Appendix 11A Recorded Monuments within the Proposed Development Area

RMP No.	Townland	Classification	Distance from site	Statutory Protection
WI005-018	Blessington Demesne	House - 16th/17th century	0m	RMP
Description: Situated on level ground at the SE end of a gentle slope. A large late seventeenth-century house built by Michael Boyle, Archbishop of Armagh, shown on the 1838 OS 6-inch map as 'Downshire Ho. (in Ruins)'. Described by Bence-Jones (1978, 44) as a 'House of two storeys with dormered attic in its high-pitched roof; of brick, and built on an "H"-plan. Principal front with five-bay centre recessed between two three-bay projecting wings joined by a single-storey balustraded colonnade. Roof on bracket cornice; single-storey wing at one side. The house stood at the end of an avenue in a fine demesne with a deer park'. The house was burnt in 1798. The only surviving portion consists of a brick-built stairwell leading down, with one return, to a barrel-vaulted chamber (dims. c. 8m x 5m). Landscape features possibly associated with the house include a two circular ponds, one (diam. c. 40m; D c. 3.5m) with a path (Wth 3m) around the lip, and another (diam. c. 12m) set at the SE end of a subrectangular enclosure (dims. c. 60m NW-SE; 12m NE-SW), two circular mounds each with external fosses (max. ext. diam. c. 14m and diam. 11.1m; H 1m), are visible on aerial photographs (GSIAP, O 73, N 332-3). (OS Name Books) In 1998 an archaeological assessment and impact study were undertaken in the area prior to a major residential development (Excavation Licence 98E0425). The assessment showed some of the field boundaries on the site to be contemporary with the occupation of the house (Dunne 2000, 225). In 2003 a series of test trenches were opened across the location of the house (Excavation Licence 03E0453) and all features identified were surveyed and recorded (Phelan 2006, 544). Monitoring of top soil stripping continued until 2007, three rubbish pits containing post medieval artefacts were uncovered in 2007 (Phelan 2007, 477; Phelan 2010, 553). SMR entry date: 16/01/13				
WI005-016	Blessington Demesne	Designed landscape - ornamental lake	0m	Proposed SMR
Description: Listed as an 'enclosure' in the SMR (1986) and a 'landscape feature' in the RMP (1995). On level terrain on the grounds of Blessington Demesne. A circular pond (diam. c. 40m; D 3.5m) with a walk-way (Wth 3m) around the lip. SMR entry date: 04/12/12				
WI005-017	Blessington Demesne	Redundant record	0m	SMR

RMP No.	Townland	Classification	Distance from site	Statutory Protection
Description: Listed as an 'enclosure' in the SMR (1986) based on aerial photographic evidence (GSI N 332/333 (1973)). On level ground at a break in a gentle SE-facing slope. A field visit in 1989 determined that it was not of archaeological significance. Not visible at ground level. SMR entry date: 04/12/12				
WI005-130	Blessington Demesne	Ringfort - rath	0m	Proposed RMP
Description: Archaeological test trenching was carried out by Muireann Ní Cheallacháin of IAC Archaeology under licence 21E0133 which followed on from a geophysical survey conducted in December 2020 by John Nicholls of Target Geophysics under licence 20R0236. The results of this test trenching were summarised as follows; 'A total of 148 trenches were excavated across the site measuring 6820 linear metres. Testing at AA1 confirmed the presence of a heavily truncated rectangular ditched enclosure (possible original int. diameter: 75m x 65m) and the partial remains of an annex to the south of the enclosure as identified in the geophysical survey. At least 30m (c.50%) of the western arm of the enclosure ditch along with an area measuring c.75m x 30m (c. 40%) of the enclosure's interior have been heavily truncated by the construction of the distribution road. Testing has also revealed that the entire eastern extent of the rectangular enclosure ditch has been heavily truncated by construction activity associated with the distribution road. While the enclosure ditch ranges in width from 2.3m to 4m, the relatively shallow nature of the surviving enclosure ditch (0.7m-1m) and some of the habitation features suggests the site has been truncated by agricultural activity over time. A large pit of dumped post-medieval rubble material possibly associated with the demolition of Downshire house and two gravel extraction pits were also identified within AA 1a suggesting further modern truncation of the site as a whole. Items recovered from the investigation of the enclosure ditches and internal features include fragments of lignite/jet bracelet, flint lithics, stone tools, metalworking waste of iron and possible non-ferrous metals, kiln or furnace furniture and a possible crucible fragment. The form of the enclosure and annex and the habitation and metalworking evidence along with the recovery of a lignite/jet bracelet suggests that it may be the highly fragmented remains of an early medieval ringfort' (Ní Cheallacháin 2021, 17-19). SMR entry date: 28/05/21				

Appendix 11B Legislation Protecting the Archaeological Resource

PROTECTION OF CULTURAL HERITAGE

The cultural heritage in Ireland is safeguarded through national and international policy designed to secure the protection of the cultural heritage resource to the fullest possible extent (Department of Arts, Heritage, Gaeltacht and the Islands 1999, 35). This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention), ratified by Ireland in 1997.

THE ARCHAEOLOGICAL RESOURCE

The National Monuments Act 1930 to 2014 and relevant provisions of the National Cultural Institutions Act 1997 are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. A National Monument is described as 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (National Monuments Act 1930 Section 2). A number of mechanisms under the National Monuments Act are applied to secure the protection of archaeological monuments. These include the Register of Historic Monuments, the Record of Monuments and Places, and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

OWNERSHIP AND GUARDIANSHIP OF NATIONAL MONUMENTS

The Minister may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with without the written consent of the Minister.

REGISTER OF HISTORIC MONUMENTS

Section 5 of the 1987 Act requires the Minister to establish and maintain a Register of Historic Monuments. Historic monuments and archaeological areas present on the register are afforded statutory protection under the 1987 Act. Any interference with sites recorded on the register is illegal without the permission of the Minister. Two months' notice in writing is required prior to any work being undertaken on or in the vicinity of a registered monument. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the Record of Monuments and Places.

PRESERVATION ORDERS AND TEMPORARY PRESERVATION ORDERS

Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

RECORD OF MONUMENTS AND PLACES

Section 12(1) of the 1994 Act requires the Minister for Arts, Heritage, Gaeltacht and the Islands (now the Minister for the Department of Housing, Local Government and Heritage) to establish and maintain a record of monuments and places where the Minister believes that such monuments exist. The record comprises a list of monuments and relevant places and a map/s showing each monument and relevant place in respect of each county in the state. All sites recorded on the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994. All recorded monuments on the proposed development site are represented on the accompanying maps.

Section 12(3) of the 1994 Act provides that 'where the owner or occupier (other than the Minister for Arts, Heritage, Gaeltacht and the Islands) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister of Arts, Heritage, Gaeltacht and the Islands to carry out work and shall not, except in case of urgent necessity and with the consent of the Minister, commence the work until two months after giving of notice'.

Under the National Monuments (Amendment) Act 2004, anyone who demolishes or in any way interferes with a recorded site is liable to a fine not exceeding €3,000 or imprisonment for up to 6 months. On summary conviction and on conviction of indictment, a fine not exceeding €10,000 or imprisonment for up to 5 years is the penalty. In addition, they are liable for costs for the repair of the damage caused.

In addition to this, under the European Communities (Environmental Impact Assessment) Regulations 1989, Environmental Impact Statements (EIS) are required for various classes and sizes of development project to assess the impact the proposed development will have on the existing environment, which includes the cultural, archaeological and built heritage resources. These document's recommendations are typically incorporated into the conditions under which the proposed development must proceed, and thus offer an additional layer of protection for monuments which have not been listed on the RMP.

THE PLANNING AND DEVELOPMENT ACT, AS AMENDED

Under planning legislation, each local authority is obliged to draw up a Development Plan setting out their aims and policies with regard to the growth of the area over a five-year period. They cover a range of issues including archaeology and built heritage, setting out their policies and objectives with regard to the protection and enhancement of both. These policies can vary from county to county. The Planning and Development Act 2000 recognises that proper planning and sustainable development includes the protection of the archaeological heritage. Conditions relating to archaeology may be attached to individual planning permissions.

Wicklow County Development Plan 2022-2028

Archaeology Objectives:

CPO 8.1

To secure the preservation of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of sites, features and objects of archaeological interest generally. In the development management process, there will be a presumption of favour of preservation in-situ or, as a minimum, preservation by record. In securing such preservation, the Planning Authority will have regard to the advice and recommendations of the National Monuments Service of the Department of Housing, Local Government and Heritage.

CPO 8.2
No development in the vicinity of a feature included in the Record of Monuments & Places (RMP) or any other site of archaeological interest will be permitted which seriously detracts from the setting of the feature or which is seriously injurious to its cultural or educational value.

CPO 8.3
Any development that may, due to its size, location or nature, have implications for archaeological heritage (including both sites and areas of archaeological potential / significance as identified in Schedules 08.01 & 08.02 and Maps 8.01 & 8.02 of this plan) shall be subject to an archaeological assessment.

CPO 8.4
To require archaeological assessment for all developments with the potential to impact on the archaeological heritage of riverine, intertidal or sub tidal environments.

CPO 8.5
To facilitate new or improved public access to and erection of appropriate interpretive signage at National Monuments, archaeological sites, castles, sites of historic interest and archaeological landscapes in State or private ownership, as identified in Schedule 08.02 and Map 8.02 of this plan, in co-operation with landowners.

CPO 8.6
To protect the integrity of Baltinglass Hills archaeological landscape including identified monuments and their wider setting by resisting development that may adversely impact upon the significance and understanding of this important landscape.

CPO 8.7
To support the inscription of Glendalough to Ireland's tentative UNESCO World Heritage Site list and promote a conservation led approach to facilitating visitor access and enjoyment of this internationally significant landscape.

CPO 8.8
To protect and promote the characteristics of historic towns in County Wicklow identified as zones of archaeological potential in the Record of Monuments and Places (RMP), ensuring that cognisance is given in relevant development proposals to retaining existing street layout, historic building lines and traditional plot widths where these derive from medieval or earlier origins.

CPO 8.9
To protect and promote the conservation of historic burial grounds (those that are generally no longer in use but which may contain sites and features on the Record of Monuments and Places (RMP) and/or RPS) and support greater public access to these where possible.

Blessington Local Area Plan, 2013-2019

BD1
To protect the natural, architectural and archaeological heritage of the town, in accordance with the objectives and development standards set out in Chapters 16 and 17 of the County Development Plan as are applicable to Blessington and its environs.

Appendix 11C Legislation Protecting the Architectural Resource

The main laws protecting the built heritage are the Architectural Heritage (National Inventory) and National Monuments (Miscellaneous Provisions) Act 1999 and the Local Government (Planning and Development) Acts 1963–1999, which has now been superseded by the Planning and Development Act, 2000. The Architectural Heritage Act requires the Minister to establish a survey to identify, record and assess the architectural heritage of the country. The background to this legislation derives from Article 2 of the 1985 Convention for the Protection of Architectural Heritage (Granada Convention). This states that:

For the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member state will undertake to maintain inventories of that architectural heritage.

The National Inventory of Architectural Heritage (NIAH) was established in 1990 to fulfil Ireland's obligation under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architecture of Ireland (NIAH Handbook 2005:2). As inclusion in the inventory does not provide statutory protection, the survey information is used in conjunction with the Architectural Heritage Protection Guidelines for Planning Authorities to advise local authorities on compilation of a Record of Protected Structures as required by the Planning and Development Act, 2000.

PROTECTION UNDER THE RECORD OF PROTECTED STRUCTURES AND COUNTY DEVELOPMENT PLAN
Structures of architectural, cultural, social, scientific, historical, technical or archaeological interest can be protected under the Planning and Development Act, 2000, where the conditions relating to the protection of the architectural heritage are set out in Part IV of the act. This act superseded the Local Government (Planning and Development) Act, 1999, and came into force on 1st January 2000.

The act provides for the inclusion of Protected Structures into the planning authorities' development plans and sets out statutory regulations regarding works affecting such structures. Under new legislation, no distinction is made between buildings formerly classified under development plans as List 1 and List 2. Such buildings are now all regarded as 'Protected Structures' and enjoy equal statutory protection. Under the act the entire structure is protected, including a structure's interior, exterior, attendant grounds and also any structures within the attendant grounds.

The act defines a Protected Structure as (a) a structure, or (b) a specified part of a structure which is included in a Record of Protected Structures (RPS), and, where that record so indicates, includes any specified feature which is in the attendant grounds of the structure and which would not otherwise be included in this definition. Protection of the structure, or part thereof, includes conservation, preservation, and improvement compatible with maintaining its character and interest. Part IV of the act deals with architectural heritage, and Section 57 deals specifically with works affecting the character of Protected Structures or proposed Protected Structures and states that no works should materially affect the character of the structure or any element of the structure that contributes to its special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. The act does not provide specific criteria for assigning a special interest to a structure. However, the National Inventory of

Architectural Heritage (NIAH) offers guidelines to its field workers as to how to designate a building with a special interest, which are not mutually exclusive. This offers guidance by example rather than by definition:

ARCHAEOLOGICAL

It is to be noted that the NIAH is biased towards post-1700 structures. Structures that have archaeological features may be recorded, providing the archaeological features are incorporated within post-1700 elements. Industrial fabric is considered to have technical significance, and should only be attributed archaeological significance if the structure has pre-1700 features.

ARCHITECTURAL

A structure may be considered of special architectural interest under the following criteria:

- Good quality or well executed architectural design
- The work of a known and distinguished architect, engineer, designer, craftsman
- A structure that makes a positive contribution to a setting, such as a streetscape or rural setting
- Modest or vernacular structures may be considered to be of architectural interest, as they are part of the history of the built heritage of Ireland.
- Well-designed decorative features, externally and/or internally

HISTORICAL

A structure may be considered of special historical interest under the following criteria:

- A significant historical event associated with the structure
- An association with a significant historical figure
- Has a known interesting and/or unusual change of use, e.g. a former workhouse now in use as a hotel
- A memorial to a historical event.

TECHNICAL

A structure may be considered of special technical interest under the following criteria:

- Incorporates building materials of particular interest, i.e. the materials or the technology used for construction
- It is the work of a known or distinguished engineer
- Incorporates innovative engineering design, e.g. bridges, canals or mill weirs
- A structure which has an architectural interest may also merit a technical interest due to the structural techniques used in its construction, e.g. a curvilinear glasshouse, early use of concrete, cast-iron prefabrication.
- Mechanical fixtures relating to a structure may be considered of technical significance.

CULTURAL

A structure may be considered of special cultural interest under the following criteria:

- An association with a known fictitious character or event, e.g. Sandycove Martello Tower, which featured in Ulysses.

Other structure that illustrate the development of society, such as early schoolhouses, swimming baths or printworks.

SCIENTIFIC

A structure may be considered of special scientific interest under the following criteria:

A structure or place which is considered to be an extraordinary or pioneering scientific or technical achievement in the Irish context, e.g. Mizen Head Bridge, Birr Telescope.

SOCIAL

A structure may be considered of special social interest under the following criteria:

A focal point of spiritual, political, national or other cultural sentiment to a group of people, e.g. a place of worship, a meeting point, assembly rooms.

Developed or constructed by a community or organisation, e.g. the construction of the railways or the building of a church through the patronage of the local community

Illustrates a particular lifestyle, philosophy, or social condition of the past, e.g. the hierarchical accommodation in a country house, philanthropic housing, vernacular structures.

ARTISTIC

A structure may be considered of special artistic interest under the following criteria:

Work of a skilled craftsman or artist, e.g. plasterwork, wrought-iron work, carved elements or details, stained glass, stations of the cross.

Well-designed mass-produced structures or elements may also be considered of artistic interest.

(From the NIAH Handbook 2003 & 2005 pages 15–20)

The Local Authority has the power to order conservation and restoration works to be undertaken by the owner of the protected structure if it considers the building to need repair. Similarly, an owner or developer must make a written request to the Local Authority to carry out any works on a protected structure and its environs, which will be reviewed within three months of application. Failure to do so may result in prosecution.

Wicklow County Development Plan 2022-2028

Architectural Heritage Objectives

CPO 8.10 To protect, conserve and manage the built heritage of Wicklow and to encourage sensitive and
sustainable development to ensure its preservation for future generations.

CPO 8.11 To support the work of the National Inventory of Architectural Heritage (NIAH) in collecting data relating to the architectural heritage, including the historic gardens and designed landscapes of the County, and in the making of this information widely accessible to the public and property owners.

CPO 8.12 To have regard to 'Architectural Heritage Protection: Guidelines for Planning Authorities' (Department of Arts, Heritage and the Gaeltacht, 2011) in the assessment of proposals affecting architectural heritage.

Record of Protected Structures Objectives

CPO 8.13 To ensure the protection of all structures, items and features contained in the Record of Protected
Structures.

CPO 8.14 To positively consider proposals to alter or change the use of protected structures so as to render them viable for modern use, subject to architectural heritage assessment and to demonstration by a suitably qualified Conservation Architect / or other relevant expertise that the structure, character, appearance and setting will not be adversely affected and suitable design, materials and construction methods will be utilised.

CPO 8.15 All development works on or at the sites of protected structures, including any site works necessary, shall be carried out using best heritage practice for the protection and preservation of those aspects or features of the structures / site that render it worthy of protection.

CPO 8.16 To support the re-introduction of traditional features on protected structures where there is evidence that such features (e.g. window styles, finishes etc) previously existed.

CPO 8.17 To strongly resist the demolition of protected structures or features of special interest unless it can be demonstrated that exceptional circumstances exist. All such cases will be subject to full heritage impact assessment and mitigation.

Other Structures & Vernacular Architecture Objectives

CPO 8.18 To seek (through the development management process) the retention, conservation, appropriate repair and reuse of vernacular buildings and features such as traditional dwellings and outbuildings, historic shopfronts, thatched roofs and historic features such as stonewalls and milestones. The demolition of vernacular buildings will be discouraged.

CPO 8.19 Development proposals affecting vernacular buildings and structures will be required to submit a detailed, true measured survey, photographic records and written analysis as part of the planning application process.

CPO 8.20 Where an item or a structure (or any feature of a structure) is considered to be of heritage merit (where not identified in the RPS3), the Planning Authority reserves the right to refuse permission to remove or alter that structure / item, in the interests of the protection of the County's architectural heritage.

Appendix 11D Mitigation Measures and the Cultural Heritage Resource

POTENTIAL MITIGATION STRATEGIES FOR CULTURAL HERITAGE REMAINS

Mitigation is defined as features of the design or other measures of the proposed development that can be adopted to avoid, prevent, reduce or offset negative effects.

The best opportunities for avoiding damage to archaeological remains or intrusion on their setting and amenity arise when the site options for the development are being considered. Damage to the archaeological resource immediately adjacent to developments may be prevented by the selection of appropriate construction methods. Reducing adverse effects can be achieved by good design, for example by screening historic buildings or upstanding archaeological monuments or by burying archaeological sites undisturbed rather than destroying them. Offsetting adverse effects is probably best illustrated by the full investigation and recording of archaeological sites that cannot be preserved in situ.

DEFINITION OF MITIGATION STRATEGIES

ARCHAEOLOGICAL RESOURCE

The ideal mitigation for all archaeological sites is preservation in situ. This is not always a practical solution, however. Therefore, a series of recommendations are offered to provide ameliorative measures where avoidance and preservation in situ are not possible.

Archaeological Test Trenching can be defined as 'a limited programme of intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate' (CIfA 2020a).

Full Archaeological Excavation can be defined as 'a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design' (CIfA 2020b).

Archaeological Monitoring can be defined as 'a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive (CIfA 2020c).

Underwater Archaeological Assessment consists of a programme of works carried out by a specialist underwater archaeologist, which can involve wade surveys, metal detection surveys and the excavation

of test pits within the sea or riverbed. These assessments are able to access and assess the potential of an underwater environment to a much higher degree than terrestrial based assessments.

APPENDIX 12A The TRICS Outputs

Calculation Reference: AUDIT-638801-230526-0518

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

11	**SCOTLAND**		
	SR	STIRLING	1 days
13	**MUNSTER**		
	WA	WATERFORD	1 days
14	**LEINSTER**		
	LU	LOUTH	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 42 to 82 (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: 01/01/15 to 15/10/21

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

Selected survey days:

Tuesday	2 days
Wednesday	1 days

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

Selected survey types:

Manual count	3 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:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	1
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	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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	5 days - Selected
Servicing vehicles Excluded	12 days - Selected

Secondary Filtering selection:

Use Class:

C3	3 days

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

Population within 500m Range:
All Surveys Included
Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 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	3 days

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

PTAL Rating:

No PTAL Present	3 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 **LU-03-C-04** **BLOCKS OF FLATS** **LOUTH**
RIVER COURT
DROGHEDA

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 42
Survey date: WEDNESDAY *22/09/21* *Survey Type: MANUAL*

2 **SR-03-C-03** **BLOCK OF FLATS & TERRACED** **STIRLING**
KERSEBONNY ROAD
STIRLING
CAMBUSBARRON
Edge of Town
Residential Zone
Total No of Dwellings: 82
Survey date: TUESDAY *01/09/20* *Survey Type: MANUAL*

3 **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*

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
TOTAL 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	3	58	0.017	3	58	0.143	3	58	0.160
08:00 - 09:00	3	58	0.057	**3**	**58**	**0.177**	3	58	0.234
09:00 - 10:00	3	58	0.091	3	58	0.057	3	58	0.148
10:00 - 11:00	3	58	0.109	3	58	0.097	3	58	0.206
11:00 - 12:00	3	58	0.069	3	58	0.126	3	58	0.195
12:00 - 13:00	3	58	0.143	3	58	0.131	3	58	0.274
13:00 - 14:00	3	58	0.149	3	58	0.126	3	58	0.275
14:00 - 15:00	3	58	0.126	3	58	0.143	3	58	0.269
15:00 - 16:00	3	58	0.154	3	58	0.143	3	58	0.297
16:00 - 17:00	3	58	0.171	3	58	0.166	3	58	0.337
17:00 - 18:00	**3**	**58**	**0.240**	3	58	0.126	**3**	**58**	**0.366**
18:00 - 19:00	3	58	0.166	3	58	0.160	3	58	0.326
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.492			1.595			3.087

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:	42 - 82 (units:)
Survey date date range:	01/01/15 - 15/10/21
Number of weekdays (Monday-Friday):	3
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-638801-230526-0522

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

03	**SOUTH WEST**		
	DC	DORSET	1 days
04	**EAST ANGLIA**		
	NF	NORFOLK	7 days
10	**WALES**		
	PS	POWYS	2 days
11	**SCOTLAND**		
	AS	ABERDEENSHIRE	1 days
12	**CONNAUGHT**		
	LT	LEITRIM	2 days
14	**LEINSTER**		
	CC	CARLOW	1 days
	WC	WICKLOW	1 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	DN	DONEGAL	3 days
17	**ULSTER (NORTHERN IRELAND)**		
	DE	DERRY	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: 6 to 321 (units:)
Range Selected by User: 4 to 1882 (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: 01/01/15 to 09/11/22

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	2 days
Wednesday	9 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	14 days
Directional ATC Count	5 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	4
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	12

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 19

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

Inclusion of Servicing Vehicles Counts:
Servicing vehicles Included 14 days - Selected
Servicing vehicles Excluded 72 days - Selected

Secondary Filtering selection:

Use Class:
C3 19 days

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

Population within 500m Range:
All Surveys Included
Population within 1 mile:
1,001 to 5,000 10 days
5,001 to 10,000 9 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 15 days
25,001 to 50,000 3 days

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

Car ownership within 5 miles:
0.6 to 1.0 3 days
1.1 to 1.5 14 days
1.6 to 2.0 2 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 7 days
No 12 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 19 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 **AS-03-A-02** **MIXED HOUSES** **ABERDEENSHIRE**
FARROCHIE ROAD
STONEHAVEN

Edge of Town
Residential Zone
Total No of Dwellings: 131
Survey date: WEDNESDAY 20/04/22 Survey Type: MANUAL

2 **CC-03-A-01** **DETACHED HOUSES** **CARLOW**
R417 ANTHY ROAD
CARLOW

Edge of Town
Residential Zone
Total No of Dwellings: 23
Survey date: WEDNESDAY 25/05/16 Survey Type: MANUAL

3 **DC-03-A-10** **MIXED HOUSES** **DORSET**
ADDISON CLOSE
GILLINGHAM

Edge of Town
Residential Zone
Total No of Dwellings: 26
Survey date: WEDNESDAY 09/11/22 Survey Type: MANUAL

4 **DE-03-A-04** **SEMI-DETACHED & TERRACED** **DERRY**
GREENHALL HIGHWAY
COLERAINE

Edge of Town
Residential Zone
Total No of Dwellings: 38
Survey date: THURSDAY 19/05/22 Survey Type: MANUAL

5 **DN-03-A-06** **DETACHED HOUSING** **DONEGAL**
GLENFIN ROAD
BALLYBOFEY

Edge of Town
Residential Zone
Total No of Dwellings: 6
Survey date: WEDNESDAY 10/10/18 Survey Type: MANUAL

6 **DN-03-A-07** **DETACHED & SEMI-DETACHED** **DONEGAL**
ST ORANS ROAD
BUNCRANA

Edge of Town Centre
Residential Zone
Total No of Dwellings: 9
Survey date: WEDNESDAY 29/05/19 Survey Type: MANUAL

7 **DN-03-A-08** **SEMI DETACHED & DETACHED** **DONEGAL**
CHURCH ROAD
CARNDONAGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 36
Survey date: WEDNESDAY 30/09/20 Survey Type: MANUAL

8 **LT-03-A-01** **SEMI-DETACHED & DETACHED** **LEITRIM**
ARD NA SI
CARRICK-ON-SHANNON
ATTIRORY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 90
Survey date: FRIDAY 24/04/15 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9 **LT-03-A-02** **BUNGALOWS** **LEITRIM**
ARD ÁLAINN
CARRICK-ON-SHANNON
GALLOW'S HILL
Edge of Town Centre
Residential Zone
Total No of Dwellings: 10
Survey date: MONDAY 22/05/17 Survey Type: MANUAL

10 **NF-03-A-10** **MIXED HOUSES & FLATS** **NORFOLK**
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 17
Survey date: WEDNESDAY 12/09/18 Survey Type: DIRECTIONAL ATC COUNT

11 **NF-03-A-16** **MIXED HOUSES & FLATS** **NORFOLK**
NORWICH COMMON
WYMONDHAM

Edge of Town
Residential Zone
Total No of Dwellings: 138
Survey date: TUESDAY 20/10/15 Survey Type: DIRECTIONAL ATC COUNT

12 **NF-03-A-31** **MIXED HOUSES** **NORFOLK**
BRANDON ROAD
SWAFFHAM

Edge of Town
Residential Zone
Total No of Dwellings: 321
Survey date: THURSDAY 22/09/22 Survey Type: DIRECTIONAL ATC COUNT

13 **NF-03-A-32** **MIXED HOUSES & FLATS** **NORFOLK**
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 164
Survey date: WEDNESDAY 21/09/22 Survey Type: DIRECTIONAL ATC COUNT

14 **NF-03-A-33** **MIXED HOUSES** **NORFOLK**
LONDON ROAD
ATTLEBOROUGH

Edge of Town
Residential Zone
Total No of Dwellings: 143
Survey date: THURSDAY 29/09/22 Survey Type: MANUAL

15 **NF-03-A-39** **MIXED HOUSES** **NORFOLK**
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: TUESDAY 27/09/22 Survey Type: MANUAL

16 **NF-03-A-47** **MIXED HOUSES & FLATS** **NORFOLK**
BURGH ROAD
AYLSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 300
Survey date: WEDNESDAY 21/09/22 Survey Type: DIRECTIONAL ATC COUNT

LIST OF SITES relevant to selection parameters (Cont.)

