0.0	0.0	0.000	A
A-B	34.13	34.13	8.53	0.00			34.13				
A-C	734.38	734.38	183.60	0.00			734.38				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	523.82	0.057	29.73	0.1	0.1	8.014	A
C-A	1260.67	1260.67	315.17	0.00			1260.67				
C-B	0.00	0.00	0.00	0.00	517.40	0.000	0.00	0.0	0.0	0.000	A
A-B	34.13	34.13	8.53	0.00			34.13				
A-C	734.38	734.38	183.60	0.00			734.38				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	544.39	0.045	24.33	0.1	0.1	7.614	A
C-A	1029.33	1029.33	257.33	0.00			1029.33				
C-B	0.00	0.00	0.00	0.00	538.40	0.000	0.00	0.0	0.0	0.000	A
A-B	27.87	27.87	6.97	0.00			27.87				
A-C	599.62	599.62	149.90	0.00			599.62				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	559.27	0.036	20.37	0.1	0.0	7.347	A
C-A	862.02	862.02	215.50	0.00			862.02				
C-B	0.00	0.00	0.00	0.00	553.60	0.000	0.00	0.0	0.0	0.000	A
A-B	23.34	23.34	5.83	0.00			23.34				
A-C	502.15	502.15	125.54	0.00			502.15				

DO SOMETHING SCENARIO - DS 2027, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2027	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	745.00	100.000
B - SITE ACCESS		ONE HOUR	✓	32.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1077.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	27.000	718.000
	B - SITE ACCESS	0.000	0.000	32.000
	C - SWORDS ROAD (N)	1077.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	8.24	0.1	A	29.36	44.05
C-A					988.27	1482.41
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					24.78	37.16
A-C					658.85	988.27

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.09	24.09	6.02	0.00	553.70	0.044	23.89	0.0	0.0	7.473	A
C-A	810.82	810.82	202.71	0.00			810.82				
C-B	0.00	0.00	0.00	0.00	548.33	0.000	0.00	0.0	0.0	0.000	A
A-B	20.33	20.33	5.08	0.00			20.33				
A-C	540.55	540.55	135.14	0.00			540.55				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	28.77	28.77	7.19	0.00	537.73	0.054	28.72	0.0	0.1	7.780	A
C-A	968.20	968.20	242.05	0.00			968.20				
C-B	0.00	0.00	0.00	0.00	532.11	0.000	0.00	0.0	0.0	0.000	A
A-B	24.27	24.27	6.07	0.00			24.27				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	35.23	35.23	8.81	0.00	515.66	0.068	35.16	0.1	0.1	8.240	A
C-A	1185.80	1185.80	296.45	0.00			1185.80				
C-B	0.00	0.00	0.00	0.00	509.69	0.000	0.00	0.0	0.0	0.000	A
A-B	29.73	29.73	7.43	0.00			29.73				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	35.23	35.23	8.81	0.00	515.66	0.068	35.23	0.1	0.1	8.242	A
C-A	1185.80	1185.80	296.45	0.00			1185.80				
C-B	0.00	0.00	0.00	0.00	509.69	0.000	0.00	0.0	0.0	0.000	A
A-B	29.73	29.73	7.43	0.00			29.73				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	28.77	28.77	7.19	0.00	537.73	0.054	28.84	0.1	0.1	7.782	A
C-A	968.20	968.20	242.05	0.00			968.20				
C-B	0.00	0.00	0.00	0.00	532.11	0.000	0.00	0.0	0.0	0.000	A
A-B	24.27	24.27	6.07	0.00			24.27				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.09	24.09	6.02	0.00	553.70	0.044	24.14	0.1	0.1	7.480	A
C-A	810.82	810.82	202.71	0.00			810.82				
C-B	0.00	0.00	0.00	0.00	548.33	0.000	0.00	0.0	0.0	0.000	A
A-B	20.33	20.33	5.08	0.00			20.33				
A-C	540.55	540.55	135.14	0.00			540.55				

DO SOMETHING SCENARIO - DS 2037, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2037	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	749.00	100.000
B - SITE ACCESS		ONE HOUR	✓	27.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1230.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	31.000	718.000
	B - SITE ACCESS	0.000	0.000	27.000
	C - SWORDS ROAD (N)	1230.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.04	0.96
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	8.15	0.1	A	24.78	37.16
C-A					1128.67	1693.00
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					28.45	42.67
A-C					658.85	988.27