17 PS-03-A-01 MIXED HOUSES POWYS
BRYN GLAS
WELSHPOOL

Edge of Town Centre
Residential Zone
Total No of Dwellings: 16
Survey date: MONDAY 11/05/15 Survey Type: MANUAL

18 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS
GUNROG ROAD
WELSHPOOL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY 11/05/15 Survey Type: MANUAL

19 WC-03-A-02 DETACHED HOUSES WICKLOW
MARLTON ROAD
WICKLOW
FRIARSHILL
Edge of Town Centre
Residential Zone
Total No of Dwellings: 45
Survey date: MONDAY 28/05/18 Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL 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	19	92	0.061	19	92	0.234	19	92	0.295
08:00 - 09:00	19	92	0.132	**19**	**92**	**0.337**	19	92	0.469
09:00 - 10:00	19	92	0.139	19	92	0.173	19	92	0.312
10:00 - 11:00	19	92	0.124	19	92	0.149	19	92	0.273
11:00 - 12:00	19	92	0.164	19	92	0.145	19	92	0.309
12:00 - 13:00	19	92	0.134	19	92	0.134	19	92	0.268
13:00 - 14:00	19	92	0.160	19	92	0.161	19	92	0.321
14:00 - 15:00	19	92	0.176	19	92	0.191	19	92	0.367
15:00 - 16:00	19	92	0.260	19	92	0.191	19	92	0.451
16:00 - 17:00	19	92	0.253	19	92	0.163	19	92	0.416
17:00 - 18:00	**19**	**92**	**0.329**	19	92	0.175	**19**	**92**	**0.504**
18:00 - 19:00	19	92	0.253	19	92	0.172	19	92	0.425
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.185			2.225			4.410

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.

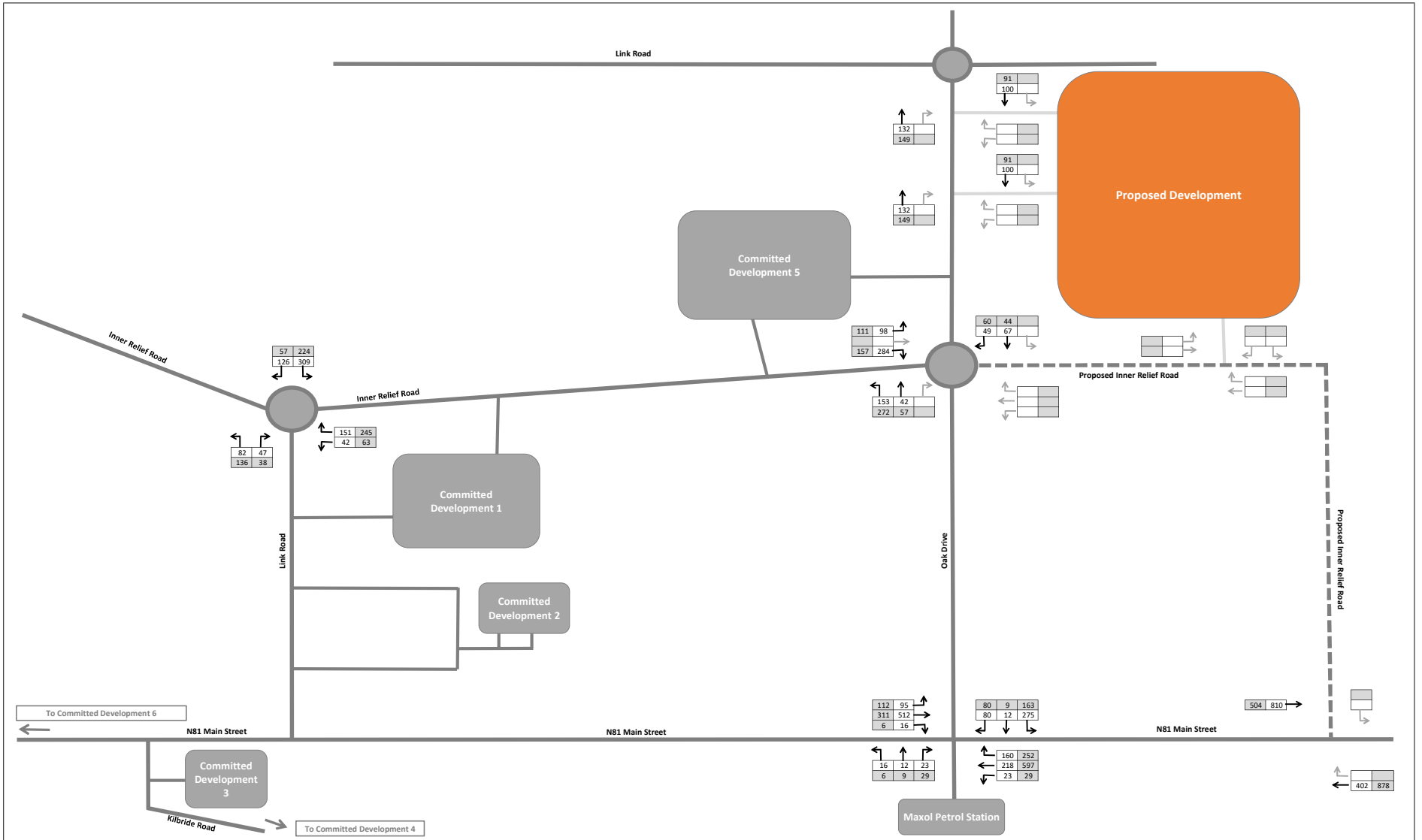
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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:	6 - 321 (units:)
Survey date date range:	01/01/15 - 09/11/22
Number of weekdays (Monday-Friday):	19
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	17
Surveys manually removed from selection:	0

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

APPENDIX 12B Network Traffic Flows – PCUs



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website: www.dbfl.ie

Project : Proposed Residential Development
Blessington Demesne, Co. Wicklow

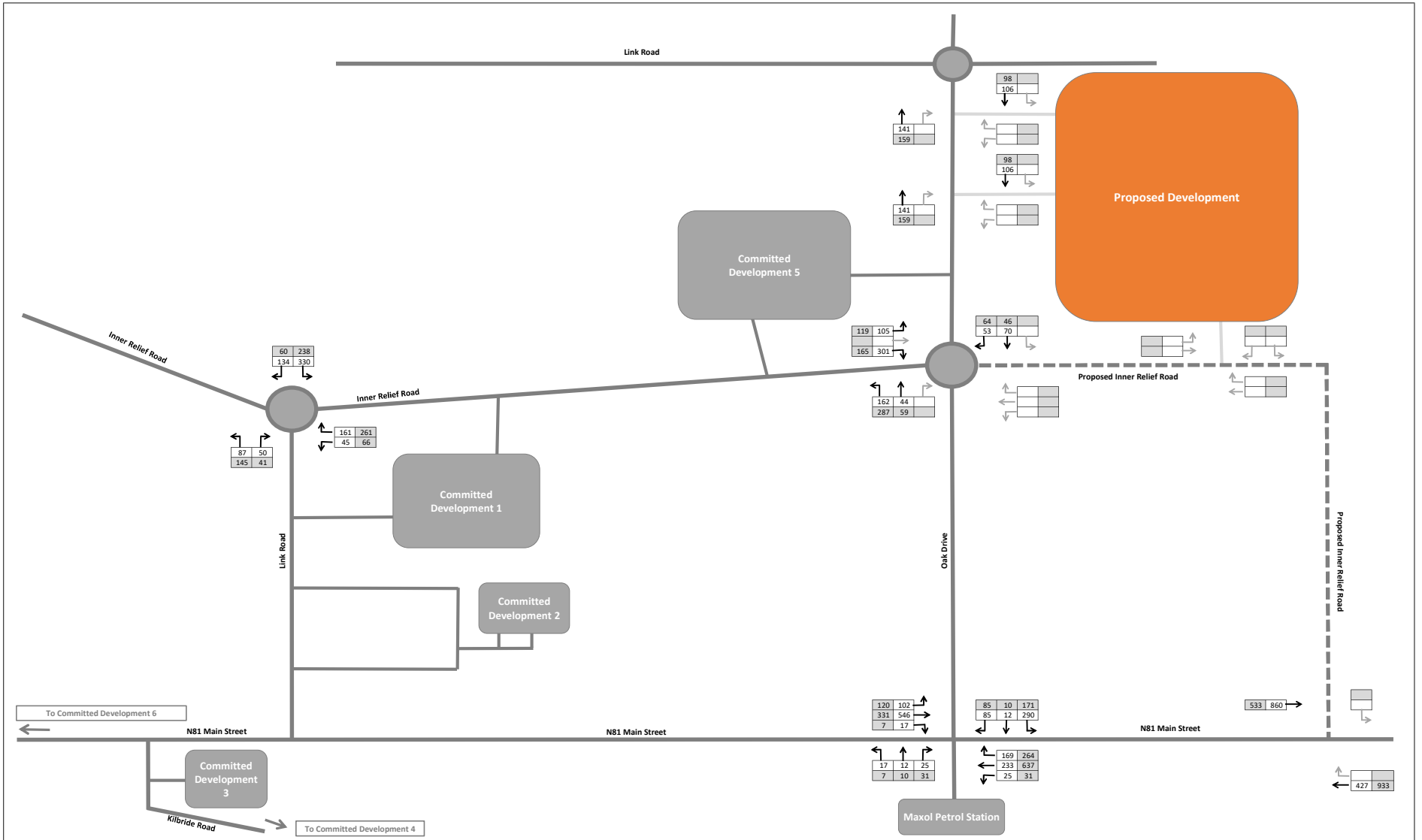
DRG. Title : Network Traffic Flows - PCUs
2026 Do-Minimum Scenario

Key:
AM Peak Hour (08:15-09:15)
PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
12	2



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Blessington Demesne, Co. Wicklow

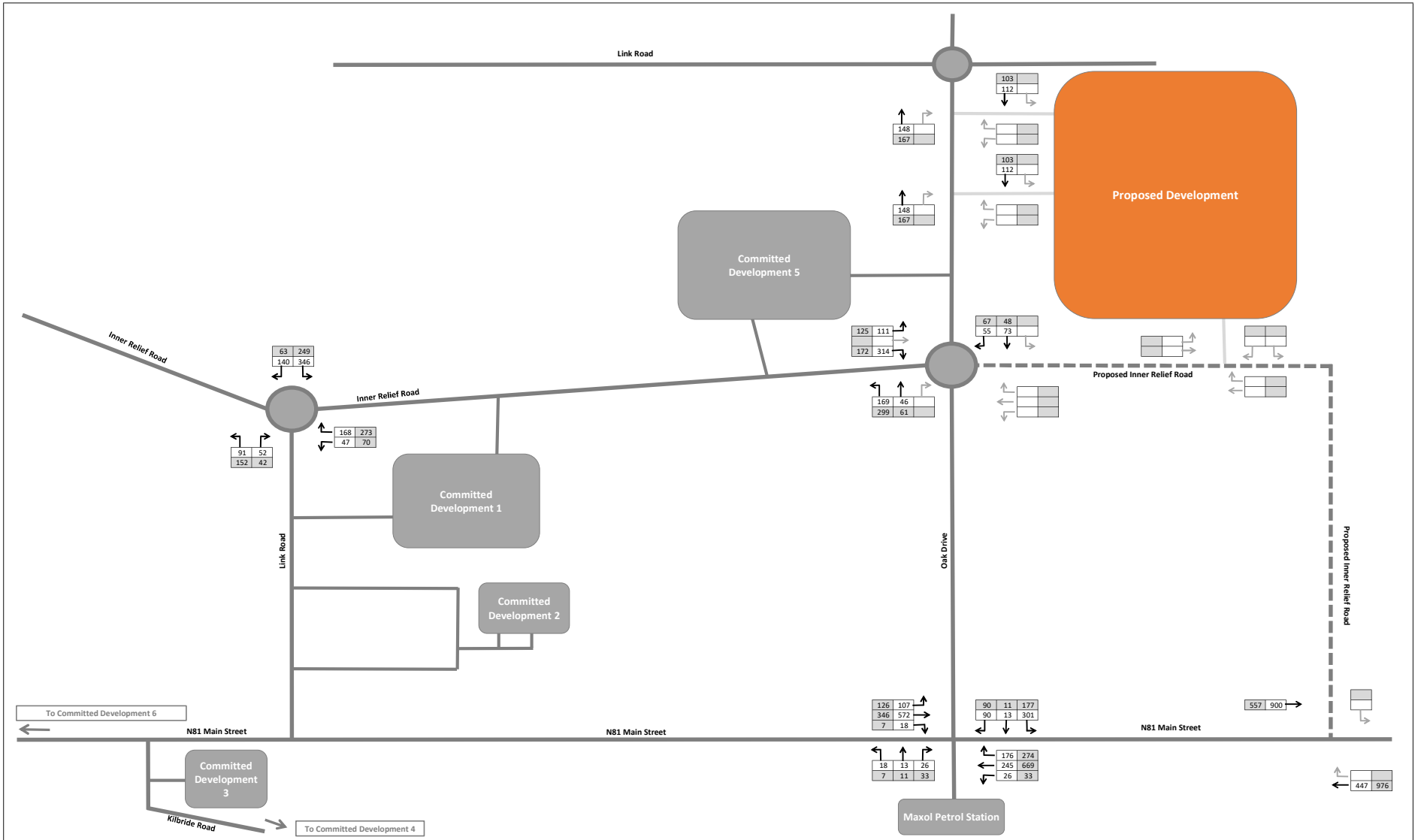
DRG. Title : Network Traffic Flows - PCUs
2031 Do-Minimum Scenario

Key:
AM Peak Hour (08:15-09:15)
PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
13	2



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Blessington Demesne, Co. Wicklow

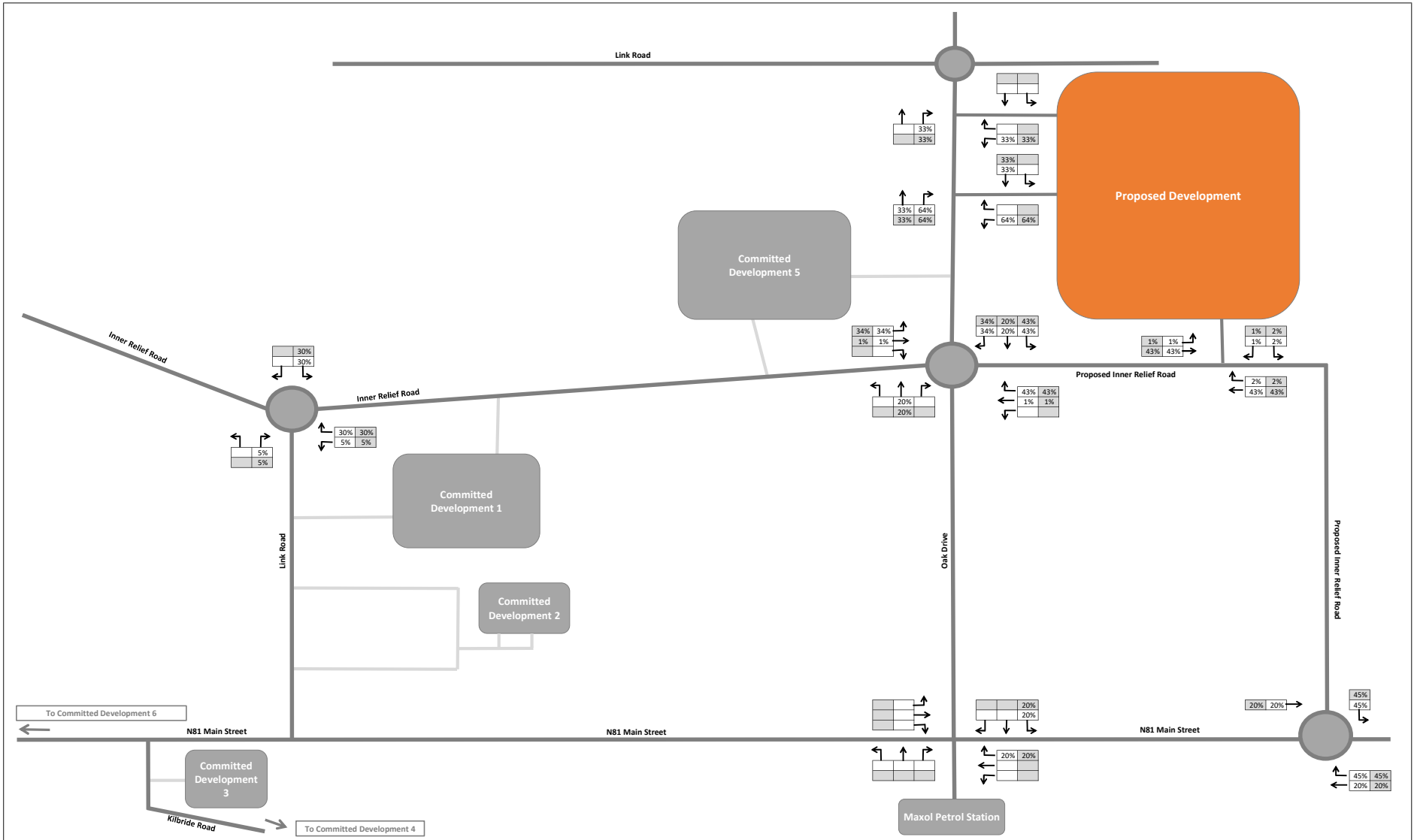
DRG. Title : Network Traffic Flows - PCUs
2041 Do-Minimum Scenario

Key:
AM Peak Hour (08:15-09:15)
PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	13/07/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
14	1



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Project : Proposed Residential Development, Blessington Demesne, Co. Wicklow

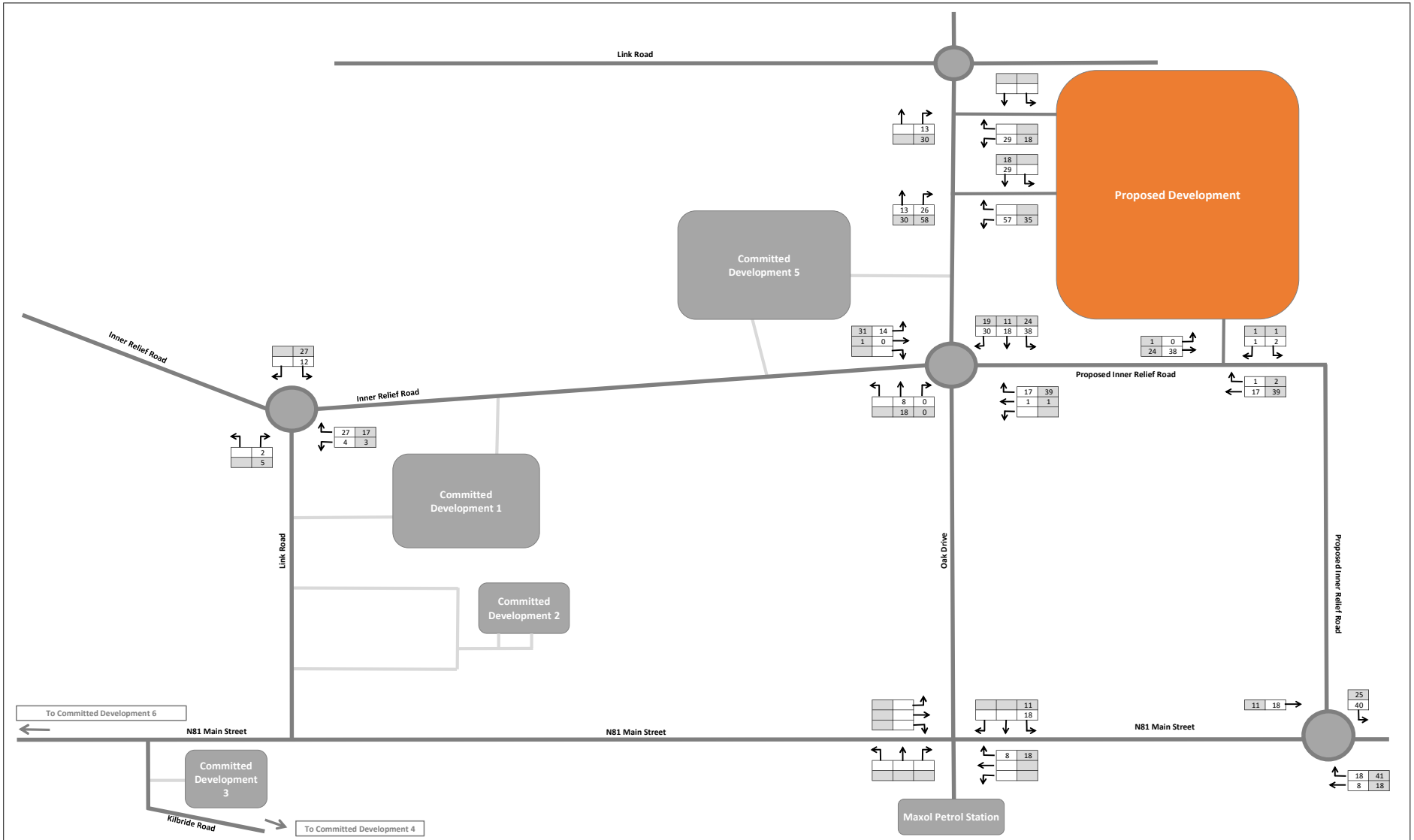
DRG. Title : Proposed Development Trip Distribution

Key: AM Peak Hour (08:15-09:15); PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
24a	2



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Project : Proposed Residential Development, Blessington Demesne, Co. Wicklow

DRG. Title : Proposed Development Vehicle Trips

Key:
AM Peak Hour (08:15-09:15)
PM Peak Hour (17:30-18:30)

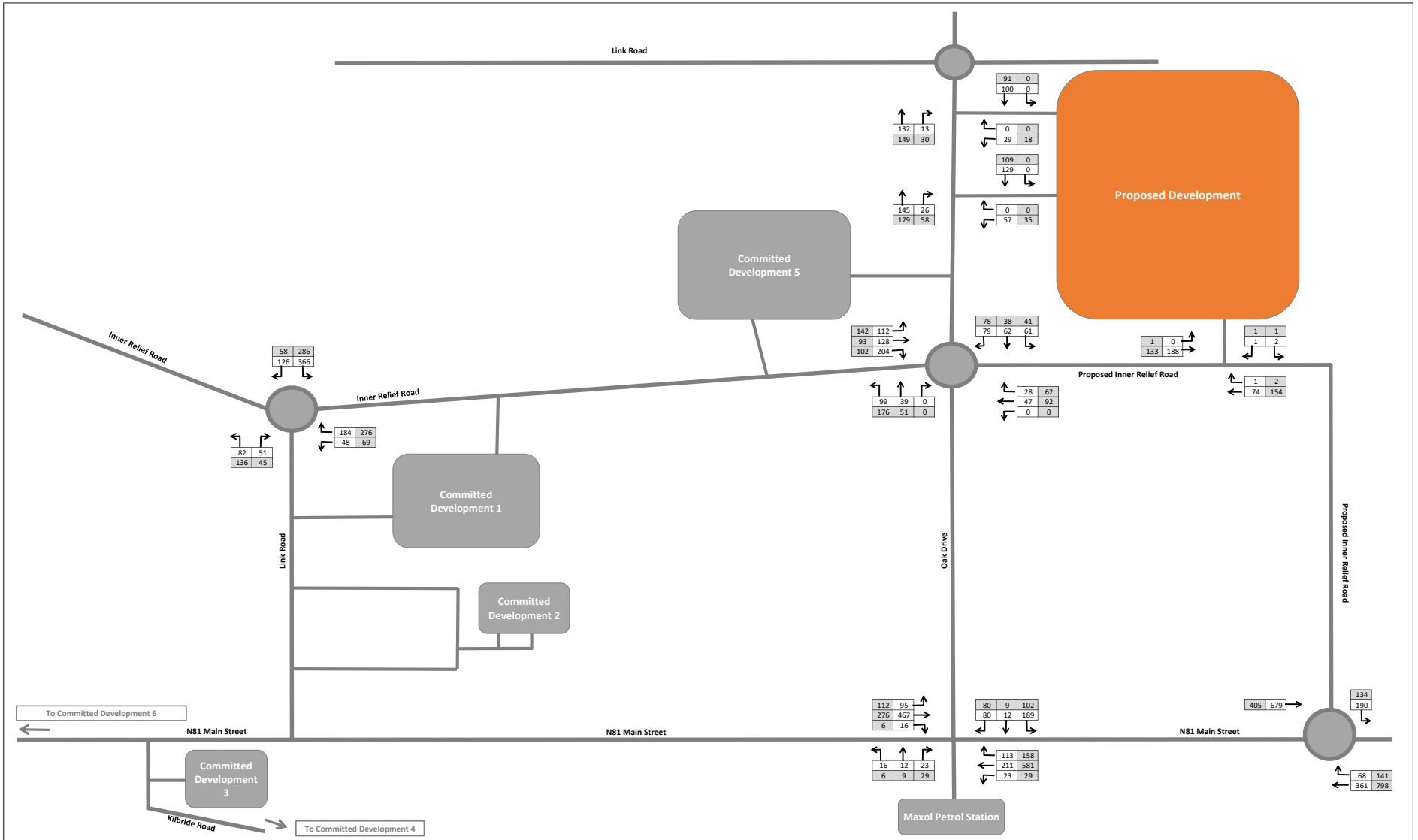
AM Peak		PM Peak	
Arr	Dep	Arr	Dep
40	88	90	55

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure: 24b

Rev: 2



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Project : Proposed Residential Development
Blessington Demesne, Co. Wicklow

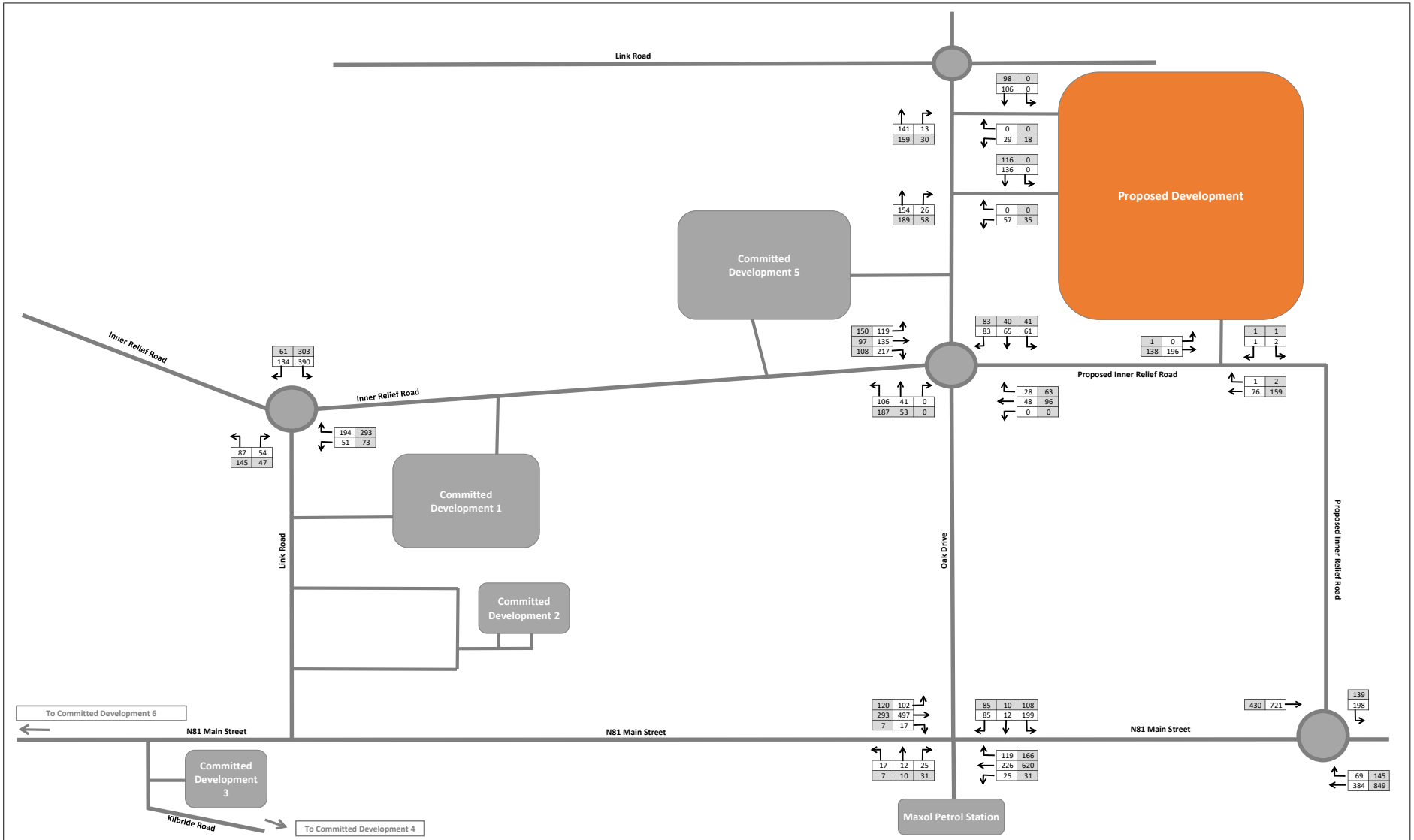
DRG. Title : Network Traffic Flows - PCUs
2026 Do-Something Scenario

Key:
- AM Peak Hour (08:15-09:15)
- PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
25	2



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Project : Proposed Residential Development, Blessington Demesne, Co. Wicklow

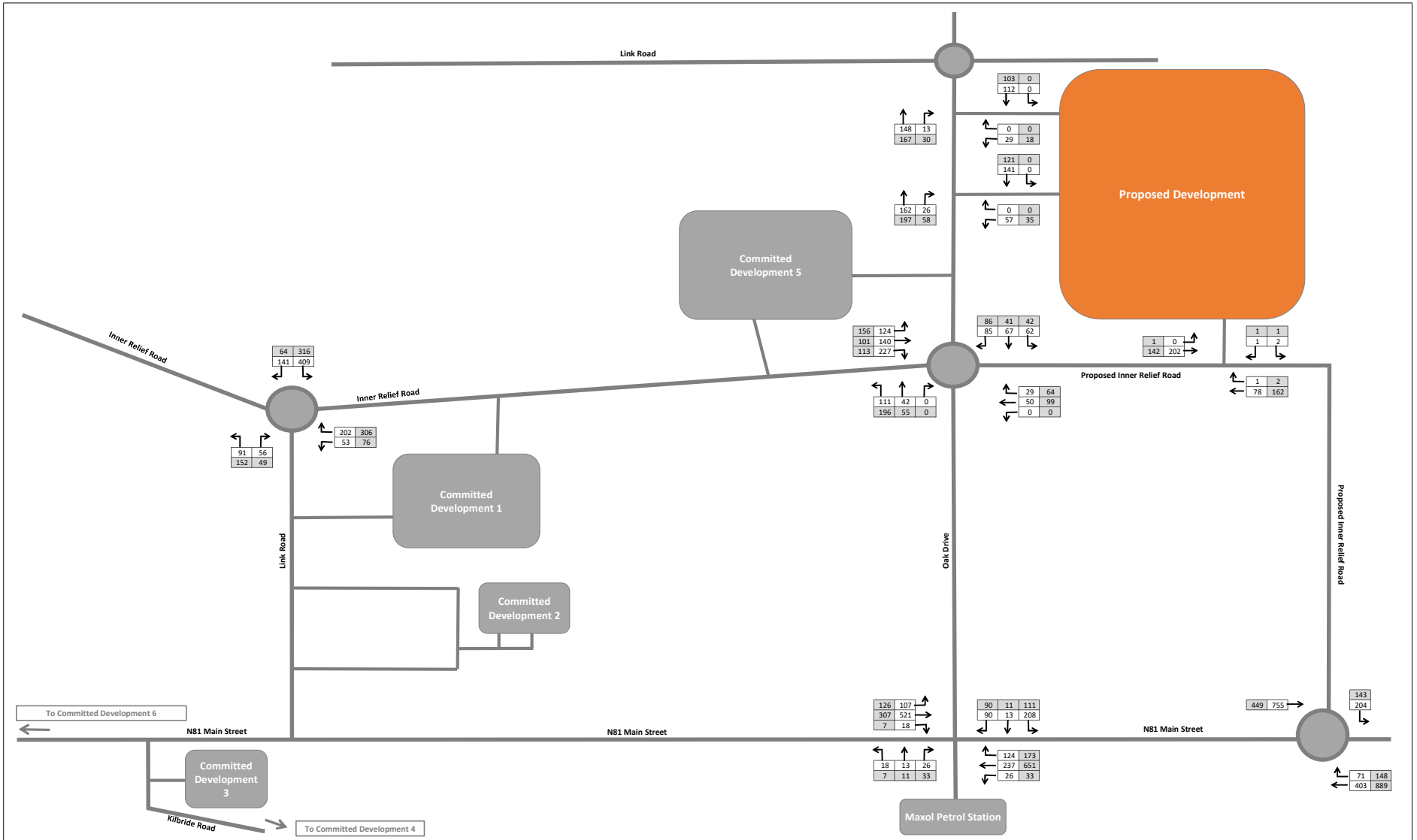
DRG. Title : Network Traffic Flows - PCUs, 2031 Do-Something Scenario

Key: AM Peak Hour (08:15-09:15); PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
26	2



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Project : Proposed Residential Development
Blessington Demesne, Co. Wicklow

DRG. Title : Network Traffic Flows - PCUs
2041 Do-Something Scenario

Key:
- AM Peak Hour (08:15-09:15)
- PM Peak Hour (17:30-18:30)

Dwn:	Ckd:	Date:
SK	HG	03/08/2023

Ref: p220145\calcs\excel\transport

Figure:	Rev:
27	2

APPENDIX 12C Picady 9 – Priority Intersection Module Junction 9 Performance

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.2.1013

Filename: N81 Main Street _ Oak Drive.j9
Path: G:\2022\p220145\calcs\picady
Report generation date: 03/08/2023 16:16:21

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do-Minimum - 2026 DM									
Stream B-C-D	A1 D1	1.3	15.76	0.56	C	A1 D2	0.5	9.75	0.32	A
Stream B-A-D		0.5	17.92	0.32	C		0.5	20.02	0.34	C
Stream A-B-C-D		0.0	6.59	0.03	A		0.0	8.68	0.02	A
Stream D-A-B-C		0.2	10.44	0.14	B		0.2	15.22	0.17	C
Stream C-A-B-D		0.5	8.48	0.32	A		1.3	7.43	0.46	A
	Do-Minimum - 2031 DM									
Stream B-C-D	A1 D3	1.6	18.27	0.61	C	A1 D4	0.6	10.55	0.35	B
Stream B-A-D		0.5	20.52	0.36	C		0.6	22.94	0.38	C
Stream A-B-C-D		0.0	6.66	0.03	A		0.0	8.99	0.02	A
Stream D-A-B-C		0.2	11.14	0.16	B		0.2	16.96	0.20	C
Stream C-A-B-D		0.6	8.79	0.35	A		1.5	7.58	0.49	A
	Do-Minimum - 2041 DM									
Stream B-C-D	A1 D5	2.0	21.20	0.66	C	A1 D6	0.6	11.40	0.38	B
Stream B-A-D		0.7	23.63	0.41	C		0.7	26.10	0.43	D
Stream A-B-C-D		0.0	6.71	0.04	A		0.0	9.25	0.02	A
Stream D-A-B-C		0.2	11.74	0.17	B		0.3	18.90	0.23	C
Stream C-A-B-D		0.7	9.05	0.37	A		1.7	7.72	0.51	A

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do-Something - 2026 DS									
Stream B-C-D	A2 D7	0.7	10.99	0.38	B	A2 D8	0.3	8.31	0.21	A
Stream B-A-D		0.4	14.83	0.28	B		0.4	15.37	0.28	C
Stream A-B-C-D		0.0	6.39	0.03	A		0.0	7.97	0.01	A
Stream D-A-B-C		0.1	9.39	0.13	A		0.2	12.58	0.14	B
Stream C-A-B-D		0.3	7.58	0.22	A		0.5	6.36	0.28	A
	Do-Something - 2031 DS									
Stream B-C-D	A2 D9	0.7	11.84	0.41	B	A2 D10	0.3	8.74	0.22	A
Stream B-A-D		0.4	16.11	0.31	C		0.5	16.87	0.31	C
Stream A-B-C-D		0.0	6.45	0.03	A		0.0	8.20	0.02	A
Stream D-A-B-C		0.2	9.85	0.14	A		0.2	13.60	0.17	B
Stream C-A-B-D		0.4	7.76	0.24	A		0.6	6.39	0.30	A
	Do-Something - 2041 DS									
Stream B-C-D	A2 D11	0.8	12.81	0.45	B	A2 D12	0.3	9.16	0.24	A
Stream B-A-D		0.5	17.44	0.34	C		0.5	18.33	0.34	C
Stream A-B-C-D		0.0	6.49	0.04	A		0.0	8.39	0.02	A
Stream D-A-B-C		0.2	10.25	0.15	B		0.2	14.67	0.19	B
Stream C-A-B-D		0.4	7.92	0.25	A		0.7	6.40	0.32	A

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

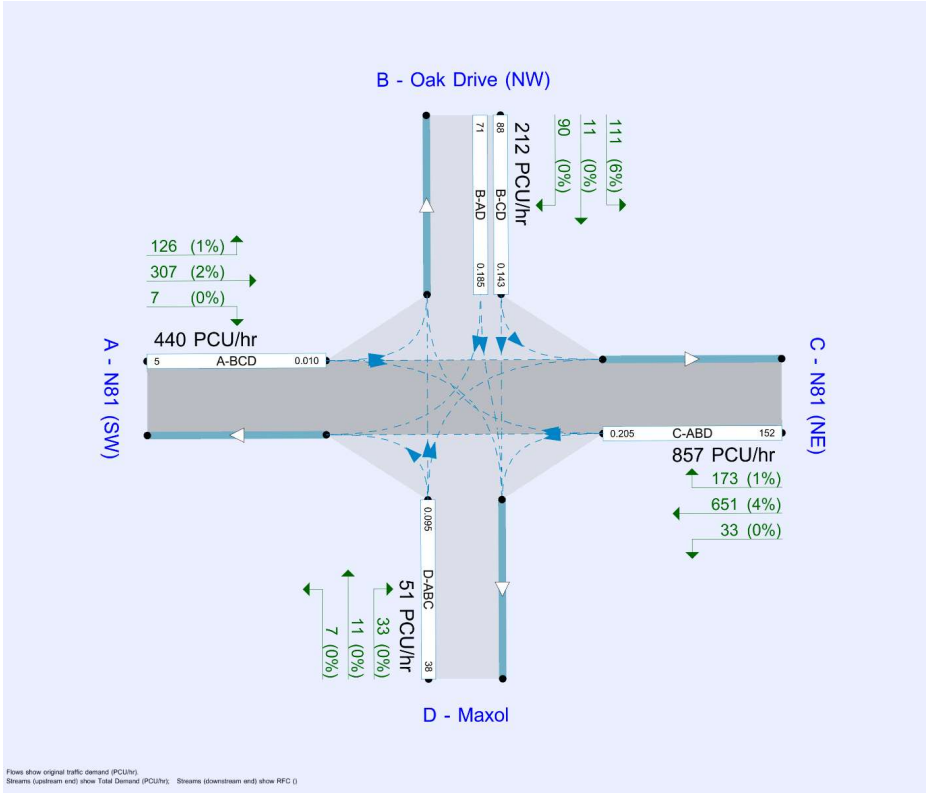
File summary

File Description

Title	Residential Development
Location	Blessington, Wicklow
Site number	
Date	26/07/2023
Version	
Status	Planning
Identifier	
Client	Cairn
Jobnumber	220145
Enumerator	HEADOFFICE\mckennam
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.

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Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 DM	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 DM	PM	ONE HOUR	17:15	18:45	15	✓
D3	2031 DM	AM	ONE HOUR	08:00	09:30	15	✓
D4	2031 DM	PM	ONE HOUR	17:15	18:45	15	✓
D5	2041 DM	AM	ONE HOUR	08:00	09:30	15	✓
D6	2041 DM	PM	ONE HOUR	17:15	18:45	15	✓
D7	2026 DS	AM	ONE HOUR	08:00	09:30	15	✓
D8	2026 DS	PM	ONE HOUR	17:15	18:45	15	✓
D9	2031 DS	AM	ONE HOUR	08:00	09:30	15	✓
D10	2031 DS	PM	ONE HOUR	17:15	18:45	15	✓
D11	2041 DS	AM	ONE HOUR	08:00	09:30	15	✓
D12	2041 DS	PM	ONE HOUR	17:15	18:45	15	✓

Do-Minimum - 2026 DM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Minimum	✓	✓	D1, D2, D3, D4, D5, D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		5.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	541	0.087	0.220	0.220	-	-	-	0.138	0.314	-	0.220	0.220	0.110
B-C	774	0.105	0.265	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	608	0.098	0.247	0.247	-	-	-	0.155	0.353	0.155	-	-	-
B-D, offside lane	541	0.087	0.220	0.220	-	-	-	0.138	0.314	0.138	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 DM	AM	ONE HOUR	08:00	09:30	15	✓

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 - N81 (SW)		ONE HOUR	✓	623	100.000
B - Oak Drive (NW)		ONE HOUR	✓	367	100.000
C - N81 (NE)		ONE HOUR	✓	401	100.000
D - Maxol		ONE HOUR	✓	51	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	95	512	16
	B - Oak Drive (NW)	80	0	275	12
	C - N81 (NE)	218	160	0	23
	D - Maxol	16	12	23	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.56	15.76	1.3	C	259	389
B-AD	0.32	17.92	0.5	C	78	116
A-BCD	0.03	6.59	0.0	A	15	23
D-ABC	0.14	10.44	0.2	B	47	70
C-ABD	0.32	8.48	0.5	A	163	245

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	212	53	628	0.338	210	0.0	0.5	9.073	A
B-AD	64	16	380	0.169	63	0.0	0.2	11.351	B
A-BCD	12	3	590	0.021	12	0.0	0.0	6.227	A
D-ABC	38	10	484	0.079	38	0.0	0.1	8.059	A
C-ABD	128	32	639	0.200	127	0.0	0.3	7.096	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	254	63	598	0.425	253	0.5	0.8	11.016	B
B-AD	76	19	346	0.220	76	0.2	0.3	13.322	B
A-BCD	15	4	579	0.025	15	0.0	0.0	6.382	A
D-ABC	46	11	450	0.102	46	0.1	0.1	8.899	A
C-ABD	157	39	634	0.248	157	0.3	0.4	7.636	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	311	78	553	0.563	309	0.8	1.3	15.470	C
B-AD	93	23	294	0.315	92	0.3	0.4	17.754	C
A-BCD	18	5	565	0.032	18	0.0	0.0	6.586	A
D-ABC	56	14	402	0.140	56	0.1	0.2	10.410	B
C-ABD	204	51	634	0.321	203	0.4	0.5	8.453	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	311	78	553	0.563	311	1.3	1.3	15.759	C
B-AD	93	23	293	0.316	93	0.4	0.5	17.923	C
A-BCD	18	5	565	0.032	18	0.0	0.0	6.589	A
D-ABC	56	14	401	0.140	56	0.2	0.2	10.440	B
C-ABD	204	51	634	0.321	204	0.5	0.5	8.481	A

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09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	254	63	597	0.425	256	1.3	0.8	11.236	B
B-AD	76	19	345	0.221	77	0.5	0.3	13.449	B
A-BCD	15	4	579	0.025	15	0.0	0.0	6.386	A
D-ABC	46	11	449	0.102	46	0.2	0.1	8.931	A
C-ABD	157	39	635	0.248	158	0.5	0.4	7.672	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	212	53	627	0.338	213	0.8	0.5	9.223	A
B-AD	64	16	379	0.169	64	0.3	0.2	11.453	B
A-BCD	12	3	590	0.021	12	0.0	0.0	6.235	A
D-ABC	38	10	483	0.079	39	0.1	0.1	8.093	A
C-ABD	128	32	639	0.200	128	0.4	0.3	7.134	A

Do-Minimum - 2026 DM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Minimum	✓	✓	D1, D2, D3, D4, D5, D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		4.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	550	0.088	0.224	0.224	-	-	-	0.141	0.319	-	0.224	0.224	0.112
B-C	762	0.103	0.261	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	599	0.096	0.243	0.243	-	-	-	0.153	0.348	0.153	-	-	-
B-D, offside lane	550	0.088	0.224	0.224	-	-	-	0.141	0.319	0.141	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 DM	PM	ONE HOUR	17:15	18:45	15	✓

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 - N81 (SW)		ONE HOUR	✓	429	100.000
B - Oak Drive (NW)		ONE HOUR	✓	252	100.000
C - N81 (NE)		ONE HOUR	✓	878	100.000
D - Maxol		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	112	311	6
	B - Oak Drive (NW)	80	0	163	9
	C - N81 (NE)	597	252	0	29
	D - Maxol	6	9	29	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.32	9.75	0.5	A	155	232
B-AD	0.34	20.02	0.5	C	76	115
A-BCD	0.02	8.68	0.0	A	6	8
D-ABC	0.17	15.22	0.2	C	40	61
C-ABD	0.46	7.43	1.3	A	319	479

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	127	32	647	0.196	126	0.0	0.3	7.292	A
B-AD	63	16	361	0.175	62	0.0	0.2	12.021	B
A-BCD	5	1	496	0.009	5	0.0	0.0	7.324	A
D-ABC	33	8	394	0.084	33	0.0	0.1	9.949	A
C-ABD	232	58	781	0.297	230	0.0	0.5	6.618	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	151	38	620	0.244	151	0.3	0.3	8.114	A
B-AD	75	19	323	0.232	75	0.2	0.3	14.463	B
A-BCD	5	1	464	0.012	5	0.0	0.0	7.845	A
D-ABC	40	10	349	0.113	39	0.1	0.1	11.632	B
C-ABD	302	75	829	0.364	301	0.5	0.7	6.922	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	186	47	577	0.322	185	0.3	0.5	9.699	A
B-AD	91	23	272	0.337	91	0.3	0.5	19.806	C
A-BCD	7	2	422	0.016	7	0.0	0.0	8.670	A
D-ABC	48	12	286	0.170	48	0.1	0.2	15.137	C
C-ABD	425	106	921	0.461	423	0.7	1.3	7.371	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	186	47	577	0.323	186	0.5	0.5	9.751	A
B-AD	91	23	271	0.337	91	0.5	0.5	20.016	C
A-BCD	7	2	421	0.016	7	0.0	0.0	8.682	A
D-ABC	48	12	285	0.170	48	0.2	0.2	15.220	C
C-ABD	425	106	922	0.461	425	1.3	1.3	7.433	A

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18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	152	38	619	0.245	152	0.5	0.3	8.167	A
B-AD	75	19	323	0.233	76	0.5	0.3	14.630	B
A-BCD	5	1	464	0.012	5	0.0	0.0	7.862	A
D-ABC	40	10	348	0.114	40	0.2	0.1	11.706	B
C-ABD	302	75	831	0.363	304	1.3	0.8	7.001	A

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	127	32	646	0.196	127	0.3	0.3	7.343	A
B-AD	63	16	360	0.175	63	0.3	0.2	12.153	B
A-BCD	5	1	495	0.009	5	0.0	0.0	7.339	A
D-ABC	33	8	393	0.084	33	0.1	0.1	10.009	B
C-ABD	232	58	781	0.297	233	0.8	0.5	6.692	A

Do-Minimum - 2031 DM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Minimum	✓	✓	D1, D2, D3, D4, D5, D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		6.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	541	0.087	0.220	0.220	-	-	-	0.138	0.314	-	0.220	0.220	0.110
B-C	774	0.105	0.265	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	608	0.098	0.247	0.247	-	-	-	0.155	0.353	0.155	-	-	-
B-D, offside lane	541	0.087	0.220	0.220	-	-	-	0.138	0.314	0.138	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 DM	AM	ONE HOUR	08:00	09:30	15	✓

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 - N81 (SW)		ONE HOUR	✓	665	100.000
B - Oak Drive (NW)		ONE HOUR	✓	387	100.000
C - N81 (NE)		ONE HOUR	✓	427	100.000
D - Maxol		ONE HOUR	✓	54	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	102	546	17
	B - Oak Drive (NW)	85	0	290	12
	C - N81 (NE)	233	169	0	25
	D - Maxol	17	12	25	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.61	18.27	1.6	C	273	410
B-AD	0.36	20.52	0.5	C	82	123
A-BCD	0.03	6.66	0.0	A	16	24
D-ABC	0.16	11.14	0.2	B	50	74
C-ABD	0.35	8.79	0.6	A	175	263