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	553.52	0.037	20.16	0.0	0.0	7.423	A
C-A	926.01	926.01	231.50	0.00			926.01				
C-B	0.00	0.00	0.00	0.00	547.88	0.000	0.00	0.0	0.0	0.000	A
A-B	23.34	23.34	5.83	0.00			23.34				
A-C	540.55	540.55	135.14	0.00			540.55				

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	537.52	0.045	24.23	0.0	0.1	7.715	A
C-A	1105.74	1105.74	276.44	0.00			1105.74				
C-B	0.00	0.00	0.00	0.00	531.57	0.000	0.00	0.0	0.0	0.000	A
A-B	27.87	27.87	6.97	0.00			27.87				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	515.40	0.058	29.67	0.1	0.1	8.151	A
C-A	1354.26	1354.26	338.56	0.00			1354.26				
C-B	0.00	0.00	0.00	0.00	509.03	0.000	0.00	0.0	0.0	0.000	A
A-B	34.13	34.13	8.53	0.00			34.13				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	7.43	0.00	515.40	0.058	29.73	0.1	0.1	8.153	A
C-A	1354.26	1354.26	338.56	0.00			1354.26				
C-B	0.00	0.00	0.00	0.00	509.03	0.000	0.00	0.0	0.0	0.000	A
A-B	34.13	34.13	8.53	0.00			34.13				
A-C	790.53	790.53	197.63	0.00			790.53				

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.27	6.07	0.00	537.52	0.045	24.33	0.1	0.1	7.717	A
C-A	1105.74	1105.74	276.44	0.00			1105.74				
C-B	0.00	0.00	0.00	0.00	531.57	0.000	0.00	0.0	0.0	0.000	A
A-B	27.87	27.87	6.97	0.00			27.87				
A-C	645.47	645.47	161.37	0.00			645.47				

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.33	5.08	0.00	553.52	0.037	20.37	0.1	0.0	7.430	A
C-A	926.01	926.01	231.50	0.00			926.01				
C-B	0.00	0.00	0.00	0.00	547.88	0.000	0.00	0.0	0.0	0.000	A
A-B	23.34	23.34	5.83	0.00			23.34				
A-C	540.55	540.55	135.14	0.00			540.55				

DO SOMETHING SCENARIO - DS 2037, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	DO SOMETHING SCENARIO	✓	D3,D4,D7,D8,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	0.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	SWORDS ROAD (S)		Major
B	SITE ACCESS		Minor
C	SWORDS ROAD (N)		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 - SWORDS ROAD (N)	15.00			100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - SITE ACCESS	One lane	2.75	45	45

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	501.495	0.056	0.140	0.088	0.201
1	B-C	635.940	0.059	0.150	-	-
1	C-B	631.874	0.149	0.149	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2037	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - SWORDS ROAD (S)		ONE HOUR	✓	800.00	100.000
B - SITE ACCESS		ONE HOUR	✓	32.00	100.000
C - SWORDS ROAD (N)		ONE HOUR	✓	1156.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.000	27.000	773.000
	B - SITE ACCESS	0.000	0.000	32.000
	C - SWORDS ROAD (N)	1156.000	0.000	0.000

Proportions

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	0.00	0.03	0.97
	B - SITE ACCESS	0.00	0.00	1.00
	C - SWORDS ROAD (N)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	10	10	10
	B - SITE ACCESS	10	10	10
	C - SWORDS ROAD (N)	10	10	10

Average PCU Per Veh

		To		
		A - SWORDS ROAD (S)	B - SITE ACCESS	C - SWORDS ROAD (N)
From	A - SWORDS ROAD (S)	1.100	1.100	1.100
	B - SITE ACCESS	1.100	1.100	1.100
	C - SWORDS ROAD (N)	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	8.40	0.1	A	29.36	44.05
C-A					1060.77	1591.15
C-B	0.00	0.00	0.0	A	0.00	0.00
A-B					24.78	37.16
A-C					709.32	1063.98

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.09	24.09	6.02	0.00	547.49	0.044	23.89	0.0	0.1	7.562	A
C-A	870.30	870.30	217.57	0.00			870.30				
C-B	0.00	0.00	0.00	0.00	542.16	0.000	0.00	0.0	0.0	0.000	A
A-B	20.33	20.33	5.08	0.00			20.33				
A-C	581.95	581.95	145.49	0.00			581.95				