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	224	56	619	0.362	221	0.0	0.6	9.536	A
B-AD	68	17	369	0.184	67	0.0	0.2	11.885	B
A-BCD	13	3	587	0.022	13	0.0	0.0	6.276	A
D-ABC	41	10	473	0.086	40	0.0	0.1	8.311	A
C-ABD	136	34	637	0.214	135	0.0	0.3	7.247	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	267	67	586	0.456	266	0.6	0.9	11.879	B
B-AD	81	20	332	0.243	80	0.2	0.3	14.266	B
A-BCD	16	4	575	0.027	16	0.0	0.0	6.440	A
D-ABC	49	12	436	0.111	48	0.1	0.1	9.282	A
C-ABD	169	42	633	0.267	168	0.3	0.4	7.843	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	328	82	537	0.611	325	0.9	1.6	17.771	C
B-AD	98	25	274	0.357	97	0.3	0.5	20.206	C
A-BCD	20	5	561	0.035	20	0.0	0.0	6.653	A
D-ABC	59	15	383	0.155	59	0.1	0.2	11.095	B
C-ABD	221	55	636	0.347	220	0.4	0.6	8.757	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	328	82	536	0.612	328	1.6	1.6	18.273	C
B-AD	98	25	273	0.359	98	0.5	0.5	20.523	C
A-BCD	20	5	561	0.035	20	0.0	0.0	6.659	A
D-ABC	59	15	383	0.155	59	0.2	0.2	11.140	B
C-ABD	221	55	636	0.347	221	0.6	0.6	8.794	A

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09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	267	67	585	0.457	270	1.6	0.9	12.210	B
B-AD	81	20	331	0.243	81	0.5	0.3	14.455	B
A-BCD	16	4	575	0.027	16	0.0	0.0	6.445	A
D-ABC	49	12	435	0.112	49	0.2	0.1	9.328	A
C-ABD	169	42	633	0.266	169	0.6	0.4	7.887	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	224	56	618	0.362	225	0.9	0.6	9.724	A
B-AD	68	17	368	0.184	68	0.3	0.2	12.015	B
A-BCD	13	3	586	0.022	13	0.0	0.0	6.285	A
D-ABC	41	10	472	0.086	41	0.1	0.1	8.350	A
C-ABD	136	34	637	0.214	137	0.4	0.3	7.295	A

Do-Minimum - 2031 DM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Minimum	✓	✓	D1, D2, D3, D4, D5, D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		4.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	551	0.089	0.224	0.224	-	-	-	0.141	0.320	-	0.224	0.224	0.112
B-C	762	0.103	0.260	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	599	0.096	0.243	0.243	-	-	-	0.153	0.347	0.153	-	-	-
B-D, offside lane	551	0.089	0.224	0.224	-	-	-	0.141	0.320	0.141	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 DM	PM	ONE HOUR	17:15	18:45	15	✓

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 - N81 (SW)		ONE HOUR	✓	458	100.000
B - Oak Drive (NW)		ONE HOUR	✓	266	100.000
C - N81 (NE)		ONE HOUR	✓	932	100.000
D - Maxol		ONE HOUR	✓	48	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	120	331	7
	B - Oak Drive (NW)	85	0	171	10
	C - N81 (NE)	637	264	0	31
	D - Maxol	7	10	31	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.35	10.55	0.6	B	163	244
B-AD	0.38	22.94	0.6	C	81	122
A-BCD	0.02	8.99	0.0	A	7	10
D-ABC	0.20	16.96	0.2	C	44	66
C-ABD	0.49	7.58	1.5	A	348	522

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	133	33	637	0.209	132	0.0	0.3	7.521	A
B-AD	67	17	349	0.192	66	0.0	0.2	12.667	B
A-BCD	5	1	487	0.011	5	0.0	0.0	7.477	A
D-ABC	36	9	382	0.095	36	0.0	0.1	10.382	B
C-ABD	249	62	793	0.314	247	0.0	0.6	6.674	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	159	40	607	0.262	159	0.3	0.4	8.486	A
B-AD	80	20	309	0.258	79	0.2	0.3	15.614	C
A-BCD	6	2	454	0.014	6	0.0	0.0	8.052	A
D-ABC	43	11	333	0.129	43	0.1	0.1	12.385	B
C-ABD	327	82	849	0.385	326	0.6	0.8	6.997	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	196	49	558	0.351	195	0.4	0.6	10.471	B
B-AD	97	24	254	0.382	96	0.3	0.6	22.595	C
A-BCD	8	2	409	0.019	8	0.0	0.0	8.969	A
D-ABC	53	13	266	0.199	52	0.1	0.2	16.829	C
C-ABD	468	117	955	0.490	465	0.8	1.5	7.506	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	196	49	557	0.352	196	0.6	0.6	10.550	B
B-AD	97	24	254	0.382	97	0.6	0.6	22.943	C
A-BCD	8	2	409	0.019	8	0.0	0.0	8.987	A
D-ABC	53	13	265	0.199	53	0.2	0.2	16.959	C
C-ABD	468	117	956	0.489	468	1.5	1.5	7.583	A

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18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	159	40	606	0.263	160	0.6	0.4	8.557	A
B-AD	80	20	309	0.258	81	0.6	0.4	15.862	C
A-BCD	6	2	453	0.014	6	0.0	0.0	8.073	A
D-ABC	43	11	332	0.130	44	0.2	0.2	12.491	B
C-ABD	327	82	852	0.384	330	1.5	0.9	7.096	A

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	133	33	636	0.209	134	0.4	0.3	7.587	A
B-AD	67	17	349	0.192	68	0.4	0.2	12.830	B
A-BCD	5	1	486	0.011	5	0.0	0.0	7.497	A
D-ABC	36	9	381	0.095	36	0.2	0.1	10.462	B
C-ABD	249	62	794	0.313	250	0.9	0.6	6.761	A

Do-Minimum - 2041 DM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Minimum	✓	✓	D1, D2, D3, D4, D5, D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		7.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	542	0.087	0.220	0.220	-	-	-	0.138	0.314	-	0.220	0.220	0.110
B-C	773	0.105	0.264	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	608	0.098	0.247	0.247	-	-	-	0.155	0.353	0.155	-	-	-
B-D, offside lane	542	0.087	0.220	0.220	-	-	-	0.138	0.314	0.138	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2041 DM	AM	ONE HOUR	08:00	09:30	15	✓

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 - N81 (SW)		ONE HOUR	✓	697	100.000
B - Oak Drive (NW)		ONE HOUR	✓	404	100.000
C - N81 (NE)		ONE HOUR	✓	447	100.000
D - Maxol		ONE HOUR	✓	57	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	107	572	18
	B - Oak Drive (NW)	90	0	301	13
	C - N81 (NE)	245	176	0	26
	D - Maxol	18	13	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.66	21.20	2.0	C	284	426
B-AD	0.41	23.63	0.7	C	87	130
A-BCD	0.04	6.71	0.0	A	17	26
D-ABC	0.17	11.74	0.2	B	52	78
C-ABD	0.37	9.05	0.7	A	185	278

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	232	58	610	0.381	230	0.0	0.6	9.963	A
B-AD	72	18	361	0.199	71	0.0	0.2	12.383	B
A-BCD	14	3	584	0.024	14	0.0	0.0	6.314	A
D-ABC	43	11	465	0.092	43	0.0	0.1	8.509	A
C-ABD	143	36	635	0.225	142	0.0	0.3	7.371	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	278	69	575	0.484	277	0.6	1.0	12.721	B
B-AD	85	21	321	0.265	85	0.2	0.4	15.196	C
A-BCD	17	4	572	0.029	17	0.0	0.0	6.484	A
D-ABC	51	13	426	0.120	51	0.1	0.1	9.594	A
C-ABD	178	44	632	0.281	177	0.3	0.4	8.008	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	341	85	521	0.655	337	1.0	1.9	20.357	C
B-AD	104	26	257	0.403	102	0.4	0.6	23.067	C
A-BCD	21	5	558	0.037	21	0.0	0.0	6.704	A
D-ABC	63	16	371	0.169	62	0.1	0.2	11.678	B
C-ABD	234	59	638	0.367	233	0.4	0.7	9.008	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	341	85	520	0.656	341	1.9	2.0	21.204	C
B-AD	104	26	256	0.405	104	0.6	0.7	23.628	C
A-BCD	21	5	558	0.037	21	0.0	0.0	6.710	A
D-ABC	63	16	369	0.170	63	0.2	0.2	11.738	B
C-ABD	234	59	639	0.367	234	0.7	0.7	9.051	A

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09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	278	69	574	0.484	282	2.0	1.0	13.202	B
B-AD	85	21	320	0.266	86	0.7	0.4	15.477	C
A-BCD	17	4	572	0.029	17	0.0	0.0	6.490	A
D-ABC	51	13	425	0.121	51	0.2	0.1	9.652	A
C-ABD	178	44	633	0.281	179	0.7	0.5	8.063	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	232	58	609	0.382	234	1.0	0.7	10.196	B
B-AD	72	18	360	0.199	72	0.4	0.3	12.541	B
A-BCD	14	3	584	0.024	14	0.0	0.0	6.324	A
D-ABC	43	11	464	0.092	43	0.1	0.1	8.557	A
C-ABD	143	36	635	0.225	144	0.5	0.3	7.422	A

Do-Minimum - 2041 DM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Minimum	✓	✓	D1, D2, D3, D4, D5, D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		4.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	552	0.089	0.224	0.224	-	-	-	0.141	0.320	-	0.224	0.224	0.112
B-C	761	0.103	0.260	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	598	0.096	0.243	0.243	-	-	-	0.153	0.347	0.153	-	-	-
B-D, offside lane	552	0.089	0.224	0.224	-	-	-	0.141	0.320	0.141	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2041 DM	PM	ONE HOUR	17:15	18:45	15	✓

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 - N81 (SW)		ONE HOUR	✓	479	100.000
B - Oak Drive (NW)		ONE HOUR	✓	278	100.000
C - N81 (NE)		ONE HOUR	✓	976	100.000
D - Maxol		ONE HOUR	✓	51	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	126	346	7
	B - Oak Drive (NW)	90	0	177	11
	C - N81 (NE)	669	274	0	33
	D - Maxol	7	11	33	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.38	11.40	0.6	B	169	254
B-AD	0.43	26.10	0.7	D	86	129
A-BCD	0.02	9.25	0.0	A	7	10
D-ABC	0.23	18.90	0.3	C	47	70
C-ABD	0.51	7.72	1.7	A	373	560

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	138	35	628	0.220	137	0.0	0.3	7.732	A
B-AD	71	18	341	0.209	70	0.0	0.3	13.243	B
A-BCD	5	1	479	0.011	5	0.0	0.0	7.603	A
D-ABC	38	10	369	0.104	38	0.0	0.1	10.849	B
C-ABD	264	66	805	0.328	261	0.0	0.6	6.712	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	165	41	596	0.278	165	0.3	0.4	8.833	A
B-AD	84	21	299	0.283	84	0.3	0.4	16.704	C
A-BCD	6	2	444	0.014	6	0.0	0.0	8.226	A
D-ABC	46	11	319	0.144	46	0.1	0.2	13.183	B
C-ABD	349	87	868	0.403	348	0.6	0.9	7.055	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	203	51	539	0.377	203	0.4	0.6	11.283	B
B-AD	103	26	241	0.426	101	0.4	0.7	25.540	D
A-BCD	8	2	398	0.020	8	0.0	0.0	9.231	A
D-ABC	56	14	248	0.227	56	0.2	0.3	18.700	C
C-ABD	506	127	986	0.513	503	0.9	1.7	7.626	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	203	51	537	0.379	203	0.6	0.6	11.400	B
B-AD	103	26	240	0.427	103	0.7	0.7	26.103	D
A-BCD	8	2	397	0.020	8	0.0	0.0	9.253	A
D-ABC	56	14	247	0.228	56	0.3	0.3	18.897	C
C-ABD	506	127	987	0.513	506	1.7	1.7	7.722	A

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18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	165	41	594	0.279	166	0.6	0.4	8.926	A
B-AD	84	21	298	0.283	86	0.7	0.4	17.056	C
A-BCD	6	2	443	0.014	6	0.0	0.0	8.252	A
D-ABC	46	11	317	0.145	46	0.3	0.2	13.327	B
C-ABD	349	87	870	0.402	352	1.7	1.0	7.177	A

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	138	35	627	0.221	139	0.4	0.3	7.806	A
B-AD	71	18	340	0.209	72	0.4	0.3	13.444	B
A-BCD	5	1	478	0.011	5	0.0	0.0	7.626	A
D-ABC	38	10	368	0.104	39	0.2	0.1	10.940	B
C-ABD	264	66	806	0.327	265	1.0	0.6	6.809	A

Do-Something - 2026 DS, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do-Something	✓	✓	D7, D8, D9, D10, D11, D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		3.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	547	0.088	0.222	0.222	-	-	-	0.140	0.317	-	0.222	0.222	0.111
B-C	767	0.104	0.262	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	603	0.097	0.245	0.245	-	-	-	0.154	0.350	0.154	-	-	-
B-D, offside lane	547	0.088	0.222	0.222	-	-	-	0.140	0.317	0.140	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 DS	AM	ONE HOUR	08:00	09:30	15	✓

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 - N81 (SW)		ONE HOUR	✓	578	100.000
B - Oak Drive (NW)		ONE HOUR	✓	281	100.000
C - N81 (NE)		ONE HOUR	✓	347	100.000
D - Maxol		ONE HOUR	✓	51	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	95	467	16
	B - Oak Drive (NW)	80	0	189	12
	C - N81 (NE)	211	113	0	23
	D - Maxol	16	12	23	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.38	10.99	0.7	B	180	270
B-AD	0.28	14.83	0.4	B	78	117
A-BCD	0.03	6.39	0.0	A	15	23
D-ABC	0.13	9.39	0.1	A	47	70
C-ABD	0.22	7.58	0.3	A	111	167

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	147	37	630	0.234	146	0.0	0.3	7.849	A
B-AD	64	16	404	0.159	63	0.0	0.2	10.546	B
A-BCD	12	3	602	0.020	12	0.0	0.0	6.103	A
D-ABC	38	10	508	0.076	38	0.0	0.1	7.654	A
C-ABD	89	22	636	0.139	88	0.0	0.2	6.636	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	176	44	603	0.293	176	0.3	0.4	8.912	A
B-AD	76	19	376	0.203	76	0.2	0.3	12.005	B
A-BCD	15	4	593	0.025	15	0.0	0.0	6.228	A
D-ABC	46	11	480	0.096	46	0.1	0.1	8.294	A
C-ABD	108	27	626	0.172	108	0.2	0.2	7.020	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	216	54	563	0.384	216	0.4	0.6	10.926	B
B-AD	93	23	336	0.277	92	0.3	0.4	14.761	B
A-BCD	18	5	582	0.031	18	0.0	0.0	6.393	A
D-ABC	56	14	440	0.128	56	0.1	0.1	9.376	A
C-ABD	137	34	618	0.222	137	0.2	0.3	7.567	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	216	54	563	0.385	216	0.6	0.7	10.987	B
B-AD	93	23	336	0.277	93	0.4	0.4	14.828	B
A-BCD	18	5	581	0.031	18	0.0	0.0	6.394	A
D-ABC	56	14	440	0.128	56	0.1	0.1	9.390	A
C-ABD	137	34	618	0.222	137	0.3	0.3	7.576	A

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09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	176	44	602	0.293	177	0.7	0.4	8.978	A
B-AD	76	19	375	0.203	77	0.4	0.3	12.074	B
A-BCD	15	4	593	0.025	15	0.0	0.0	6.231	A
D-ABC	46	11	479	0.096	46	0.1	0.1	8.311	A
C-ABD	108	27	627	0.172	108	0.3	0.2	7.034	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	147	37	630	0.234	148	0.4	0.3	7.914	A
B-AD	64	16	404	0.159	64	0.3	0.2	10.618	B
A-BCD	12	3	602	0.020	12	0.0	0.0	6.109	A
D-ABC	38	10	508	0.076	38	0.1	0.1	7.675	A
C-ABD	89	22	636	0.139	89	0.2	0.2	6.659	A

Do-Something - 2026 DS, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do-Something	✓	✓	D7, D8, D9, D10, D11, D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		2.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	566	0.091	0.230	0.230	-	-	-	0.145	0.329	-	0.230	0.230	0.115
B-C	742	0.100	0.254	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	583	0.094	0.237	0.237	-	-	-	0.149	0.339	0.149	-	-	-
B-D, offside lane	566	0.091	0.230	0.230	-	-	-	0.145	0.329	0.145	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 DS	PM	ONE HOUR	17:15	18:45	15	✓

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 - N81 (SW)		ONE HOUR	✓	394	100.000
B - Oak Drive (NW)		ONE HOUR	✓	191	100.000
C - N81 (NE)		ONE HOUR	✓	768	100.000
D - Maxol		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	112	276	6
	B - Oak Drive (NW)	80	0	102	9
	C - N81 (NE)	581	158	0	29
	D - Maxol	6	9	29	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.21	8.31	0.3	A	99	148
B-AD	0.28	15.37	0.4	C	77	115
A-BCD	0.01	7.97	0.0	A	6	8
D-ABC	0.14	12.58	0.2	B	40	61
C-ABD	0.28	6.36	0.5	A	178	267

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	81	20	635	0.127	80	0.0	0.2	6.855	A
B-AD	63	16	402	0.157	62	0.0	0.2	10.565	B
A-BCD	5	1	521	0.009	5	0.0	0.0	6.967	A
D-ABC	33	8	426	0.078	33	0.0	0.1	9.141	A
C-ABD	135	34	731	0.184	134	0.0	0.3	6.096	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	97	24	612	0.158	96	0.2	0.2	7.384	A
B-AD	75	19	370	0.203	75	0.2	0.3	12.177	B
A-BCD	5	1	495	0.011	5	0.0	0.0	7.359	A
D-ABC	40	10	388	0.102	39	0.1	0.1	10.326	B
C-ABD	170	43	756	0.225	170	0.3	0.3	6.228	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	119	30	577	0.206	118	0.2	0.3	8.293	A
B-AD	92	23	326	0.281	91	0.3	0.4	15.291	C
A-BCD	7	2	459	0.015	7	0.0	0.0	7.965	A
D-ABC	48	12	335	0.145	48	0.1	0.2	12.549	B
C-ABD	229	57	804	0.285	228	0.3	0.5	6.352	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	119	30	576	0.206	119	0.3	0.3	8.311	A
B-AD	92	23	326	0.281	92	0.4	0.4	15.367	C
A-BCD	7	2	459	0.015	7	0.0	0.0	7.970	A
D-ABC	48	12	335	0.145	48	0.2	0.2	12.579	B
C-ABD	229	57	805	0.285	229	0.5	0.5	6.364	A

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18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	97	24	611	0.158	97	0.3	0.2	7.406	A
B-AD	75	19	370	0.203	76	0.4	0.3	12.249	B
A-BCD	5	1	494	0.011	5	0.0	0.0	7.364	A
D-ABC	40	10	388	0.102	40	0.2	0.1	10.358	B
C-ABD	170	43	757	0.225	171	0.5	0.4	6.252	A

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	81	20	634	0.127	81	0.2	0.2	6.882	A
B-AD	63	16	402	0.157	63	0.3	0.2	10.637	B
A-BCD	5	1	521	0.009	5	0.0	0.0	6.973	A
D-ABC	33	8	426	0.078	33	0.1	0.1	9.175	A
C-ABD	135	34	732	0.184	135	0.4	0.3	6.123	A

Do-Something - 2031 DS, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do-Something	✓	✓	D7, D8, D9, D10, D11, D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		4.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	547	0.088	0.222	0.222	-	-	-	0.140	0.317	-	0.222	0.222	0.111
B-C	767	0.104	0.262	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	603	0.097	0.245	0.245	-	-	-	0.154	0.350	0.154	-	-	-
B-D, offside lane	547	0.088	0.222	0.222	-	-	-	0.140	0.317	0.140	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 DS	AM	ONE HOUR	08:00	09:30	15	✓

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 - N81 (SW)		ONE HOUR	✓	616	100.000
B - Oak Drive (NW)		ONE HOUR	✓	296	100.000
C - N81 (NE)		ONE HOUR	✓	370	100.000
D - Maxol		ONE HOUR	✓	54	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	102	497	17
	B - Oak Drive (NW)	85	0	199	12
	C - N81 (NE)	226	119	0	25
	D - Maxol	17	12	25	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.41	11.84	0.7	B	189	284
B-AD	0.31	16.11	0.4	C	82	123
A-BCD	0.03	6.45	0.0	A	16	24
D-ABC	0.14	9.85	0.2	A	50	74
C-ABD	0.24	7.76	0.4	A	119	178

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	155	39	622	0.249	154	0.0	0.3	8.112	A
B-AD	68	17	395	0.172	67	0.0	0.2	10.951	B
A-BCD	13	3	599	0.022	13	0.0	0.0	6.144	A
D-ABC	41	10	499	0.082	40	0.0	0.1	7.846	A
C-ABD	94	23	632	0.148	93	0.0	0.2	6.747	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	185	46	592	0.313	185	0.3	0.5	9.335	A
B-AD	81	20	365	0.221	80	0.2	0.3	12.649	B
A-BCD	16	4	589	0.027	16	0.0	0.0	6.276	A
D-ABC	49	12	468	0.104	48	0.1	0.1	8.573	A
C-ABD	115	29	623	0.184	115	0.2	0.2	7.158	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	228	57	549	0.414	227	0.5	0.7	11.754	B
B-AD	98	25	322	0.305	98	0.3	0.4	16.012	C
A-BCD	19	5	578	0.034	19	0.0	0.0	6.449	A
D-ABC	59	15	425	0.140	59	0.1	0.2	9.831	A
C-ABD	147	37	617	0.238	146	0.2	0.3	7.749	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	228	57	549	0.415	228	0.7	0.7	11.839	B
B-AD	98	25	322	0.305	98	0.4	0.4	16.108	C
A-BCD	19	5	578	0.034	19	0.0	0.0	6.453	A
D-ABC	59	15	425	0.140	59	0.2	0.2	9.850	A
C-ABD	147	37	617	0.238	147	0.3	0.4	7.764	A

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09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	185	46	592	0.313	186	0.7	0.5	9.419	A
B-AD	81	20	364	0.221	81	0.4	0.3	12.740	B
A-BCD	16	4	589	0.027	16	0.0	0.0	6.279	A
D-ABC	49	12	468	0.104	49	0.2	0.1	8.596	A
C-ABD	115	29	624	0.184	115	0.4	0.2	7.178	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	155	39	621	0.250	156	0.5	0.4	8.190	A
B-AD	68	17	395	0.172	68	0.3	0.2	11.037	B
A-BCD	13	3	599	0.022	13	0.0	0.0	6.148	A
D-ABC	41	10	498	0.082	41	0.1	0.1	7.873	A
C-ABD	94	23	632	0.148	94	0.2	0.2	6.770	A

Do-Something - 2031 DS, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do-Something	✓	✓	D7, D8, D9, D10, D11, D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		3.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	567	0.091	0.230	0.230	-	-	-	0.145	0.329	-	0.230	0.230	0.115
B-C	742	0.100	0.254	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	583	0.094	0.237	0.237	-	-	-	0.149	0.338	0.149	-	-	-
B-D, offside lane	567	0.091	0.230	0.230	-	-	-	0.145	0.329	0.145	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 DS	PM	ONE HOUR	17:15	18:45	15	✓

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 - N81 (SW)		ONE HOUR	✓	420	100.000
B - Oak Drive (NW)		ONE HOUR	✓	203	100.000
C - N81 (NE)		ONE HOUR	✓	817	100.000
D - Maxol		ONE HOUR	✓	48	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	120	293	7
	B - Oak Drive (NW)	85	0	108	10
	C - N81 (NE)	620	166	0	31
	D - Maxol	7	10	31	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.22	8.74	0.3	A	105	157
B-AD	0.31	16.87	0.5	C	81	122
A-BCD	0.02	8.20	0.0	A	7	10
D-ABC	0.17	13.60	0.2	B	44	66
C-ABD	0.30	6.39	0.6	A	192	288

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	21	626	0.137	85	0.0	0.2	7.021	A
B-AD	67	17	392	0.171	66	0.0	0.2	11.019	B
A-BCD	5	1	513	0.010	5	0.0	0.0	7.091	A
D-ABC	36	9	415	0.087	36	0.0	0.1	9.470	A
C-ABD	144	36	738	0.195	143	0.0	0.3	6.125	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	103	26	601	0.171	102	0.2	0.2	7.627	A
B-AD	80	20	358	0.223	80	0.2	0.3	12.919	B
A-BCD	6	2	485	0.013	6	0.0	0.0	7.522	A
D-ABC	43	11	375	0.115	43	0.1	0.1	10.852	B
C-ABD	183	46	766	0.239	183	0.3	0.4	6.255	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	126	32	562	0.224	126	0.2	0.3	8.714	A
B-AD	97	24	311	0.313	97	0.3	0.4	16.762	C
A-BCD	8	2	447	0.018	8	0.0	0.0	8.192	A
D-ABC	53	13	318	0.166	53	0.1	0.2	13.555	B
C-ABD	249	62	823	0.303	248	0.4	0.6	6.367	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	126	32	561	0.225	126	0.3	0.3	8.739	A
B-AD	97	24	311	0.314	97	0.4	0.5	16.871	C
A-BCD	8	2	447	0.018	8	0.0	0.0	8.196	A
D-ABC	53	13	318	0.166	53	0.2	0.2	13.598	B
C-ABD	249	62	824	0.302	249	0.6	0.6	6.388	A

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18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	103	26	600	0.171	103	0.3	0.2	7.655	A
B-AD	80	20	358	0.223	81	0.5	0.3	13.019	B
A-BCD	6	2	485	0.013	6	0.0	0.0	7.528	A
D-ABC	43	11	374	0.115	43	0.2	0.1	10.895	B
C-ABD	183	46	768	0.238	184	0.6	0.4	6.282	A

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	21	625	0.137	86	0.2	0.2	7.056	A
B-AD	67	17	392	0.171	67	0.3	0.2	11.109	B
A-BCD	5	1	512	0.010	5	0.0	0.0	7.098	A
D-ABC	36	9	415	0.087	36	0.1	0.1	9.513	A
C-ABD	144	36	738	0.195	144	0.4	0.3	6.159	A

Do-Something - 2041 DS, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do-Something	✓	✓	D7, D8, D9, D10, D11, D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		4.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	547	0.088	0.222	0.222	-	-	-	0.140	0.318	-	0.222	0.222	0.111
B-C	766	0.104	0.262	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	602	0.097	0.245	0.245	-	-	-	0.154	0.350	0.154	-	-	-
B-D, offside lane	547	0.088	0.222	0.222	-	-	-	0.140	0.318	0.140	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2041 DS	AM	ONE HOUR	08:00	09:30	15	✓

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 - N81 (SW)		ONE HOUR	✓	646	100.000
B - Oak Drive (NW)		ONE HOUR	✓	311	100.000
C - N81 (NE)		ONE HOUR	✓	387	100.000
D - Maxol		ONE HOUR	✓	57	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	107	521	18
	B - Oak Drive (NW)	90	0	208	13
	C - N81 (NE)	237	124	0	26
	D - Maxol	18	13	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.45	12.81	0.8	B	198	297
B-AD	0.34	17.44	0.5	C	87	131
A-BCD	0.04	6.49	0.0	A	17	26
D-ABC	0.15	10.25	0.2	B	52	78
C-ABD	0.25	7.92	0.4	A	125	187

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	162	41	614	0.265	161	0.0	0.4	8.384	A
B-AD	72	18	388	0.185	71	0.0	0.2	11.326	B
A-BCD	14	3	597	0.023	14	0.0	0.0	6.175	A
D-ABC	43	11	492	0.087	43	0.0	0.1	8.004	A
C-ABD	98	25	629	0.156	97	0.0	0.2	6.836	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	194	49	582	0.334	194	0.4	0.5	9.786	A
B-AD	85	21	356	0.240	85	0.2	0.3	13.269	B
A-BCD	17	4	587	0.028	17	0.0	0.0	6.312	A
D-ABC	51	13	460	0.111	51	0.1	0.1	8.806	A
C-ABD	121	30	621	0.194	120	0.2	0.3	7.277	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	238	60	536	0.445	237	0.5	0.8	12.692	B
B-AD	104	26	310	0.335	103	0.3	0.5	17.301	C
A-BCD	21	5	576	0.036	21	0.0	0.0	6.488	A
D-ABC	63	16	414	0.151	63	0.1	0.2	10.225	B
C-ABD	155	39	615	0.252	155	0.3	0.4	7.906	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	238	60	535	0.445	238	0.8	0.8	12.814	B
B-AD	104	26	310	0.335	104	0.5	0.5	17.441	C
A-BCD	21	5	576	0.036	21	0.0	0.0	6.490	A
D-ABC	63	16	414	0.152	63	0.2	0.2	10.249	B
C-ABD	155	39	616	0.252	155	0.4	0.4	7.924	A

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09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	194	49	581	0.334	195	0.8	0.5	9.894	A
B-AD	85	21	356	0.240	86	0.5	0.3	13.387	B
A-BCD	17	4	587	0.028	17	0.0	0.0	6.318	A
D-ABC	51	13	459	0.112	51	0.2	0.1	8.834	A
C-ABD	121	30	621	0.194	121	0.4	0.3	7.295	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	162	41	613	0.265	163	0.5	0.4	8.477	A
B-AD	72	18	388	0.185	72	0.3	0.2	11.428	B
A-BCD	14	3	597	0.023	14	0.0	0.0	6.181	A
D-ABC	43	11	491	0.087	43	0.1	0.1	8.035	A
C-ABD	98	25	629	0.156	99	0.3	0.2	6.863	A

Do-Something - 2041 DS, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do-Something	✓	✓	D7, D8, D9, D10, D11, D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	IRR Junction 7	Crossroads	Two-way		3.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (SW)		Major
B	Oak Drive (NW)		Minor
C	N81 (NE)		Major
D	Maxol		Minor

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)
A - N81 (SW)	8.70			150.0	✓	1.00
C - N81 (NE)	8.70			250.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oak Drive (NW)	One lane plus flare		10.00	9.80	9.50	7.40	6.60	✓	3.00	40	34
D - Maxol	One lane	5.00								30	25

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Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.226	0.323	0.226	-	-	-
B-A	568	0.091	0.231	0.231	-	-	-	0.145	0.330	-	0.231	0.231	0.115
B-C	740	0.100	0.253	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	581	0.093	0.236	0.236	-	-	-	0.149	0.338	0.149	-	-	-
B-D, offside lane	568	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
C-B	719	0.246	0.246	0.351	-	-	-	-	-	-	-	-	-
D-A	768	-	-	-	-	-	-	0.263	-	0.104	-	-	-
D-B, nearside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-B, offside lane	600	0.153	0.153	0.348	-	-	-	0.244	0.244	0.096	-	-	-
D-C	600	-	0.153	0.348	0.122	0.244	0.244	0.244	0.244	0.096	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2041 DS	PM	ONE HOUR	17:15	18:45	15	✓

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 - N81 (SW)		ONE HOUR	✓	440	100.000
B - Oak Drive (NW)		ONE HOUR	✓	212	100.000
C - N81 (NE)		ONE HOUR	✓	857	100.000
D - Maxol		ONE HOUR	✓	51	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	126	307	7
	B - Oak Drive (NW)	90	0	111	11
	C - N81 (NE)	651	173	0	33
	D - Maxol	7	11	33	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - N81 (SW)	B - Oak Drive (NW)	C - N81 (NE)	D - Maxol
From	A - N81 (SW)	0	1	2	0
	B - Oak Drive (NW)	0	0	6	0
	C - N81 (NE)	4	1	0	0
	D - Maxol	0	0	0	0

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-CD	0.24	9.16	0.3	A	108	162
B-AD	0.34	18.33	0.5	C	86	129
A-BCD	0.02	8.39	0.0	A	7	10
D-ABC	0.19	14.67	0.2	B	47	70
C-ABD	0.32	6.40	0.7	A	205	307

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	617	0.143	88	0.0	0.2	7.178	A
B-AD	71	18	385	0.185	70	0.0	0.2	11.411	B
A-BCD	5	1	506	0.010	5	0.0	0.0	7.192	A
D-ABC	38	10	404	0.095	38	0.0	0.1	9.817	A
C-ABD	152	38	744	0.205	151	0.0	0.3	6.149	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	106	26	589	0.180	106	0.2	0.2	7.859	A
B-AD	85	21	349	0.243	84	0.2	0.3	13.583	B
A-BCD	6	2	476	0.013	6	0.0	0.0	7.657	A
D-ABC	46	11	361	0.127	46	0.1	0.1	11.397	B
C-ABD	195	49	776	0.251	194	0.3	0.4	6.274	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	130	33	546	0.239	130	0.2	0.3	9.126	A
B-AD	103	26	299	0.344	102	0.3	0.5	18.187	C
A-BCD	8	2	437	0.018	8	0.0	0.0	8.386	A
D-ABC	56	14	302	0.186	56	0.1	0.2	14.613	B
C-ABD	268	67	840	0.318	267	0.4	0.6	6.382	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	130	33	545	0.239	130	0.3	0.3	9.160	A
B-AD	103	26	299	0.344	103	0.5	0.5	18.335	C
A-BCD	8	2	437	0.018	8	0.0	0.0	8.393	A
D-ABC	56	14	301	0.186	56	0.2	0.2	14.673	B
C-ABD	268	67	841	0.318	268	0.6	0.7	6.405	A

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18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	106	26	588	0.180	106	0.3	0.2	7.896	A
B-AD	85	21	349	0.243	85	0.5	0.3	13.709	B
A-BCD	6	2	476	0.013	6	0.0	0.0	7.667	A
D-ABC	46	11	361	0.127	46	0.2	0.1	11.454	B
C-ABD	195	49	778	0.250	196	0.7	0.4	6.305	A

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	616	0.144	89	0.2	0.2	7.219	A
B-AD	71	18	385	0.185	72	0.3	0.2	11.515	B
A-BCD	5	1	505	0.011	5	0.0	0.0	7.199	A
D-ABC	38	10	404	0.095	39	0.1	0.1	9.866	A
C-ABD	152	38	744	0.204	153	0.4	0.3	6.185	A

APPENDIX 12D Arcady 9 – Roundabout Module Junctions 9 Performance

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013

Filename: Junction 1 Inner Relief Road _ Link Road.j9
Path: G:\2022\p220145\calcs\arcady
Report generation date: 16/08/2023 14:12:26

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do Minimum - 2026 DM									
1 - Link Rd (SE)	A1 D1	0.1	3.09	0.10	A	A1 D2	0.2	3.37	0.14	A
2 - IRR (W)		0.5	3.88	0.32	A		0.3	3.31	0.21	A
3 - IRR (NE)		0.2	2.92	0.14	A		0.3	3.10	0.21	A
	Do Minimum - 2031 DM									
1 - Link Rd (SE)	A1 D3	0.1	3.13	0.11	A	A1 D4	0.2	3.44	0.15	A
2 - IRR (W)		0.6	4.02	0.34	A		0.3	3.37	0.22	A
3 - IRR (NE)		0.2	2.96	0.14	A		0.3	3.16	0.22	A
	Do Minimum - 2041 DM									
1 - Link Rd (SE)	A1 D5	0.1	3.15	0.11	A	A1 D6	0.2	3.49	0.16	A
2 - IRR (W)		0.6	4.12	0.36	A		0.3	3.42	0.23	A
3 - IRR (NE)		0.2	2.99	0.15	A		0.3	3.21	0.23	A

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do Something - 2026 DS									
1 - Link Rd (SE)	A2 D7	0.1	3.15	0.11	A	A2 D8	0.2	3.45	0.15	A
2 - IRR (W)		0.6	4.15	0.36	A		0.4	3.53	0.25	A
3 - IRR (NE)		0.2	3.01	0.16	A		0.3	3.21	0.24	A
	Do Something - 2031 DS									
1 - Link Rd (SE)	A2 D9	0.1	3.19	0.11	A	A2 D10	0.2	3.52	0.16	A
2 - IRR (W)		0.7	4.32	0.39	A		0.4	3.61	0.27	A
3 - IRR (NE)		0.2	3.06	0.17	A		0.4	3.28	0.25	A
	Do Something - 2041 DS									
1 - Link Rd (SE)	A2 D11	0.1	3.22	0.12	A	A2 D12	0.2	3.58	0.17	A
2 - IRR (W)		0.7	4.47	0.41	A		0.4	3.67	0.28	A
3 - IRR (NE)		0.2	3.09	0.18	A		0.4	3.33	0.26	A

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

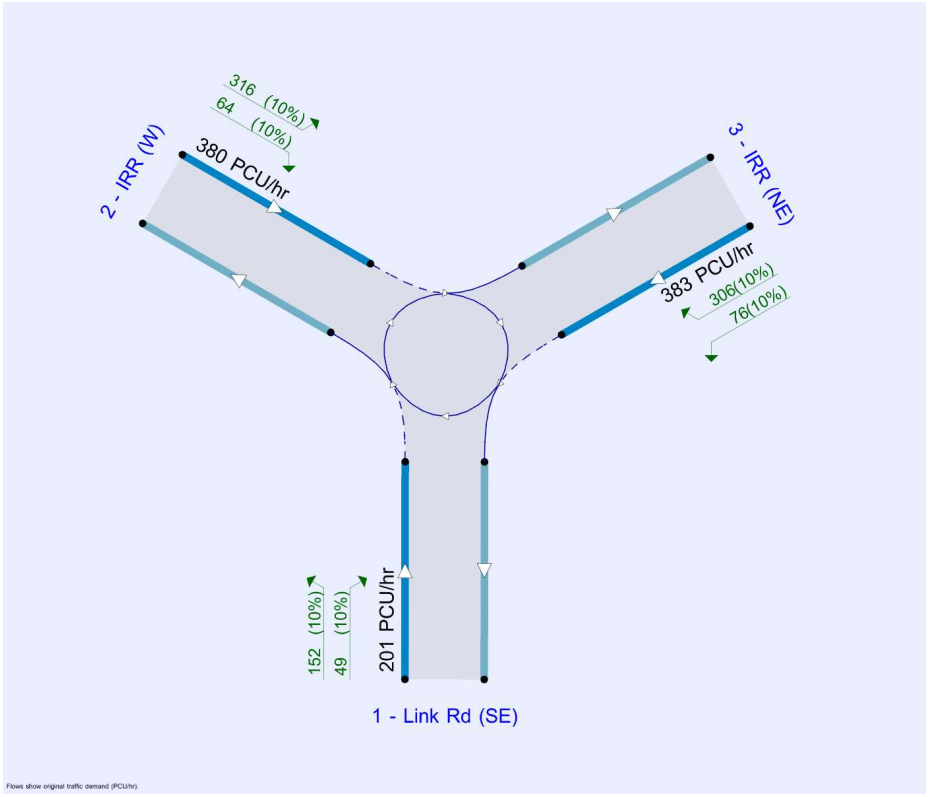
File summary

File Description

Title	Blessington Inner Relief Road
Location	Blessington, Wicklow
Site number	
Date	16/05/2023
Version	
Status	[no status]
Identifier	
Client	Wicklow County Council
Jobnumber	230058
Enumerator	HEADOFFICE\GarveyD
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

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 DM	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 DM	PM	ONE HOUR	17:15	18:45	15	✓
D3	2031 DM	AM	ONE HOUR	08:00	09:30	15	✓
D4	2031 DM	PM	ONE HOUR	17:15	18:45	15	✓
D5	2041 DM	AM	ONE HOUR	08:00	09:30	15	✓
D6	2041 DM	PM	ONE HOUR	17:15	18:45	15	✓
D7	2026 DS	AM	ONE HOUR	08:00	09:30	15	✓
D8	2026 DS	PM	ONE HOUR	17:15	18:45	15	✓
D9	2031 DS	AM	ONE HOUR	08:00	09:30	15	✓
D10	2031 DS	PM	ONE HOUR	17:15	18:45	15	✓
D11	2041 DS	AM	ONE HOUR	08:00	09:30	15	✓
D12	2041 DS	PM	ONE HOUR	17:15	18:45	15	✓

Do Minimum - 2026 DM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimum	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 DM	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	129	100.000
2 - IRR (W)		ONE HOUR	✓	435	100.000
3 - IRR (NE)		ONE HOUR	✓	193	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	82	47
	2 - IRR (W)	126	0	309
	3 - IRR (NE)	42	151	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.10	3.09	0.1	A	118	178
2 - IRR (W)	0.32	3.88	0.5	A	399	599
3 - IRR (NE)	0.14	2.92	0.2	A	177	266

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	97	24	113	1453	0.067	97	126	0.0	0.1	2.920	A
2 - IRR (W)	327	82	35	1507	0.217	326	175	0.0	0.3	3.350	A
3 - IRR (NE)	145	36	95	1596	0.091	145	267	0.0	0.1	2.729	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	116	29	136	1441	0.081	116	151	0.1	0.1	2.988	A
2 - IRR (W)	391	98	42	1503	0.260	391	209	0.3	0.4	3.559	A
3 - IRR (NE)	174	43	113	1585	0.109	173	320	0.1	0.1	2.804	A

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08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	142	36	166	1424	0.100	142	185	0.1	0.1	3.089	A
2 - IRR (W)	479	120	52	1498	0.320	478	256	0.4	0.5	3.882	A
3 - IRR (NE)	212	53	139	1570	0.135	212	392	0.1	0.2	2.915	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	142	36	166	1424	0.100	142	185	0.1	0.1	3.089	A
2 - IRR (W)	479	120	52	1498	0.320	479	257	0.5	0.5	3.885	A
3 - IRR (NE)	212	53	139	1570	0.135	212	392	0.2	0.2	2.915	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	116	29	136	1440	0.081	116	151	0.1	0.1	2.991	A
2 - IRR (W)	391	98	42	1503	0.260	392	210	0.5	0.4	3.565	A
3 - IRR (NE)	174	43	113	1585	0.109	174	320	0.2	0.1	2.805	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	97	24	114	1453	0.067	97	127	0.1	0.1	2.920	A
2 - IRR (W)	327	82	35	1507	0.217	328	176	0.4	0.3	3.360	A
3 - IRR (NE)	145	36	95	1596	0.091	145	268	0.1	0.1	2.732	A

Do Minimum - 2026 DM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimum	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Junction Network

Junctions

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

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 DM	PM	ONE HOUR	17:15	18:45	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

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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Link Rd (SE)		ONE HOUR	✓	174	100.000
2 - IRR (W)		ONE HOUR	✓	281	100.000
3 - IRR (NE)		ONE HOUR	✓	308	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	136	38
	2 - IRR (W)	57	0	224
	3 - IRR (NE)	63	245	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.14	3.37	0.2	A	160	239
2 - IRR (W)	0.21	3.31	0.3	A	258	387
3 - IRR (NE)	0.21	3.10	0.3	A	283	424

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	131	33	184	1414	0.093	131	90	0.0	0.1	3.086	A
2 - IRR (W)	212	53	29	1511	0.140	211	286	0.0	0.2	3.044	A
3 - IRR (NE)	232	58	43	1626	0.143	231	197	0.0	0.2	2.837	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	156	39	220	1394	0.112	156	108	0.1	0.1	3.199	A
2 - IRR (W)	253	63	34	1508	0.168	252	342	0.2	0.2	3.153	A
3 - IRR (NE)	277	69	51	1621	0.171	277	235	0.2	0.2	2.945	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	192	48	270	1366	0.140	191	132	0.1	0.2	3.370	A
2 - IRR (W)	309	77	42	1504	0.206	309	419	0.2	0.3	3.315	A
3 - IRR (NE)	339	85	63	1614	0.210	339	288	0.2	0.3	3.104	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	192	48	270	1366	0.140	192	132	0.2	0.2	3.370	A
2 - IRR (W)	309	77	42	1504	0.206	309	419	0.3	0.3	3.315	A
3 - IRR (NE)	339	85	63	1614	0.210	339	288	0.3	0.3	3.104	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	156	39	220	1394	0.112	157	108	0.2	0.1	3.203	A
2 - IRR (W)	253	63	34	1508	0.168	253	343	0.3	0.2	3.157	A
3 - IRR (NE)	277	69	51	1621	0.171	277	236	0.3	0.2	2.948	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	131	33	185	1413	0.093	131	90	0.1	0.1	3.090	A
2 - IRR (W)	212	53	29	1511	0.140	212	287	0.2	0.2	3.050	A
3 - IRR (NE)	232	58	43	1626	0.143	232	197	0.2	0.2	2.840	A

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Do Minimum - 2031 DM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimum	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 DM	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	137	100.000
2 - IRR (W)		ONE HOUR	✓	464	100.000
3 - IRR (NE)		ONE HOUR	✓	206	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	87	50
	2 - IRR (W)	134	0	330
	3 - IRR (NE)	45	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.11	3.13	0.1	A	126	189
2 - IRR (W)	0.34	4.02	0.6	A	426	639
3 - IRR (NE)	0.14	2.96	0.2	A	189	284

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	103	26	121	1449	0.071	103	134	0.0	0.1	2.942	A
2 - IRR (W)	349	87	38	1506	0.232	348	186	0.0	0.3	3.417	A
3 - IRR (NE)	155	39	101	1592	0.097	155	285	0.0	0.1	2.754	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	123	31	145	1436	0.086	123	161	0.1	0.1	3.016	A
2 - IRR (W)	417	104	45	1502	0.278	417	223	0.3	0.4	3.649	A
3 - IRR (NE)	185	46	120	1581	0.117	185	341	0.1	0.1	2.836	A

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08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	151	38	177	1418	0.106	151	197	0.1	0.1	3.125	A
2 - IRR (W)	511	128	55	1496	0.341	510	273	0.4	0.6	4.013	A
3 - IRR (NE)	227	57	147	1565	0.145	227	418	0.1	0.2	2.958	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	151	38	177	1418	0.106	151	197	0.1	0.1	3.125	A
2 - IRR (W)	511	128	55	1496	0.341	511	273	0.6	0.6	4.018	A
3 - IRR (NE)	227	57	148	1565	0.145	227	418	0.2	0.2	2.958	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	123	31	145	1435	0.086	123	161	0.1	0.1	3.019	A
2 - IRR (W)	417	104	45	1502	0.278	418	223	0.6	0.4	3.656	A
3 - IRR (NE)	185	46	121	1581	0.117	185	342	0.2	0.1	2.839	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	103	26	121	1449	0.071	103	135	0.1	0.1	2.945	A
2 - IRR (W)	349	87	38	1506	0.232	350	187	0.4	0.3	3.427	A
3 - IRR (NE)	155	39	101	1592	0.097	155	286	0.1	0.1	2.757	A

Do Minimum - 2031 DM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimum	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 DM	PM	ONE HOUR	17:15	18:45	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

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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Link Rd (SE)		ONE HOUR	✓	186	100.000
2 - IRR (W)		ONE HOUR	✓	298	100.000
3 - IRR (NE)		ONE HOUR	✓	327	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	145	41
	2 - IRR (W)	60	0	238
	3 - IRR (NE)	66	261	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.15	3.44	0.2	A	171	256
2 - IRR (W)	0.22	3.37	0.3	A	273	410
3 - IRR (NE)	0.22	3.16	0.3	A	300	450

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	140	35	196	1407	0.100	140	95	0.0	0.1	3.124	A
2 - IRR (W)	224	56	31	1510	0.149	224	305	0.0	0.2	3.077	A
3 - IRR (NE)	246	62	45	1625	0.152	245	209	0.0	0.2	2.869	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	167	42	234	1386	0.121	167	113	0.1	0.2	3.248	A
2 - IRR (W)	268	67	37	1506	0.178	268	365	0.2	0.2	3.196	A
3 - IRR (NE)	294	73	54	1620	0.182	294	251	0.2	0.2	2.986	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	205	51	287	1357	0.151	205	139	0.2	0.2	3.437	A
2 - IRR (W)	328	82	45	1502	0.218	328	447	0.2	0.3	3.373	A
3 - IRR (NE)	360	90	66	1612	0.223	360	307	0.2	0.3	3.161	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	205	51	287	1356	0.151	205	139	0.2	0.2	3.437	A
2 - IRR (W)	328	82	45	1502	0.218	328	447	0.3	0.3	3.373	A
3 - IRR (NE)	360	90	66	1612	0.223	360	307	0.3	0.3	3.161	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	167	42	235	1386	0.121	167	113	0.2	0.2	3.250	A
2 - IRR (W)	268	67	37	1506	0.178	268	365	0.3	0.2	3.200	A
3 - IRR (NE)	294	73	54	1619	0.182	294	251	0.3	0.2	2.988	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	140	35	197	1407	0.100	140	95	0.2	0.1	3.128	A
2 - IRR (W)	224	56	31	1510	0.149	225	306	0.2	0.2	3.081	A
3 - IRR (NE)	246	62	45	1625	0.152	246	210	0.2	0.2	2.873	A

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Do Minimum - 2041 DM, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimum	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2041 DM	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	143	100.000
2 - IRR (W)		ONE HOUR	✓	486	100.000
3 - IRR (NE)		ONE HOUR	✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	91	52
	2 - IRR (W)	140	0	346
	3 - IRR (NE)	47	168	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.11	3.15	0.1	A	131	197
2 - IRR (W)	0.36	4.12	0.6	A	446	669
3 - IRR (NE)	0.15	2.99	0.2	A	197	296

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	108	27	126	1446	0.074	107	140	0.0	0.1	2.958	A
2 - IRR (W)	366	91	39	1505	0.243	364	194	0.0	0.4	3.466	A
3 - IRR (NE)	162	40	105	1590	0.102	161	299	0.0	0.1	2.772	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	129	32	151	1432	0.090	128	168	0.1	0.1	3.037	A
2 - IRR (W)	437	109	47	1501	0.291	437	233	0.4	0.4	3.720	A
3 - IRR (NE)	193	48	126	1578	0.123	193	357	0.1	0.2	2.859	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	157	39	185	1413	0.111	157	206	0.1	0.1	3.152	A
2 - IRR (W)	535	134	57	1495	0.358	534	285	0.4	0.6	4.119	A
3 - IRR (NE)	237	59	154	1561	0.152	237	438	0.2	0.2	2.988	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	157	39	185	1413	0.111	157	206	0.1	0.1	3.152	A
2 - IRR (W)	535	134	57	1495	0.358	535	285	0.6	0.6	4.124	A
3 - IRR (NE)	237	59	154	1561	0.152	237	438	0.2	0.2	2.988	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	129	32	151	1432	0.090	129	168	0.1	0.1	3.037	A
2 - IRR (W)	437	109	47	1501	0.291	438	233	0.6	0.5	3.725	A
3 - IRR (NE)	193	48	126	1578	0.123	193	358	0.2	0.2	2.860	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	108	27	127	1446	0.074	108	141	0.1	0.1	2.959	A
2 - IRR (W)	366	91	39	1505	0.243	366	195	0.5	0.4	3.480	A
3 - IRR (NE)	162	40	106	1590	0.102	162	300	0.2	0.1	2.773	A

Do Minimum - 2041 DM, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimum	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2041 DM	PM	ONE HOUR	17:15	18:45	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

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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Link Rd (SE)		ONE HOUR	✓	194	100.000
2 - IRR (W)		ONE HOUR	✓	312	100.000
3 - IRR (NE)		ONE HOUR	✓	343	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	152	42
	2 - IRR (W)	63	0	249
	3 - IRR (NE)	70	273	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.16	3.49	0.2	A	178	267
2 - IRR (W)	0.23	3.42	0.3	A	286	429
3 - IRR (NE)	0.23	3.21	0.3	A	315	472