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	28.77	28.77	7.19	0.00	530.32	0.054	28.72	0.1	0.1	7.893	A
C-A	1039.22	1039.22	259.81	0.00			1039.22				
C-B	0.00	0.00	0.00	0.00	524.74	0.000	0.00	0.0	0.0	0.000	A
A-B	24.27	24.27	6.07	0.00			24.27				
A-C	694.91	694.91	173.73	0.00			694.91				

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	35.23	35.23	8.81	0.00	506.58	0.070	35.16	0.1	0.1	8.399	A
C-A	1272.78	1272.78	318.19	0.00			1272.78				
C-B	0.00	0.00	0.00	0.00	500.67	0.000	0.00	0.0	0.0	0.000	A
A-B	29.73	29.73	7.43	0.00			29.73				
A-C	851.09	851.09	212.77	0.00			851.09				

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	35.23	35.23	8.81	0.00	506.58	0.070	35.23	0.1	0.1	8.401	A
C-A	1272.78	1272.78	318.19	0.00			1272.78				
C-B	0.00	0.00	0.00	0.00	500.67	0.000	0.00	0.0	0.0	0.000	A
A-B	29.73	29.73	7.43	0.00			29.73				
A-C	851.09	851.09	212.77	0.00			851.09				

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	28.77	28.77	7.19	0.00	530.32	0.054	28.84	0.1	0.1	7.897	A
C-A	1039.22	1039.22	259.81	0.00			1039.22				
C-B	0.00	0.00	0.00	0.00	524.74	0.000	0.00	0.0	0.0	0.000	A
A-B	24.27	24.27	6.07	0.00			24.27				
A-C	694.91	694.91	173.73	0.00			694.91				

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	24.09	24.09	6.02	0.00	547.49	0.044	24.14	0.1	0.1	7.566	A
C-A	870.30	870.30	217.57	0.00			870.30				
C-B	0.00	0.00	0.00	0.00	542.16	0.000	0.00	0.0	0.0	0.000	A
A-B	20.33	20.33	5.08	0.00			20.33				
A-C	581.95	581.95	145.49	0.00			581.95				

APPENDIX E

Two Tier Bicycle Parking Rack

info@bikedocksolutions.com Call: 0800 612 6113

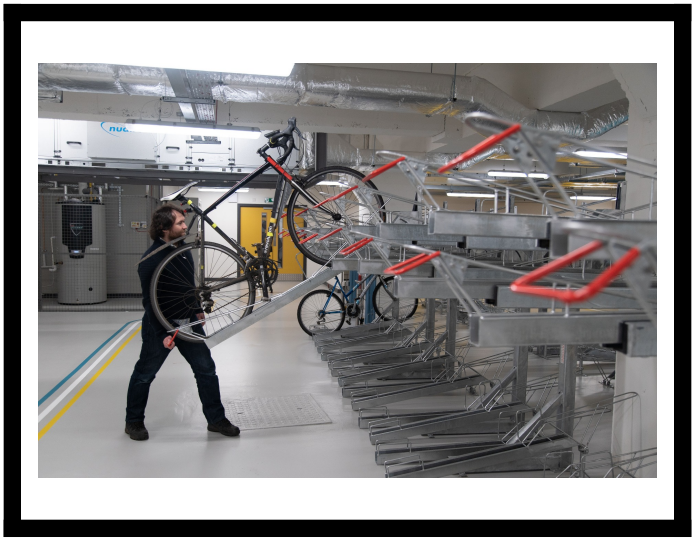
UK Aggregates Ltd, The Factory, 8 Portland Commercial Estate, Ripple Road, Barking, IG11 0TW

Two Tier Bike Rack - With Gas Strut (BDS)

Ex. VAT: £165.00 TOTAL Inc. VAT: £198.00

*Base price, not including any custom options.

Product Images



Description

The BDS Two Tier Bike Rack is a pioneering and user friendly cycle parking system, with excellent space saving bike storage, superb usability and high value; allowing you to house twice as many bikes in the same area and space as any standard bike rack.

The unique aspect of the space efficient and cost effective "Two Tier Bike Rack" makes it exclusive which has resulted in a growing requirement for it; especially in areas of high population densities such as stations, shopping centres, schools, car parks and offices.

For all types of bicycles

The Two Tier Bike Rack can accommodate all types of bicycles, such as mountain bikes and road bikes, which can be chained or D-locked on to the Two Tier Bike Rack for added security. The bicycle is well supported by wheel channels and the back wheel is stabilised by a gutter to lock the bicycle firmly into place.