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	146	37	205	1402	0.104	146	100	0.0	0.1	3.149	A
2 - IRR (W)	235	59	32	1509	0.156	234	319	0.0	0.2	3.104	A
3 - IRR (NE)	258	65	47	1623	0.159	257	218	0.0	0.2	2.897	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	174	44	245	1380	0.126	174	119	0.1	0.2	3.284	A
2 - IRR (W)	280	70	38	1506	0.186	280	382	0.2	0.3	3.230	A
3 - IRR (NE)	308	77	57	1618	0.191	308	261	0.2	0.3	3.023	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	214	53	300	1349	0.158	213	146	0.2	0.2	3.486	A
2 - IRR (W)	344	86	46	1501	0.229	343	468	0.3	0.3	3.419	A
3 - IRR (NE)	378	94	69	1611	0.234	377	320	0.3	0.3	3.211	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	214	53	301	1349	0.158	214	146	0.2	0.2	3.486	A
2 - IRR (W)	344	86	46	1501	0.229	344	468	0.3	0.3	3.419	A
3 - IRR (NE)	378	94	69	1611	0.234	378	320	0.3	0.3	3.211	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	174	44	246	1380	0.126	175	120	0.2	0.2	3.286	A
2 - IRR (W)	280	70	38	1506	0.186	281	382	0.3	0.3	3.234	A
3 - IRR (NE)	308	77	57	1618	0.191	309	262	0.3	0.3	3.024	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	146	37	206	1402	0.104	146	100	0.2	0.1	3.153	A
2 - IRR (W)	235	59	32	1509	0.156	235	320	0.3	0.2	3.107	A
3 - IRR (NE)	258	65	47	1623	0.159	258	219	0.3	0.2	2.903	A

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Do Something - 2026 DS, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Something	✓	✓	D7,D8,D9,D10,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 DS	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	134	100.000
2 - IRR (W)		ONE HOUR	✓	492	100.000
3 - IRR (NE)		ONE HOUR	✓	232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	1	82	51
	2 - IRR (W)	126	0	366
	3 - IRR (NE)	48	184	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.11	3.15	0.1	A	123	184
2 - IRR (W)	0.36	4.15	0.6	A	451	677
3 - IRR (NE)	0.16	3.01	0.2	A	213	319

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	101	25	138	1439	0.070	101	131	0.0	0.1	2.958	A
2 - IRR (W)	370	93	39	1505	0.246	369	200	0.0	0.4	3.480	A
3 - IRR (NE)	175	44	95	1596	0.109	174	313	0.0	0.1	2.786	A

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08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	120	30	165	1424	0.085	120	157	0.1	0.1	3.036	A
2 - IRR (W)	442	111	47	1501	0.295	442	239	0.4	0.5	3.739	A
3 - IRR (NE)	209	52	114	1585	0.132	208	375	0.1	0.2	2.877	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	148	37	202	1404	0.105	147	192	0.1	0.1	3.152	A
2 - IRR (W)	542	135	57	1495	0.362	541	293	0.5	0.6	4.148	A
3 - IRR (NE)	255	64	140	1570	0.163	255	459	0.2	0.2	3.012	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	148	37	203	1403	0.105	148	193	0.1	0.1	3.152	A
2 - IRR (W)	542	135	57	1495	0.362	542	293	0.6	0.6	4.153	A
3 - IRR (NE)	255	64	140	1570	0.163	255	459	0.2	0.2	3.012	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	120	30	166	1424	0.085	121	158	0.1	0.1	3.040	A
2 - IRR (W)	442	111	47	1501	0.295	443	239	0.6	0.5	3.744	A
3 - IRR (NE)	209	52	114	1584	0.132	209	375	0.2	0.2	2.880	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	101	25	139	1439	0.070	101	132	0.1	0.1	2.959	A
2 - IRR (W)	370	93	39	1505	0.246	371	200	0.5	0.4	3.494	A
3 - IRR (NE)	175	44	96	1595	0.109	175	314	0.2	0.1	2.789	A

Do Something - 2026 DS, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Something	✓	✓	D7,D8,D9,D10,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 DS	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	181	100.000
2 - IRR (W)		ONE HOUR	✓	344	100.000
3 - IRR (NE)		ONE HOUR	✓	346	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	136	45
	2 - IRR (W)	58	0	286
	3 - IRR (NE)	69	276	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.15	3.45	0.2	A	166	249
2 - IRR (W)	0.25	3.53	0.4	A	316	473
3 - IRR (NE)	0.24	3.21	0.3	A	317	476

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	136	34	208	1401	0.097	136	95	0.0	0.1	3.131	A
2 - IRR (W)	259	65	35	1508	0.172	258	309	0.0	0.2	3.168	A
3 - IRR (NE)	260	65	44	1626	0.160	260	249	0.0	0.2	2.898	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	163	41	249	1378	0.118	163	114	0.1	0.1	3.258	A
2 - IRR (W)	309	77	41	1504	0.206	309	370	0.2	0.3	3.313	A
3 - IRR (NE)	311	78	52	1621	0.192	311	298	0.2	0.3	3.023	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	199	50	305	1347	0.148	199	140	0.1	0.2	3.450	A
2 - IRR (W)	379	95	51	1499	0.253	378	453	0.3	0.4	3.534	A
3 - IRR (NE)	381	95	64	1614	0.236	381	365	0.3	0.3	3.211	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	199	50	305	1347	0.148	199	140	0.2	0.2	3.450	A
2 - IRR (W)	379	95	51	1499	0.253	379	454	0.4	0.4	3.534	A
3 - IRR (NE)	381	95	64	1614	0.236	381	366	0.3	0.3	3.211	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	163	41	249	1378	0.118	163	114	0.2	0.1	3.262	A
2 - IRR (W)	309	77	41	1504	0.206	310	371	0.4	0.3	3.315	A
3 - IRR (NE)	311	78	52	1621	0.192	311	299	0.3	0.3	3.027	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	136	34	209	1400	0.097	136	96	0.1	0.1	3.133	A
2 - IRR (W)	259	65	35	1508	0.172	259	310	0.3	0.2	3.171	A
3 - IRR (NE)	260	65	44	1625	0.160	261	250	0.3	0.2	2.903	A

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Do Something - 2031 DS, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Something	✓	✓	D7,D8,D9,D10,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 DS	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	142	100.000
2 - IRR (W)		ONE HOUR	✓	524	100.000
3 - IRR (NE)		ONE HOUR	✓	245	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	1	87	54
	2 - IRR (W)	134	0	390
	3 - IRR (NE)	51	194	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.11	3.19	0.1	A	130	195
2 - IRR (W)	0.39	4.32	0.7	A	481	721
3 - IRR (NE)	0.17	3.06	0.2	A	225	337

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	107	27	146	1435	0.074	107	140	0.0	0.1	2.980	A
2 - IRR (W)	394	99	41	1504	0.262	393	211	0.0	0.4	3.560	A
3 - IRR (NE)	184	46	101	1592	0.116	184	333	0.0	0.1	2.810	A

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08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	128	32	174	1419	0.090	128	167	0.1	0.1	3.065	A
2 - IRR (W)	471	118	49	1499	0.314	471	252	0.4	0.5	3.847	A
3 - IRR (NE)	220	55	121	1580	0.139	220	399	0.1	0.2	2.910	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	156	39	213	1397	0.112	156	205	0.1	0.1	3.189	A
2 - IRR (W)	577	144	61	1493	0.386	576	309	0.5	0.7	4.314	A
3 - IRR (NE)	270	67	148	1565	0.172	270	488	0.2	0.2	3.057	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	156	39	214	1397	0.112	156	205	0.1	0.1	3.190	A
2 - IRR (W)	577	144	61	1493	0.386	577	309	0.7	0.7	4.321	A
3 - IRR (NE)	270	67	149	1565	0.172	270	489	0.2	0.2	3.057	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	128	32	175	1419	0.090	128	167	0.1	0.1	3.066	A
2 - IRR (W)	471	118	49	1499	0.314	472	253	0.7	0.5	3.857	A
3 - IRR (NE)	220	55	122	1580	0.139	220	400	0.2	0.2	2.912	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	107	27	146	1435	0.075	107	140	0.1	0.1	2.984	A
2 - IRR (W)	394	99	41	1504	0.262	395	212	0.5	0.4	3.571	A
3 - IRR (NE)	184	46	102	1592	0.116	185	335	0.2	0.1	2.816	A

Do Something - 2031 DS, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Something	✓	✓	D7,D8,D9,D10,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 DS	PM	ONE HOUR	17:15	18:45	15	✓

TRL THE FUTURE OF TRANSPORT
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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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	192	100.000
2 - IRR (W)		ONE HOUR	✓	364	100.000
3 - IRR (NE)		ONE HOUR	✓	367	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	145	47
	2 - IRR (W)	61	0	303
	3 - IRR (NE)	73	293	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.16	3.52	0.2	A	176	264
2 - IRR (W)	0.27	3.61	0.4	A	334	501
3 - IRR (NE)	0.25	3.28	0.4	A	337	505

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	145	36	221	1393	0.104	144	101	0.0	0.1	3.167	A
2 - IRR (W)	274	69	36	1507	0.182	273	329	0.0	0.2	3.205	A
3 - IRR (NE)	276	69	46	1624	0.170	275	263	0.0	0.2	2.934	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	173	43	264	1369	0.126	172	120	0.1	0.2	3.308	A
2 - IRR (W)	327	82	43	1503	0.218	327	393	0.2	0.3	3.367	A
3 - IRR (NE)	330	82	55	1619	0.204	330	315	0.2	0.3	3.071	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	211	53	323	1336	0.158	211	147	0.2	0.2	3.518	A
2 - IRR (W)	401	100	53	1498	0.268	400	482	0.3	0.4	3.609	A
3 - IRR (NE)	404	101	67	1612	0.251	404	386	0.3	0.4	3.277	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	211	53	324	1336	0.158	211	148	0.2	0.2	3.519	A
2 - IRR (W)	401	100	53	1498	0.268	401	482	0.4	0.4	3.609	A
3 - IRR (NE)	404	101	67	1612	0.251	404	386	0.4	0.4	3.278	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	173	43	265	1369	0.126	173	121	0.2	0.2	3.309	A
2 - IRR (W)	327	82	43	1503	0.218	328	394	0.4	0.3	3.372	A
3 - IRR (NE)	330	82	55	1619	0.204	330	316	0.4	0.3	3.075	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	145	36	222	1393	0.104	145	101	0.2	0.1	3.171	A
2 - IRR (W)	274	69	36	1507	0.182	274	330	0.3	0.2	3.215	A
3 - IRR (NE)	276	69	46	1624	0.170	277	264	0.3	0.2	2.938	A

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Do Something - 2041 DS, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Something	✓	✓	D7,D8,D9,D10,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2041 DS	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	148	100.000
2 - IRR (W)		ONE HOUR	✓	550	100.000
3 - IRR (NE)		ONE HOUR	✓	255	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	1	91	56
	2 - IRR (W)	141	0	409
	3 - IRR (NE)	53	202	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.12	3.22	0.1	A	136	204
2 - IRR (W)	0.41	4.47	0.7	A	505	757
3 - IRR (NE)	0.18	3.09	0.2	A	234	351

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	111	28	152	1432	0.078	111	146	0.0	0.1	2.998	A
2 - IRR (W)	414	104	43	1503	0.275	412	220	0.0	0.4	3.626	A
3 - IRR (NE)	192	48	106	1589	0.121	191	349	0.0	0.2	2.831	A

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08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	133	33	181	1415	0.094	133	175	0.1	0.1	3.087	A
2 - IRR (W)	494	124	51	1498	0.330	494	263	0.4	0.5	3.940	A
3 - IRR (NE)	229	57	128	1577	0.145	229	418	0.2	0.2	2.938	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	163	41	222	1393	0.117	163	214	0.1	0.1	3.219	A
2 - IRR (W)	606	151	63	1492	0.406	605	322	0.5	0.7	4.459	A
3 - IRR (NE)	281	70	156	1560	0.180	281	511	0.2	0.2	3.094	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	163	41	222	1392	0.117	163	215	0.1	0.1	3.220	A
2 - IRR (W)	606	151	63	1492	0.406	606	323	0.7	0.7	4.466	A
3 - IRR (NE)	281	70	156	1560	0.180	281	512	0.2	0.2	3.094	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	133	33	182	1415	0.094	133	176	0.1	0.1	3.091	A
2 - IRR (W)	494	124	51	1498	0.330	495	264	0.7	0.5	3.952	A
3 - IRR (NE)	229	57	128	1577	0.145	229	419	0.2	0.2	2.941	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	111	28	152	1431	0.078	112	147	0.1	0.1	2.999	A
2 - IRR (W)	414	104	43	1503	0.275	415	221	0.5	0.4	3.639	A
3 - IRR (NE)	192	48	107	1589	0.121	192	350	0.2	0.2	2.835	A

Do Something - 2041 DS, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Something	✓	✓	D7,D8,D9,D10,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 4	Standard Roundabout		1, 2, 3	3.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Link Rd (SE)	
2	IRR (W)	
3	IRR (NE)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Link Rd (SE)	3.70	6.80	14.0	19.0	48.0	56.0	
2 - IRR (W)	3.70	7.00	15.0	18.0	48.0	59.0	
3 - IRR (NE)	3.80	7.30	19.0	13.0	48.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Link Rd (SE)	0.555	1516
2 - IRR (W)	0.553	1527
3 - IRR (NE)	0.581	1651

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2041 DS	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Link Rd (SE)		ONE HOUR	✓	201	100.000
2 - IRR (W)		ONE HOUR	✓	380	100.000
3 - IRR (NE)		ONE HOUR	✓	383	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	0	152	49
	2 - IRR (W)	64	0	316
	3 - IRR (NE)	76	306	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Link Rd (SE)	2 - IRR (W)	3 - IRR (NE)
From	1 - Link Rd (SE)	10	10	10
	2 - IRR (W)	10	10	10
	3 - IRR (NE)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Link Rd (SE)	0.17	3.58	0.2	A	184	277
2 - IRR (W)	0.28	3.67	0.4	A	349	523
3 - IRR (NE)	0.26	3.33	0.4	A	351	527

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	151	38	230	1388	0.109	151	105	0.0	0.1	3.198	A
2 - IRR (W)	286	72	38	1506	0.190	285	344	0.0	0.3	3.240	A
3 - IRR (NE)	288	72	48	1623	0.178	287	275	0.0	0.2	2.964	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	181	45	276	1363	0.133	181	126	0.1	0.2	3.348	A
2 - IRR (W)	342	85	45	1502	0.227	341	411	0.3	0.3	3.412	A
3 - IRR (NE)	344	86	57	1617	0.213	344	329	0.2	0.3	3.109	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	221	55	338	1329	0.167	221	154	0.2	0.2	3.575	A
2 - IRR (W)	418	105	55	1496	0.280	418	504	0.3	0.4	3.672	A
3 - IRR (NE)	422	105	70	1610	0.262	421	403	0.3	0.4	3.331	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	221	55	338	1328	0.167	221	154	0.2	0.2	3.576	A
2 - IRR (W)	418	105	55	1496	0.280	418	504	0.4	0.4	3.672	A
3 - IRR (NE)	422	105	70	1610	0.262	422	403	0.4	0.4	3.331	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	181	45	276	1363	0.133	181	126	0.2	0.2	3.353	A
2 - IRR (W)	342	85	45	1502	0.227	342	412	0.4	0.3	3.417	A
3 - IRR (NE)	344	86	58	1617	0.213	345	329	0.4	0.3	3.114	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Link Rd (SE)	151	38	231	1388	0.109	151	105	0.2	0.1	3.205	A
2 - IRR (W)	286	72	38	1506	0.190	286	345	0.3	0.3	3.246	A
3 - IRR (NE)	288	72	48	1623	0.178	289	276	0.3	0.2	2.967	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013

Filename: Junction 3 Oak Drive _ Inner Relief Road Roundabout DM.j9
Path: G:\2022\p220145\calcs\arcady
Report generation date: 16/08/2023 14:34:47

»Do Minimumn - 2026, AM
»Do Minimumn - 2026, PM
»Do Minimumn - 2031, AM
»Do Minimumn - 2031, PM
»Do Minimumn - 2041, AM
»Do Minimumn - 2041, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Do Minimumn - 2026										
1 - Oak Drive (E)	D1	0.2	2.69	0.13	A	D2	0.3	3.00	0.22	A
2 - IRR (S)		0.4	3.11	0.25	A		0.2	2.85	0.18	A
3 - School Link Rd (W)		0.1	2.37	0.07	A		0.1	2.23	0.06	A
Do Minimumn - 2031										
1 - Oak Drive (E)	D3	0.2	2.71	0.13	A	D4	0.3	3.05	0.23	A
2 - IRR (S)		0.4	3.18	0.26	A		0.3	2.89	0.19	A
3 - School Link Rd (W)		0.1	2.40	0.08	A		0.1	2.25	0.06	A
Do Minimumn - 2041										
1 - Oak Drive (E)	D5	0.2	2.74	0.14	A	D6	0.3	3.09	0.24	A
2 - IRR (S)		0.4	3.24	0.28	A		0.3	2.93	0.19	A
3 - School Link Rd (W)		0.1	2.42	0.08	A		0.1	2.26	0.07	A

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

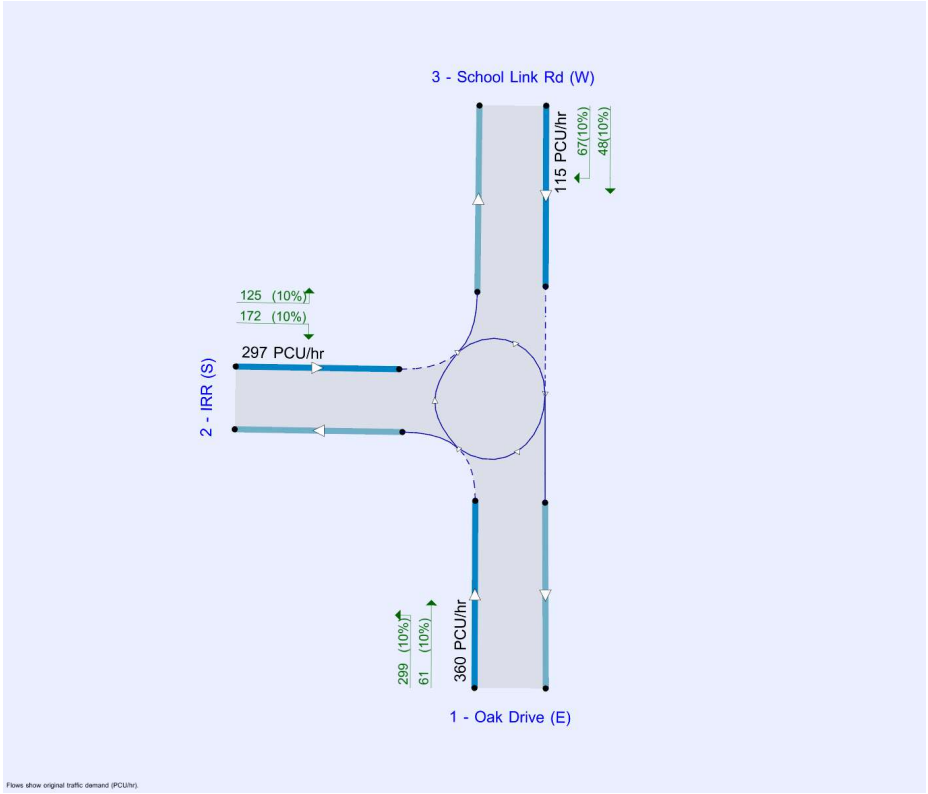
File summary

File Description

Title	Blessington Inner Relief Road
Location	Blessington, Wicklow
Site number	
Date	16/05/2023
Version	
Status	Planning
Identifier	
Client	Cairn
Jobnumber	220145
Enumerator	HEADOFFICE\GarveyD
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.

Generated on 16/08/2023 14:34:56 using Junctions 9 (9.5.2.1013)

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026	PM	ONE HOUR	17:15	18:45	15	✓
D3	2031	AM	ONE HOUR	08:00	09:30	15	✓
D4	2031	PM	ONE HOUR	17:15	18:45	15	✓
D5	2041	AM	ONE HOUR	08:00	09:30	15	✓
D6	2041	PM	ONE HOUR	17:15	18:45	15	✓

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Minimumn	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Do Minimumn - 2026, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 5	Standard Roundabout		1, 2, 3	2.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Oak Drive (E)	
2	IRR (S)	
3	School Link Rd (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Oak Drive (E)	4.09	8.13	16.0	7.9	48.6	38.0	
2 - IRR (S)	3.74	7.62	17.8	17.9	48.6	45.0	
3 - School Link Rd (W)	4.29	7.89	19.6	30.8	48.6	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Oak Drive (E)	0.588	1720
2 - IRR (S)	0.602	1720
3 - School Link Rd (W)	0.676	2007

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	AM	ONE HOUR	08:00	09:30	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

Generated on 16/08/2023 14:34:56 using Junctions 9 (9.5.2.1013)

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Oak Drive (E)		ONE HOUR	✓	195	100.000
2 - IRR (S)		ONE HOUR	✓	382	100.000
3 - School Link Rd (W)		ONE HOUR	✓	116	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	0	153	42
	2 - IRR (S)	284	0	98
	3 - School Link Rd (W)	67	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	10	10	10
	2 - IRR (S)	10	10	10
	3 - School Link Rd (W)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Oak Drive (E)	0.13	2.69	0.2	A	179	268
2 - IRR (S)	0.25	3.11	0.4	A	351	526
3 - School Link Rd (W)	0.07	2.37	0.1	A	106	160

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	147	37	37	1698	0.086	146	263	0.0	0.1	2.552	A
2 - IRR (S)	288	72	32	1701	0.169	287	152	0.0	0.2	2.798	A
3 - School Link Rd (W)	87	22	213	1863	0.047	87	105	0.0	0.1	2.229	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	175	44	44	1694	0.104	175	315	0.1	0.1	2.607	A
2 - IRR (S)	343	86	38	1698	0.202	343	182	0.2	0.3	2.923	A
3 - School Link Rd (W)	104	26	255	1835	0.057	104	126	0.1	0.1	2.288	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	215	54	54	1688	0.127	215	386	0.1	0.2	2.687	A
2 - IRR (S)	421	105	46	1692	0.249	420	222	0.3	0.4	3.112	A
3 - School Link Rd (W)	128	32	312	1796	0.071	128	154	0.1	0.1	2.373	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	215	54	54	1688	0.127	215	386	0.2	0.2	2.687	A
2 - IRR (S)	421	105	46	1692	0.249	421	222	0.4	0.4	3.112	A
3 - School Link Rd (W)	128	32	313	1796	0.071	128	154	0.1	0.1	2.373	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	175	44	44	1694	0.104	175	316	0.2	0.1	2.608	A
2 - IRR (S)	343	86	38	1698	0.202	344	182	0.4	0.3	2.925	A
3 - School Link Rd (W)	104	26	256	1834	0.057	104	126	0.1	0.1	2.288	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	147	37	37	1698	0.086	147	264	0.1	0.1	2.552	A
2 - IRR (S)	288	72	32	1701	0.169	288	152	0.3	0.2	2.803	A
3 - School Link Rd (W)	87	22	214	1862	0.047	87	105	0.1	0.1	2.230	A

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Do Minimumn - 2026, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 5	Standard Roundabout		1, 2, 3	2.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Oak Drive (E)		ONE HOUR	✓	329	100.000
2 - IRR (S)		ONE HOUR	✓	268	100.000
3 - School Link Rd (W)		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	0	272	57
	2 - IRR (S)	157	0	111
	3 - School Link Rd (W)	44	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	10	10	10
	2 - IRR (S)	10	10	10
	3 - School Link Rd (W)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Oak Drive (E)	0.22	3.00	0.3	A	302	453
2 - IRR (S)	0.18	2.85	0.2	A	246	369
3 - School Link Rd (W)	0.06	2.23	0.1	A	95	143

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	248	62	45	1693	0.146	247	151	0.0	0.2	2.737	A
2 - IRR (S)	202	50	43	1695	0.119	201	249	0.0	0.1	2.650	A
3 - School Link Rd (W)	78	20	118	1927	0.041	78	126	0.0	0.0	2.141	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	296	74	54	1688	0.175	296	181	0.2	0.2	2.843	A
2 - IRR (S)	241	60	51	1689	0.143	241	298	0.1	0.2	2.733	A
3 - School Link Rd (W)	93	23	141	1912	0.049	93	151	0.0	0.1	2.177	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	362	91	66	1681	0.216	362	221	0.2	0.3	3.002	A
2 - IRR (S)	295	74	63	1683	0.175	295	365	0.2	0.2	2.853	A
3 - School Link Rd (W)	115	29	173	1890	0.061	114	185	0.1	0.1	2.229	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	362	91	66	1681	0.216	362	221	0.3	0.3	3.002	A
2 - IRR (S)	295	74	63	1683	0.175	295	366	0.2	0.2	2.853	A
3 - School Link Rd (W)	115	29	173	1890	0.061	115	185	0.1	0.1	2.229	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	296	74	54	1688	0.175	296	181	0.3	0.2	2.845	A
2 - IRR (S)	241	60	51	1689	0.143	241	299	0.2	0.2	2.736	A
3 - School Link Rd (W)	93	23	141	1912	0.049	94	151	0.1	0.1	2.179	A

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18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	248	62	45	1693	0.146	248	151	0.2	0.2	2.740	A
2 - IRR (S)	202	50	43	1694	0.119	202	250	0.2	0.1	2.654	A
3 - School Link Rd (W)	78	20	118	1927	0.041	78	127	0.1	0.0	2.141	A

Do Minimumn - 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 5	Standard Roundabout		1, 2, 3	2.92	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Oak Drive (E)		ONE HOUR	✓	206	100.000
2 - IRR (S)		ONE HOUR	✓	406	100.000
3 - School Link Rd (W)		ONE HOUR	✓	123	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	0	162	44
	2 - IRR (S)	301	0	105
	3 - School Link Rd (W)	70	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	10	10	10
	2 - IRR (S)	10	10	10
	3 - School Link Rd (W)	10	10	10

Generated on 16/08/2023 14:34:56 using Junctions 9 (9.5.2.1013)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Oak Drive (E)	0.13	2.71	0.2	A	189	284
2 - IRR (S)	0.26	3.18	0.4	A	373	559
3 - School Link Rd (W)	0.08	2.40	0.1	A	113	169

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	155	39	40	1696	0.091	155	278	0.0	0.1	2.569	A
2 - IRR (S)	306	76	33	1700	0.180	305	161	0.0	0.2	2.836	A
3 - School Link Rd (W)	93	23	226	1854	0.050	92	112	0.0	0.1	2.247	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	185	46	48	1692	0.109	185	333	0.1	0.1	2.628	A
2 - IRR (S)	365	91	40	1696	0.215	365	193	0.2	0.3	2.973	A
3 - School Link Rd (W)	111	28	270	1824	0.061	111	134	0.1	0.1	2.310	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	227	57	58	1685	0.135	227	408	0.1	0.2	2.714	A
2 - IRR (S)	447	112	48	1691	0.264	447	237	0.3	0.4	3.182	A
3 - School Link Rd (W)	135	34	331	1783	0.076	135	164	0.1	0.1	2.402	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	227	57	58	1685	0.135	227	408	0.2	0.2	2.714	A
2 - IRR (S)	447	112	48	1691	0.264	447	237	0.4	0.4	3.182	A
3 - School Link Rd (W)	135	34	331	1783	0.076	135	164	0.1	0.1	2.402	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	185	46	48	1692	0.109	185	334	0.2	0.1	2.628	A
2 - IRR (S)	365	91	40	1696	0.215	365	193	0.4	0.3	2.975	A
3 - School Link Rd (W)	111	28	271	1824	0.061	111	134	0.1	0.1	2.312	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	155	39	40	1696	0.091	155	280	0.1	0.1	2.569	A
2 - IRR (S)	306	76	33	1700	0.180	306	162	0.3	0.2	2.841	A
3 - School Link Rd (W)	93	23	227	1854	0.050	93	112	0.1	0.1	2.249	A

Do Minimumn - 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 5	Standard Roundabout		1, 2, 3	2.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Oak Drive (E)		ONE HOUR	✓	346	100.000
2 - IRR (S)		ONE HOUR	✓	284	100.000
3 - School Link Rd (W)		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	0	287	59
	2 - IRR (S)	165	0	119
	3 - School Link Rd (W)	46	64	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	10	10	10
	2 - IRR (S)	10	10	10
	3 - School Link Rd (W)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Oak Drive (E)	0.23	3.05	0.3	A	317	476
2 - IRR (S)	0.19	2.89	0.3	A	261	391
3 - School Link Rd (W)	0.06	2.25	0.1	A	101	151

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	260	65	48	1691	0.154	260	158	0.0	0.2	2.764	A
2 - IRR (S)	214	53	44	1694	0.126	213	263	0.0	0.2	2.673	A
3 - School Link Rd (W)	83	21	124	1923	0.043	83	134	0.0	0.0	2.151	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	311	78	58	1686	0.185	311	190	0.2	0.2	2.879	A
2 - IRR (S)	255	64	53	1688	0.151	255	315	0.2	0.2	2.762	A
3 - School Link Rd (W)	99	25	148	1907	0.052	99	160	0.0	0.1	2.189	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	381	95	70	1678	0.227	381	232	0.2	0.3	3.052	A
2 - IRR (S)	313	78	65	1681	0.186	312	386	0.2	0.3	2.892	A
3 - School Link Rd (W)	121	30	182	1884	0.064	121	196	0.1	0.1	2.245	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	381	95	70	1678	0.227	381	232	0.3	0.3	3.052	A
2 - IRR (S)	313	78	65	1681	0.186	313	386	0.3	0.3	2.893	A
3 - School Link Rd (W)	121	30	182	1884	0.064	121	196	0.1	0.1	2.245	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	311	78	58	1686	0.185	311	190	0.3	0.2	2.883	A
2 - IRR (S)	255	64	53	1688	0.151	256	316	0.3	0.2	2.763	A
3 - School Link Rd (W)	99	25	148	1907	0.052	99	160	0.1	0.1	2.190	A

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18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	260	65	48	1691	0.154	261	159	0.2	0.2	2.767	A
2 - IRR (S)	214	53	44	1694	0.126	214	264	0.2	0.2	2.678	A
3 - School Link Rd (W)	83	21	124	1923	0.043	83	134	0.1	0.0	2.151	A

Do Minimumn - 2041, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 5	Standard Roundabout		1, 2, 3	2.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2041	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Oak Drive (E)		ONE HOUR	✓	215	100.000
2 - IRR (S)		ONE HOUR	✓	425	100.000
3 - School Link Rd (W)		ONE HOUR	✓	128	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	0	169	46
	2 - IRR (S)	314	0	111
	3 - School Link Rd (W)	73	55	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	10	10	10
	2 - IRR (S)	10	10	10
	3 - School Link Rd (W)	10	10	10

Generated on 16/08/2023 14:34:56 using Junctions 9 (9.5.2.1013)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Oak Drive (E)	0.14	2.74	0.2	A	197	296
2 - IRR (S)	0.28	3.24	0.4	A	390	585
3 - School Link Rd (W)	0.08	2.42	0.1	A	117	176

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	162	40	41	1695	0.095	161	290	0.0	0.1	2.581	A
2 - IRR (S)	320	80	35	1699	0.188	319	168	0.0	0.3	2.867	A
3 - School Link Rd (W)	96	24	236	1848	0.052	96	118	0.0	0.1	2.260	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	193	48	49	1691	0.114	193	348	0.1	0.1	2.644	A
2 - IRR (S)	382	96	41	1695	0.225	382	201	0.3	0.3	3.014	A
3 - School Link Rd (W)	115	29	282	1816	0.063	115	141	0.1	0.1	2.327	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	237	59	61	1684	0.141	237	426	0.1	0.2	2.735	A
2 - IRR (S)	468	117	51	1690	0.277	468	246	0.3	0.4	3.240	A
3 - School Link Rd (W)	141	35	345	1774	0.079	141	173	0.1	0.1	2.425	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	237	59	61	1684	0.141	237	426	0.2	0.2	2.735	A
2 - IRR (S)	468	117	51	1690	0.277	468	247	0.4	0.4	3.240	A
3 - School Link Rd (W)	141	35	346	1773	0.079	141	173	0.1	0.1	2.425	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	193	48	49	1690	0.114	193	348	0.2	0.1	2.644	A
2 - IRR (S)	382	96	41	1695	0.225	382	202	0.4	0.3	3.016	A
3 - School Link Rd (W)	115	29	283	1816	0.063	115	141	0.1	0.1	2.327	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	162	40	41	1695	0.095	162	292	0.1	0.1	2.584	A
2 - IRR (S)	320	80	35	1699	0.188	320	169	0.3	0.3	2.873	A
3 - School Link Rd (W)	96	24	237	1847	0.052	96	118	0.1	0.1	2.261	A

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Generated on 16/08/2023 14:34:56 using Junctions 9 (9.5.2.1013)

Do Minimumn - 2041, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 5	Standard Roundabout		1, 2, 3	2.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2041	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Oak Drive (E)		ONE HOUR	✓	360	100.000
2 - IRR (S)		ONE HOUR	✓	297	100.000
3 - School Link Rd (W)		ONE HOUR	✓	115	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	0	299	61
	2 - IRR (S)	172	0	125
	3 - School Link Rd (W)	48	67	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Oak Drive (E)	2 - IRR (S)	3 - School Link Rd (W)
From	1 - Oak Drive (E)	10	10	10
	2 - IRR (S)	10	10	10
	3 - School Link Rd (W)	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Oak Drive (E)	0.24	3.09	0.3	A	330	496
2 - IRR (S)	0.19	2.93	0.3	A	273	409
3 - School Link Rd (W)	0.07	2.26	0.1	A	106	158

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	271	68	50	1690	0.160	270	165	0.0	0.2	2.788	A
2 - IRR (S)	224	56	46	1693	0.132	223	275	0.0	0.2	2.692	A
3 - School Link Rd (W)	87	22	129	1920	0.045	86	140	0.0	0.1	2.159	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	324	81	60	1684	0.192	323	198	0.2	0.3	2.909	A
2 - IRR (S)	267	67	55	1687	0.158	267	329	0.2	0.2	2.787	A
3 - School Link Rd (W)	103	26	155	1903	0.054	103	167	0.1	0.1	2.200	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	396	99	74	1676	0.236	396	242	0.3	0.3	3.093	A
2 - IRR (S)	327	82	67	1680	0.195	327	403	0.2	0.3	2.926	A
3 - School Link Rd (W)	127	32	189	1879	0.067	127	205	0.1	0.1	2.259	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	396	99	74	1676	0.236	396	242	0.3	0.3	3.093	A
2 - IRR (S)	327	82	67	1680	0.195	327	403	0.3	0.3	2.926	A
3 - School Link Rd (W)	127	32	189	1879	0.067	127	205	0.1	0.1	2.259	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	324	81	60	1684	0.192	324	198	0.3	0.3	2.913	A
2 - IRR (S)	267	67	55	1687	0.158	267	329	0.3	0.2	2.788	A
3 - School Link Rd (W)	103	26	155	1903	0.054	103	167	0.1	0.1	2.202	A

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18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive (E)	271	68	50	1690	0.160	271	166	0.3	0.2	2.793	A
2 - IRR (S)	224	56	46	1693	0.132	224	276	0.2	0.2	2.697	A
3 - School Link Rd (W)	87	22	130	1920	0.045	87	140	0.1	0.1	2.160	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Junction 3 Oak Drive _ Inner Relief Road Roundabout.j9
Path: G:\2022\p220145\calcs\arcady
Report generation date: 03/08/2023 16:02:05

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 DS										
1 - Oak Drive	D1	0.1	3.04	0.11	A	D2	0.3	3.47	0.19	A
2 - Inner Relief Road (S)		0.5	3.29	0.31	A		0.3	3.05	0.24	A
3 - School Link Road		0.2	3.56	0.18	A		0.2	3.14	0.13	A
4 - Inner Relief Road Extension (N)		0.1	2.91	0.06	A		0.2	2.92	0.12	A
2031 DS										
1 - Oak Drive	D3	0.2	3.08	0.12	A	D4	0.3	3.54	0.21	A
2 - Inner Relief Road (S)		0.5	3.39	0.33	A		0.4	3.11	0.25	A
3 - School Link Road		0.3	3.64	0.19	A		0.2	3.18	0.14	A
4 - Inner Relief Road Extension (N)		0.1	2.94	0.06	A		0.2	2.95	0.13	A
2041 DS										
1 - Oak Drive	D5	0.2	3.10	0.13	A	D6	0.3	3.60	0.22	A
2 - Inner Relief Road (S)		0.6	3.46	0.34	A		0.4	3.16	0.26	A
3 - School Link Road		0.3	3.69	0.19	A		0.2	3.21	0.14	A
4 - Inner Relief Road Extension (N)		0.1	2.97	0.07	A		0.2	2.98	0.13	A

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

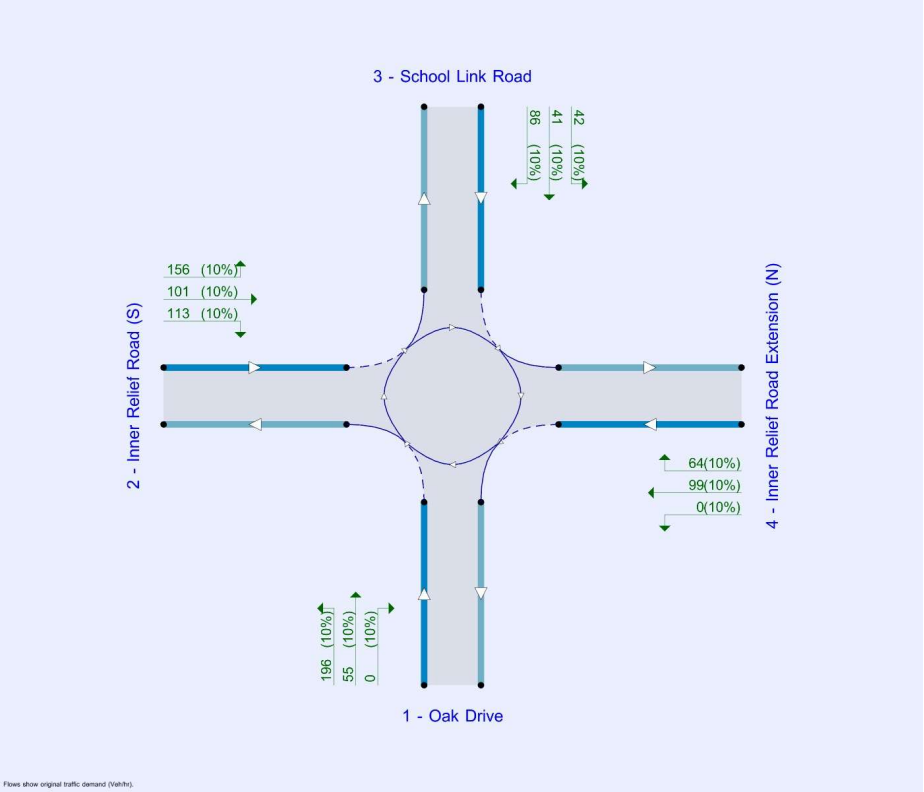
File summary

File Description

Title	Blessington Demesne
Location	Blessington, Co. Wicklow
Site number	
Date	03/08/2023
Version	
Status	Planning
Identifier	
Client	Cairn
Jobnumber	220145
Enumerator	HEADOFFICE\kellysh
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DS	AM	ONE HOUR	08:00	09:30	15
D2	2026 DS	PM	ONE HOUR	17:15	18:45	15
D3	2031 DS	AM	ONE HOUR	08:00	09:30	15
D4	2031 DS	PM	ONE HOUR	17:15	18:45	15
D5	2041 DS	AM	ONE HOUR	08:00	09:30	15
D6	2041 DS	PM	ONE HOUR	17:15	18:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Generated on 03/08/2023 16:02:22 using Junctions 9 (9.5.2.1013)

2026 DS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Oak Drive	
2	Inner Relief Road (S)	
3	School Link Road	
4	Inner Relief Road Extension (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Oak Drive	3.73	6.22	22.8	16.8	49.9	47.0	
2 - Inner Relief Road (S)	4.39	6.21	25.4	31.5	49.9	33.0	
3 - School Link Road	3.67	6.38	22.4	22.6	49.9	52.0	
4 - Inner Relief Road Extension (N)	3.50	6.90	28.5	18.5	49.9	46.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Oak Drive	0.565	1574
2 - Inner Relief Road (S)	0.629	1792
3 - School Link Road	0.567	1583
4 - Inner Relief Road Extension (N)	0.592	1699

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DS	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Oak Drive		✓	138	100.000
2 - Inner Relief Road (S)		✓	444	100.000
3 - School Link Road		✓	202	100.000
4 - Inner Relief Road Extension (N)		✓	75	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	0	99	39	0
	2 - Inner Relief Road (S)	204	0	112	128
	3 - School Link Road	62	79	0	61
	4 - Inner Relief Road Extension (N)	0	47	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	10	10	10	10
	2 - Inner Relief Road (S)	10	10	10	10
	3 - School Link Road	10	10	10	10
	4 - Inner Relief Road Extension (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Oak Drive	0.11	3.04	0.1	A
2 - Inner Relief Road (S)	0.31	3.29	0.5	A
3 - School Link Road	0.18	3.56	0.2	A
4 - Inner Relief Road Extension (N)	0.06	2.91	0.1	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	114	127	1502	0.076	114	0.1	2.853	A
2 - Inner Relief Road (S)	368	55	1757	0.209	367	0.3	2.844	A
3 - School Link Road	167	274	1428	0.117	167	0.1	3.137	A
4 - Inner Relief Road Extension (N)	62	285	1531	0.041	62	0.0	2.696	A

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08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	136	152	1488	0.092	136	0.1	2.929	A
2 - Inner Relief Road (S)	439	66	1751	0.251	439	0.4	3.018	A
3 - School Link Road	200	328	1398	0.143	200	0.2	3.305	A
4 - Inner Relief Road Extension (N)	74	341	1497	0.050	74	0.1	2.781	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	167	186	1468	0.114	167	0.1	3.042	A
2 - Inner Relief Road (S)	538	81	1741	0.309	537	0.5	3.287	A
3 - School Link Road	245	402	1356	0.180	244	0.2	3.562	A
4 - Inner Relief Road Extension (N)	91	417	1452	0.063	91	0.1	2.908	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	167	187	1468	0.114	167	0.1	3.042	A
2 - Inner Relief Road (S)	538	81	1741	0.309	538	0.5	3.289	A
3 - School Link Road	245	402	1356	0.180	245	0.2	3.563	A
4 - Inner Relief Road Extension (N)	91	418	1452	0.063	91	0.1	2.908	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	136	152	1488	0.092	137	0.1	2.930	A
2 - Inner Relief Road (S)	439	66	1750	0.251	440	0.4	3.023	A
3 - School Link Road	200	329	1397	0.143	200	0.2	3.310	A
4 - Inner Relief Road Extension (N)	74	342	1497	0.050	74	0.1	2.785	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	114	128	1502	0.076	114	0.1	2.856	A
2 - Inner Relief Road (S)	368	56	1757	0.209	368	0.3	2.852	A
3 - School Link Road	167	275	1428	0.117	167	0.1	3.144	A
4 - Inner Relief Road Extension (N)	62	286	1530	0.041	62	0.0	2.699	A

2026 DS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026 DS	PM	ONE HOUR	17:15	18:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Oak Drive		✓	227	100.000
2 - Inner Relief Road (S)		✓	337	100.000
3 - School Link Road		✓	157	100.000
4 - Inner Relief Road Extension (N)		✓	154	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	0	176	51	0
	2 - Inner Relief Road (S)	102	0	142	93
	3 - School Link Road	38	78	0	41
	4 - Inner Relief Road Extension (N)	0	92	62	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	10	10	10	10
	2 - Inner Relief Road (S)	10	10	10	10
	3 - School Link Road	10	10	10	10
	4 - Inner Relief Road Extension (N)	10	10	10	10

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Oak Drive	0.19	3.47	0.3	A
2 - Inner Relief Road (S)	0.24	3.05	0.3	A
3 - School Link Road	0.13	3.14	0.2	A
4 - Inner Relief Road Extension (N)	0.12	2.92	0.2	A

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	188	192	1466	0.128	187	0.2	3.096	A
2 - Inner Relief Road (S)	279	93	1734	0.161	278	0.2	2.720	A
3 - School Link Road	130	161	1492	0.087	130	0.1	2.906	A
4 - Inner Relief Road Extension (N)	128	180	1593	0.080	127	0.1	2.702	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	224	229	1444	0.155	224	0.2	3.245	A
2 - Inner Relief Road (S)	333	112	1722	0.194	333	0.3	2.850	A
3 - School Link Road	155	193	1474	0.105	155	0.1	3.001	A
4 - Inner Relief Road Extension (N)	152	215	1572	0.097	152	0.1	2.789	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	275	281	1415	0.194	275	0.3	3.472	A
2 - Inner Relief Road (S)	408	137	1706	0.239	408	0.3	3.050	A
3 - School Link Road	190	236	1450	0.131	190	0.2	3.143	A
4 - Inner Relief Road Extension (N)	187	264	1543	0.121	186	0.2	2.918	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	275	281	1415	0.194	275	0.3	3.472	A
2 - Inner Relief Road (S)	408	137	1706	0.239	408	0.3	3.050	A
3 - School Link Road	190	236	1450	0.131	190	0.2	3.143	A
4 - Inner Relief Road Extension (N)	187	264	1543	0.121	187	0.2	2.918	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	224	230	1444	0.155	225	0.2	3.250	A
2 - Inner Relief Road (S)	333	112	1722	0.194	334	0.3	2.852	A
3 - School Link Road	155	193	1474	0.105	155	0.1	3.002	A
4 - Inner Relief Road Extension (N)	152	216	1571	0.097	152	0.1	2.790	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	188	192	1465	0.128	188	0.2	3.100	A
2 - Inner Relief Road (S)	279	94	1733	0.161	279	0.2	2.723	A
3 - School Link Road	130	162	1492	0.087	130	0.1	2.907	A
4 - Inner Relief Road Extension (N)	128	181	1592	0.080	128	0.1	2.705	A

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2031 DS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2031 DS	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Oak Drive		✓	147	100.000
2 - Inner Relief Road (S)		✓	471	100.000
3 - School Link Road		✓	209	100.000
4 - Inner Relief Road Extension (N)		✓	76	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	0	106	41	0
	2 - Inner Relief Road (S)	217	0	119	135
	3 - School Link Road	65	83	0	61
	4 - Inner Relief Road Extension (N)	0	48	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	10	10	10	10
	2 - Inner Relief Road (S)	10	10	10	10
	3 - School Link Road	10	10	10	10
	4 - Inner Relief Road Extension (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Oak Drive	0.12	3.08	0.2	A
2 - Inner Relief Road (S)	0.33	3.39	0.5	A
3 - School Link Road	0.19	3.64	0.3	A
4 - Inner Relief Road Extension (N)	0.06	2.94	0.1	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	122	131	1500	0.081	121	0.1	2.873	A
2 - Inner Relief Road (S)	390	57	1756	0.222	389	0.3	2.893	A
3 - School Link Road	173	291	1419	0.122	172	0.2	3.175	A
4 - Inner Relief Road Extension (N)	63	301	1521	0.041	63	0.0	2.715	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	145	157	1485	0.098	145	0.1	2.955	A
2 - Inner Relief Road (S)	466	68	1749	0.266	465	0.4	3.084	A
3 - School Link Road	207	348	1386	0.149	207	0.2	3.356	A
4 - Inner Relief Road Extension (N)	75	361	1486	0.051	75	0.1	2.806	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	178	192	1465	0.122	178	0.2	3.076	A
2 - Inner Relief Road (S)	570	84	1740	0.328	570	0.5	3.383	A
3 - School Link Road	253	426	1342	0.189	253	0.3	3.635	A
4 - Inner Relief Road Extension (N)	92	442	1438	0.064	92	0.1	2.942	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	178	193	1465	0.122	178	0.2	3.076	A
2 - Inner Relief Road (S)	570	84	1740	0.328	570	0.5	3.386	A
3 - School Link Road	253	426	1342	0.189	253	0.3	3.636	A
4 - Inner Relief Road Extension (N)	92	442	1438	0.064	92	0.1	2.942	A

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09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	145	157	1485	0.098	145	0.1	2.958	A
2 - Inner Relief Road (S)	466	68	1749	0.266	466	0.4	3.089	A
3 - School Link Road	207	348	1386	0.149	207	0.2	3.361	A
4 - Inner Relief Road Extension (N)	75	361	1485	0.051	75	0.1	2.807	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	122	132	1499	0.081	122	0.1	2.874	A
2 - Inner Relief Road (S)	390	57	1756	0.222	390	0.3	2.901	A
3 - School Link Road	173	292	1418	0.122	173	0.2	3.180	A
4 - Inner Relief Road Extension (N)	63	303	1520	0.041	63	0.0	2.719	A

2031 DS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2031 DS	PM	ONE HOUR	17:15	18:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Oak Drive		✓	240	100.000
2 - Inner Relief Road (S)		✓	355	100.000
3 - School Link Road		✓	164	100.000
4 - Inner Relief Road Extension (N)		✓	159	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	0	187	53	0
	2 - Inner Relief Road (S)	108	0	150	97
	3 - School Link Road	40	83	0	41
	4 - Inner Relief Road Extension (N)	0	96	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	10	10	10	10
	2 - Inner Relief Road (S)	10	10	10	10
	3 - School Link Road	10	10	10	10
	4 - Inner Relief Road Extension (N)	10	10	10	10

TRL THE FUTURE OF TRANSPORT
Generated on 03/08/2023 16:02:22 using Junctions 9 (9.5.2.1013)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Oak Drive	0.21	3.54	0.3	A
2 - Inner Relief Road (S)	0.25	3.11	0.4	A
3 - School Link Road	0.14	3.18	0.2	A
4 - Inner Relief Road Extension (N)	0.13	2.95	0.2	A

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	199	200	1461	0.136	198	0.2	3.134	A
2 - Inner Relief Road (S)	294	96	1732	0.170	293	0.2	2.751	A
3 - School Link Road	136	169	1488	0.091	135	0.1	2.928	A
4 - Inner Relief Road Extension (N)	132	191	1586	0.083	131	0.1	2.721	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	237	239	1439	0.165	237	0.2	3.295	A
2 - Inner Relief Road (S)	351	115	1720	0.204	351	0.3	2.891	A
3 - School Link Road	162	203	1469	0.110	162	0.1	3.030	A
4 - Inner Relief Road Extension (N)	157	228	1564	0.101	157	0.1	2.814	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	291	293	1408	0.206	290	0.3	3.542	A
2 - Inner Relief Road (S)	430	140	1704	0.252	430	0.4	3.107	A
3 - School Link Road	199	248	1443	0.138	198	0.2	3.181	A
4 - Inner Relief Road Extension (N)	193	280	1534	0.126	192	0.2	2.952	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	291	293	1408	0.206	291	0.3	3.542	A
2 - Inner Relief Road (S)	430	140	1704	0.252	430	0.4	3.107	A
3 - School Link Road	199	248	1443	0.138	199	0.2	3.182	A
4 - Inner Relief Road Extension (N)	193	280	1534	0.126	193	0.2	2.952	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	237	240	1438	0.165	238	0.2	3.297	A
2 - Inner Relief Road (S)	351	115	1720	0.204	351	0.3	2.895	A
3 - School Link Road	162	203	1468	0.110	162	0.1	3.031	A
4 - Inner Relief Road Extension (N)	157	229	1564	0.101	157	0.1	2.817	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	199	201	1460	0.136	199	0.2	3.141	A
2 - Inner Relief Road (S)	294	96	1732	0.170	294	0.2	2.756	A
3 - School Link Road	136	170	1487	0.091	136	0.1	2.930	A
4 - Inner Relief Road Extension (N)	132	191	1586	0.083	132	0.1	2.723	A