Simple and easy

The lower cycle rack has a sloping wheel channel, so the user does not have to bend between the levels which makes the two tier cycle rack system simple and easy to use for all ages. This rack is excellent for space saving as the cycle stands are so compact with a centre to centre distance of only 375mm.

Capacity Calculator*

Estimate how many bikes you can store:

Length mm units:

▫ ▭ Calculate

Number of cycles stored: ▫

*Minimum height of 2.4 metres required

Benefits of the Two Tier Bike Rack include:

- Available in a galvanised or powder coated finish (please call us for a quote).
- Easy to use upper tier using stainless steel bearings for long life and minimum maintenance
- The bicycle is held stable in the wheel channels with locking bars for additional security
- Accommodates all cycle types (mountain bikes, town bikes etc)
- Bicycle frameand wheel can be chained for security
- Cycle is well supported when being stored
- Lower rack has a sloping wheel channel, so the user does not have to bend between the levels
- Can be extended indefinitely
- Double or single sided versions available
- Robust construction, hot dip galvanised to BS EN ISO 1461
- Optional powder coating in any of the 192 RAL colours (Non moving parts)

- BDS Two Tier Bike Racks are the only "Cycling Score" approved two tier bike parking system
- Designed and manufactured by a company with over 50 years experience
- We even wrote a blog about the Two Tier Bike Rack here.
- This bike rack can help contribute towards gaining ENE8 Cycle storage credits when used in the appropriate situation, under the Code for Sustainable Homes.
- Cycle stands are compact with a centre to centre distance of 375mm
- **Minimum height required is 2400mm** x minimum depth 1950mm (plus a recommended minimum entrance space of 1500mm)
- Easy lift gas strut fitted so lifting the bike up on the rack requires minimal force from the user, as per health and safety standards

How many bikes can I fit in with the Two Tier Bike Rack?

It's easy to work out. All you need to do, is measure the length of the area you want to fit the rack in. The length (mm) divided by 375mm = number of bikes that will fit on the bottom row. Multiply by 2 to get the total number of bike spaces and subtract 2 bikes to allow for the handle bars sticking out.

For example. 4000mm length divided by 375 = 10.666. Multiplied by 2 = 21.333. Round it down to 20 bikes.

How much space in the room do I need?

To be comfortable, we advise at least a 3500mm depth and a width of:

- 4 bikes - 1125mm
- 6 bikes - 1500mm
- 8 bikes - 1875mm
- 10 bikes - 2250mm
- 12 bikes - 2625mm
- 14 bikes - 3000mm
- 16 bikes - 3375mm
- 18 bikes - 3750mm
- 20 bikes - 4125mm
- Simply add 375mm for each extra 2 bikes.

Lead Time on the BDS Two Tier Bike Rack

Unlike many other Two Tier bike rack manufacturers, we carry stock of the main components so lead times can be much shorter than other suppliers. We have often delivered against very strict deadlines, The London Shard being an example; where we attended site, created a CAD layout plan for approval, designed a bespoke solution, manufactured and delivered in 4 weeks to the set and agreed deadlines.

Typical delivery time: 2-8 weeks

PLEASE CALL US ON 0800 612 6113 TO DISCUSS MORE DETAILS OR TECHNICAL INFORMATION.

See our Two Tier Cycle Shelters here

Product reference: TTBR1

Some text

Additional Information

Best Sellers M2	Yes

Additional Options

Bike Rack Size	4 bikes	£0.00
	6 bikes	£945.00
	8 bikes	£1,315.00
	10 bikes	£1,685.00
	12 bikes	£2,055.00
	14 bikes	£2,425.00
	16 bikes	£2,795.00
	18 bikes	£3,165.00
	20 bikes	£3,535.00
	Please contact for larger quantities	£0.00
Choose Finish	Hot Dipped Galvanised	£0.00
	Galvanised and Powder Coated Colour (Up to 20 bikes)	£385.00
RAL Colour Code	1023 Traffic Yellow	£0.00
	3000 Flame Red	£0.00
	5002 Ultramarine Blue	£0.00
	5017 Traffic Blue	£0.00
	6005 Moss Green	£0.00
	7015 Slate Grey	£0.00
	6024 Traffic Green	£0.00
	9005 Jet Black	£0.00
	9010 Pure White	£0.00
	Custom Colour	£220.00
Bolts	None	£0.00
	Fixing pack (Up to 6 Bike Frame)	£22.00
	Fixing pack (Up to 6-12 Bike Frame)	£44.00
	Fixing pack (Up to 12-20 Bike Frame)	£55.00