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2041 DS, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2041 DS	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Oak Drive		✓	153	100.000
2 - Inner Relief Road (S)		✓	491	100.000
3 - School Link Road		✓	214	100.000
4 - Inner Relief Road Extension (N)		✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	0	111	42	0
	2 - Inner Relief Road (S)	227	0	124	140
	3 - School Link Road	67	85	0	62
	4 - Inner Relief Road Extension (N)	0	50	29	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	10	10	10	10
	2 - Inner Relief Road (S)	10	10	10	10
	3 - School Link Road	10	10	10	10
	4 - Inner Relief Road Extension (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Oak Drive	0.13	3.10	0.2	A
2 - Inner Relief Road (S)	0.34	3.46	0.6	A
3 - School Link Road	0.19	3.69	0.3	A
4 - Inner Relief Road Extension (N)	0.07	2.97	0.1	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	127	135	1497	0.085	126	0.1	2.888	A
2 - Inner Relief Road (S)	407	59	1755	0.232	405	0.3	2.930	A
3 - School Link Road	177	303	1412	0.126	177	0.2	3.204	A
4 - Inner Relief Road Extension (N)	65	313	1514	0.043	65	0.0	2.733	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	151	162	1482	0.102	151	0.1	2.974	A
2 - Inner Relief Road (S)	486	70	1748	0.278	485	0.4	3.135	A
3 - School Link Road	212	363	1378	0.154	211	0.2	3.394	A
4 - Inner Relief Road Extension (N)	78	374	1477	0.053	78	0.1	2.829	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	185	198	1462	0.127	185	0.2	3.101	A
2 - Inner Relief Road (S)	595	86	1738	0.342	594	0.6	3.459	A
3 - School Link Road	259	444	1332	0.195	259	0.3	3.690	A
4 - Inner Relief Road Extension (N)	96	459	1428	0.067	96	0.1	2.972	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	185	199	1462	0.127	185	0.2	3.102	A
2 - Inner Relief Road (S)	595	86	1738	0.342	595	0.6	3.462	A
3 - School Link Road	259	444	1332	0.195	259	0.3	3.691	A
4 - Inner Relief Road Extension (N)	96	459	1427	0.067	96	0.1	2.972	A

TRL THE FUTURE OF TRANSPORT
Generated on 03/08/2023 16:02:22 using Junctions 9 (9.5.2.1013)

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	151	162	1482	0.102	151	0.1	2.978	A
2 - Inner Relief Road (S)	486	70	1748	0.278	486	0.4	3.141	A
3 - School Link Road	212	363	1378	0.154	212	0.2	3.397	A
4 - Inner Relief Road Extension (N)	78	375	1477	0.053	78	0.1	2.832	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	127	136	1497	0.085	127	0.1	2.889	A
2 - Inner Relief Road (S)	407	59	1755	0.232	407	0.3	2.937	A
3 - School Link Road	177	304	1411	0.126	177	0.2	3.212	A
4 - Inner Relief Road Extension (N)	65	314	1513	0.043	65	0.0	2.736	A

2041 DS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2041 DS	PM	ONE HOUR	17:15	18:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Oak Drive		✓	251	100.000
2 - Inner Relief Road (S)		✓	370	100.000
3 - School Link Road		✓	169	100.000
4 - Inner Relief Road Extension (N)		✓	163	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	0	196	55	0
	2 - Inner Relief Road (S)	113	0	156	101
	3 - School Link Road	41	86	0	42
	4 - Inner Relief Road Extension (N)	0	99	64	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Oak Drive	2 - Inner Relief Road (S)	3 - School Link Road	4 - Inner Relief Road Extension (N)
From	1 - Oak Drive	10	10	10	10
	2 - Inner Relief Road (S)	10	10	10	10
	3 - School Link Road	10	10	10	10
	4 - Inner Relief Road Extension (N)	10	10	10	10

Generated on 03/08/2023 16:02:22 using Junctions 9 (9.5.2.1013)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Oak Drive	0.22	3.60	0.3	A
2 - Inner Relief Road (S)	0.26	3.16	0.4	A
3 - School Link Road	0.14	3.21	0.2	A
4 - Inner Relief Road Extension (N)	0.13	2.98	0.2	A

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	208	206	1458	0.143	207	0.2	3.165	A
2 - Inner Relief Road (S)	306	98	1730	0.177	305	0.2	2.778	A
3 - School Link Road	140	177	1483	0.094	139	0.1	2.947	A
4 - Inner Relief Road Extension (N)	135	198	1582	0.085	135	0.1	2.736	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	248	246	1435	0.173	248	0.2	3.336	A
2 - Inner Relief Road (S)	366	118	1718	0.213	366	0.3	2.927	A
3 - School Link Road	167	211	1464	0.114	167	0.1	3.053	A
4 - Inner Relief Road Extension (N)	161	237	1559	0.103	161	0.1	2.832	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	304	301	1403	0.217	304	0.3	3.600	A
2 - Inner Relief Road (S)	448	144	1702	0.263	448	0.4	3.158	A
3 - School Link Road	205	259	1437	0.142	205	0.2	3.213	A
4 - Inner Relief Road Extension (N)	197	290	1527	0.129	197	0.2	2.977	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	304	302	1403	0.217	304	0.3	3.601	A
2 - Inner Relief Road (S)	448	144	1702	0.263	448	0.4	3.158	A
3 - School Link Road	205	259	1437	0.142	205	0.2	3.213	A
4 - Inner Relief Road Extension (N)	197	291	1527	0.129	197	0.2	2.977	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	248	246	1434	0.173	248	0.2	3.341	A
2 - Inner Relief Road (S)	366	118	1718	0.213	366	0.3	2.931	A
3 - School Link Road	167	212	1463	0.114	167	0.1	3.057	A
4 - Inner Relief Road Extension (N)	161	238	1559	0.103	161	0.1	2.836	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Oak Drive	208	206	1457	0.143	208	0.2	3.172	A
2 - Inner Relief Road (S)	306	99	1730	0.177	307	0.2	2.783	A
3 - School Link Road	140	177	1483	0.094	140	0.1	2.948	A
4 - Inner Relief Road Extension (N)	135	199	1581	0.085	135	0.1	2.737	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Junction 2 Proposed BIRR _ N81 Roundabout.j9
Path: G:\2022\p220145\calcs\arcady
Report generation date: 16/08/2023 14:21:04

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do-Something - 2026									
1 - Local Road	D1	0.0	5.11	0.01	A	D2	0.0	7.35	0.01	A
2 - N81 (S)		2.9	14.46	0.73	B		0.9	7.39	0.46	A
3 - BIRR (W)		0.4	7.49	0.28	A		0.2	5.47	0.17	A
4 - N81 (N)		0.6	4.50	0.35	A		3.5	12.44	0.77	B
	Do-Something - 2031									
1 - Local Road	D3	0.0	5.18	0.01	A	D4	0.0	7.72	0.01	A
2 - N81 (S)		3.7	17.37	0.78	C		1.0	7.82	0.49	A
3 - BIRR (W)		0.5	7.93	0.30	A		0.2	5.61	0.18	A
4 - N81 (N)		0.6	4.64	0.37	A		4.5	15.37	0.81	C
	Do-Something - 2041									
1 - Local Road	D5	0.0	5.25	0.01	A	D6	0.0	8.03	0.02	A
2 - N81 (S)		4.6	20.76	0.82	C		1.1	8.18	0.51	A
3 - BIRR (W)		0.5	8.32	0.32	A		0.2	5.72	0.19	A
4 - N81 (N)		0.7	4.77	0.39	A		5.7	18.68	0.85	C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

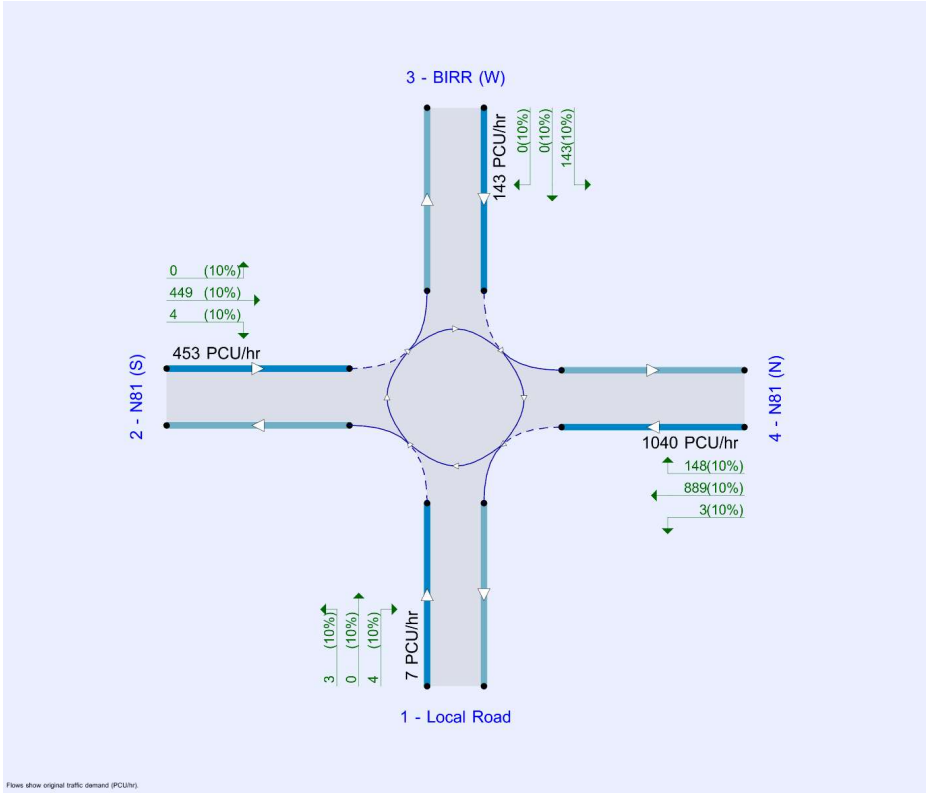
File summary

File Description

Title	Blessington Inner Road Relief
Location	Blessington, Wicklow
Site number	
Date	03/08/2023
Version	
Status	Planning
Identifier	
Client	Cairn
Jobnumber	220145
Enumerator	HEADOFFICE\kellysh
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.

Generated on 16/08/2023 14:21:14 using Junctions 9 (9.5.2.1013)

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026	PM	ONE HOUR	17:15	18:45	15	✓
D3	2031	AM	ONE HOUR	08:00	09:30	15	✓
D4	2031	PM	ONE HOUR	17:15	18:45	15	✓
D5	2041	AM	ONE HOUR	08:00	09:30	15	✓
D6	2041	PM	ONE HOUR	17:15	18:45	15	✓

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do-Something	✓	✓	D1,D2,D3,D4,D5,D6	100.000	100.000

Do-Something - 2026, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - N81 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - BIRR (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 6	Standard Roundabout		1, 2, 3, 4	10.13	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Local Road	
2	N81 (S)	
3	BIRR (W)	
4	N81 (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Local Road	3.30	4.80	17.0	6.0	36.0	77.0	
2 - N81 (S)	3.60	4.80	31.0	6.0	36.0	70.0	
3 - BIRR (W)	3.50	4.80	44.0	6.0	36.0	67.0	
4 - N81 (N)	3.35	6.10	19.0	10.0	36.0	57.6	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Local Road	0.419	979
2 - N81 (S)	0.442	1057
3 - BIRR (W)	0.450	1076
4 - N81 (N)	0.536	1355

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	AM	ONE HOUR	08:00	09:30	15	✓

Generated on 16/08/2023 14:21:14 using Junctions 9 (9.5.2.1013)

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 (%)
1 - Local Road		ONE HOUR	✓	5	100.000
2 - N81 (S)		ONE HOUR	✓	681	100.000
3 - BIRR (W)		ONE HOUR	✓	190	100.000
4 - N81 (N)		ONE HOUR	✓	431	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	0	3	0	2
	2 - N81 (S)	2	0	0	679
	3 - BIRR (W)	0	0	0	190
	4 - N81 (N)	2	361	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	10	10	10	10
	2 - N81 (S)	10	10	10	10
	3 - BIRR (W)	10	10	10	10
	4 - N81 (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Local Road	0.01	5.11	0.0	A	5	7
2 - N81 (S)	0.73	14.46	2.9	B	625	937
3 - BIRR (W)	0.28	7.49	0.4	A	174	262
4 - N81 (N)	0.35	4.50	0.6	A	395	593

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	0.94	322	844	0.004	4	3	0.0	0.0	4.712	A
2 - N81 (S)	513	128	52	1033	0.496	508	273	0.0	1.1	7.484	A
3 - BIRR (W)	143	36	510	847	0.169	142	51	0.0	0.2	5.613	A
4 - N81 (N)	324	81	1	1354	0.240	323	651	0.0	0.3	3.835	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	1	385	817	0.006	4	4	0.0	0.0	4.871	A
2 - N81 (S)	612	153	63	1029	0.595	610	327	1.1	1.6	9.409	A
3 - BIRR (W)	171	43	612	801	0.213	171	61	0.2	0.3	6.279	A
4 - N81 (N)	387	97	2	1354	0.286	387	781	0.3	0.4	4.091	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	1	472	781	0.007	5	4	0.0	0.0	5.105	A
2 - N81 (S)	750	187	77	1023	0.733	745	400	1.6	2.9	13.985	B
3 - BIRR (W)	209	52	747	740	0.283	209	75	0.3	0.4	7.441	A
4 - N81 (N)	475	119	2	1354	0.350	474	953	0.4	0.6	4.496	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	1	472	781	0.007	6	4	0.0	0.0	5.106	A
2 - N81 (S)	750	187	77	1023	0.733	749	401	2.9	2.9	14.458	B
3 - BIRR (W)	209	52	752	738	0.283	209	75	0.4	0.4	7.486	A
4 - N81 (N)	475	119	2	1354	0.350	475	959	0.6	0.6	4.501	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	1	386	817	0.006	5	4	0.0	0.0	4.875	A
2 - N81 (S)	612	153	63	1029	0.595	617	328	2.9	1.7	9.742	A
3 - BIRR (W)	171	43	619	798	0.214	171	61	0.4	0.3	6.327	A
4 - N81 (N)	387	97	2	1354	0.286	388	789	0.6	0.4	4.102	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	0.94	323	843	0.004	4	3	0.0	0.0	4.716	A
2 - N81 (S)	513	128	53	1033	0.496	515	274	1.7	1.1	7.670	A
3 - BIRR (W)	143	36	516	844	0.170	143	51	0.3	0.2	5.655	A
4 - N81 (N)	324	81	2	1354	0.240	325	658	0.4	0.3	3.847	A

Generated on 16/08/2023 14:21:14 using Junctions 9 (9.5.2.1013)

Do-Something - 2026, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - N81 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - BIRR (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 6	Standard Roundabout		1, 2, 3, 4	10.41	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Local Road		ONE HOUR	✓	6	100.000
2 - N81 (S)		ONE HOUR	✓	409	100.000
3 - BIRR (W)		ONE HOUR	✓	134	100.000
4 - N81 (N)		ONE HOUR	✓	941	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	0	2	0	4
	2 - N81 (S)	4	0	0	405
	3 - BIRR (W)	0	0	0	134
	4 - N81 (N)	2	798	141	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	10	10	10	10
	2 - N81 (S)	10	10	10	10
	3 - BIRR (W)	10	10	10	10
	4 - N81 (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Local Road	0.01	7.35	0.0	A	6	8
2 - N81 (S)	0.46	7.39	0.9	A	375	563
3 - BIRR (W)	0.17	5.47	0.2	A	123	184
4 - N81 (N)	0.77	12.44	3.5	B	863	1295

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	702	685	0.007	4	4	0.0	0.0	5.822	A
2 - N81 (S)	308	77	108	1009	0.305	306	598	0.0	0.5	5.621	A
3 - BIRR (W)	101	25	309	937	0.108	100	105	0.0	0.1	4.729	A
4 - N81 (N)	708	177	3	1354	0.523	704	406	0.0	1.2	6.050	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	842	626	0.009	5	5	0.0	0.0	6.380	A
2 - N81 (S)	368	92	130	999	0.368	367	717	0.5	0.6	6.258	A
3 - BIRR (W)	120	30	371	909	0.132	120	126	0.1	0.2	5.019	A
4 - N81 (N)	846	211	4	1353	0.625	844	487	1.2	1.8	7.729	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	7	2	1027	548	0.012	7	7	0.0	0.0	7.311	A
2 - N81 (S)	450	113	159	986	0.457	449	875	0.6	0.9	7.356	A
3 - BIRR (W)	148	37	454	872	0.169	147	154	0.2	0.2	5.463	A
4 - N81 (N)	1036	259	4	1353	0.766	1030	597	1.8	3.4	12.007	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	7	2	1034	546	0.012	7	7	0.0	0.0	7.346	A
2 - N81 (S)	450	113	160	986	0.457	450	881	0.9	0.9	7.391	A
3 - BIRR (W)	148	37	455	872	0.169	148	155	0.2	0.2	5.468	A
4 - N81 (N)	1036	259	4	1353	0.766	1036	598	3.4	3.5	12.444	B

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18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	851	622	0.009	5	5	0.0	0.0	6.418	A
2 - N81 (S)	368	92	131	999	0.368	369	725	0.9	0.6	6.298	A
3 - BIRR (W)	120	30	372	909	0.133	121	128	0.2	0.2	5.027	A
4 - N81 (N)	846	211	4	1353	0.625	852	489	3.5	1.9	8.004	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	710	681	0.007	5	5	0.0	0.0	5.849	A
2 - N81 (S)	308	77	110	1008	0.305	309	604	0.6	0.5	5.664	A
3 - BIRR (W)	101	25	312	936	0.108	101	107	0.2	0.1	4.743	A
4 - N81 (N)	708	177	3	1354	0.523	711	410	1.9	1.2	6.188	A

Do-Something - 2031, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - N81 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - BIRR (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 6	Standard Roundabout		1, 2, 3, 4	11.78	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Local Road		ONE HOUR	✓	5	100.000
2 - N81 (S)		ONE HOUR	✓	723	100.000
3 - BIRR (W)		ONE HOUR	✓	198	100.000
4 - N81 (N)		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	0	3	0	2
	2 - N81 (S)	2	0	0	721
	3 - BIRR (W)	0	0	0	198
	4 - N81 (N)	2	384	69	0

Vehicle Mix

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Heavy Vehicle Percentages

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	10	10	10	10
	2 - N81 (S)	10	10	10	10
	3 - BIRR (W)	10	10	10	10
	4 - N81 (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Local Road	0.01	5.18	0.0	A	5	7
2 - N81 (S)	0.78	17.37	3.7	C	663	995
3 - BIRR (W)	0.30	7.93	0.5	A	182	273
4 - N81 (N)	0.37	4.64	0.6	A	418	626

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	0.94	340	837	0.005	4	3	0.0	0.0	4.754	A
2 - N81 (S)	544	136	53	1033	0.527	540	290	0.0	1.2	7.947	A
3 - BIRR (W)	149	37	541	833	0.179	148	52	0.0	0.2	5.775	A
4 - N81 (N)	343	86	1	1354	0.253	341	688	0.0	0.4	3.902	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	1	407	808	0.006	4	4	0.0	0.0	4.925	A
2 - N81 (S)	650	162	64	1028	0.632	647	348	1.2	1.8	10.321	B
3 - BIRR (W)	178	44	649	784	0.227	178	62	0.2	0.3	6.527	A
4 - N81 (N)	409	102	2	1354	0.302	409	825	0.4	0.5	4.185	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	1	498	770	0.007	5	4	0.0	0.0	5.178	A
2 - N81 (S)	796	199	78	1022	0.779	789	426	1.8	3.6	16.497	C
3 - BIRR (W)	218	55	791	720	0.303	217	76	0.3	0.5	7.865	A
4 - N81 (N)	501	125	2	1354	0.370	500	1006	0.5	0.6	4.633	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	1	499	770	0.007	6	4	0.0	0.0	5.180	A
2 - N81 (S)	796	199	78	1022	0.779	796	426	3.6	3.7	17.371	C
3 - BIRR (W)	218	55	798	717	0.304	218	76	0.5	0.5	7.929	A
4 - N81 (N)	501	125	2	1354	0.370	501	1014	0.6	0.6	4.641	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	1	408	808	0.006	5	4	0.0	0.0	4.928	A
2 - N81 (S)	650	162	64	1028	0.632	657	348	3.7	1.9	10.860	B
3 - BIRR (W)	178	44	659	780	0.228	179	62	0.5	0.3	6.595	A
4 - N81 (N)	409	102	2	1354	0.302	410	836	0.6	0.5	4.196	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	4	0.94	341	836	0.005	4	3	0.0	0.0	4.761	A
2 - N81 (S)	544	136	54	1033	0.527	547	292	1.9	1.2	8.196	A
3 - BIRR (W)	149	37	549	829	0.180	149	52	0.3	0.2	5.828	A
4 - N81 (N)	343	86	2	1354	0.253	343	697	0.5	0.4	3.917	A

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Do-Something - 2031, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - N81 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - BIRR (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 6	Standard Roundabout		1, 2, 3, 4	12.40	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Local Road		ONE HOUR	✓	7	100.000
2 - N81 (S)		ONE HOUR	✓	434	100.000
3 - BIRR (W)		ONE HOUR	✓	139	100.000
4 - N81 (N)		ONE HOUR	✓	997	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	0	3	0	4
	2 - N81 (S)	4	0	0	430
	3 - BIRR (W)	0	0	0	139
	4 - N81 (N)	3	849	145	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	10	10	10	10
	2 - N81 (S)	10	10	10	10
	3 - BIRR (W)	10	10	10	10
	4 - N81 (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Local Road	0.01	7.72	0.0	A	6	10
2 - N81 (S)	0.49	7.82	1.0	A	398	597
3 - BIRR (W)	0.18	5.61	0.2	A	128	191
4 - N81 (N)	0.81	15.37	4.5	C	915	1372

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	743	667	0.008	5	5	0.0	0.0	5.979	A
2 - N81 (S)	327	82	111	1007	0.324	325	637	0.0	0.5	5.783	A
3 - BIRR (W)	105	26	328	929	0.113	104	108	0.0	0.1	4.799	A
4 - N81 (N)	751	188	3	1354	0.554	745	429	0.0	1.3	6.452	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	2	891	606	0.010	6	6	0.0	0.0	6.607	A
2 - N81 (S)	390	98	134	998	0.391	389	763	0.5	0.7	6.502	A
3 - BIRR (W)	125	31	393	899	0.139	125	130	0.1	0.2	5.111	A
4 - N81 (N)	896	224	4	1353	0.662	893	514	1.3	2.1	8.549	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	8	2	1085	524	0.015	8	8	0.0	0.0	7.671	A
2 - N81 (S)	478	119	163	985	0.485	477	930	0.7	1.0	7.773	A
3 - BIRR (W)	153	38	481	860	0.178	153	158	0.2	0.2	5.600	A
4 - N81 (N)	1098	274	4	1353	0.811	1089	629	2.1	4.4	14.495	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	8	2	1094	520	0.015	8	8	0.0	0.0	7.724	A
2 - N81 (S)	478	119	164	984	0.486	478	938	1.0	1.0	7.820	A
3 - BIRR (W)	153	38	482	859	0.178	153	160	0.2	0.2	5.607	A
4 - N81 (N)	1098	274	4	1353	0.811	1097	631	4.4	4.5	15.368	C

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18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	2	903	600	0.010	6	6	0.0	0.0	6.665	A
2 - N81 (S)	390	98	135	997	0.391	391	774	1.0	0.7	6.554	A
3 - BIRR (W)	125	31	395	898	0.139	125	132	0.2	0.2	5.122	A
4 - N81 (N)	896	224	4	1353	0.662	906	517	4.5	2.2	9.019	A

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	752	664	0.008	5	5	0.0	0.0	6.013	A
2 - N81 (S)	327	82	113	1007	0.325	327	644	0.7	0.5	5.837	A
3 - BIRR (W)	105	26	330	927	0.113	105	110	0.2	0.1	4.814	A
4 - N81 (N)	751	188	3	1354	0.554	754	432	2.2	1.4	6.640	A

Do-Something - 2041, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - N81 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - BIRR (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 6	Standard Roundabout		1, 2, 3, 4	13.66	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2041	AM	ONE HOUR	08:00	09:30	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 (%)
1 - Local Road		ONE HOUR	✓	6	100.000
2 - N81 (S)		ONE HOUR	✓	757	100.000
3 - BIRR (W)		ONE HOUR	✓	204	100.000
4 - N81 (N)		ONE HOUR	✓	476	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	0	4	0	2
	2 - N81 (S)	2	0	0	755
	3 - BIRR (W)	0	0	0	204
	4 - N81 (N)	2	403	71	0

Vehicle Mix

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Heavy Vehicle Percentages

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	10	10	10	10
	2 - N81 (S)	10	10	10	10
	3 - BIRR (W)	10	10	10	10
	4 - N81 (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Local Road	0.01	5.25	0.0	A	6	8
2 - N81 (S)	0.82	20.76	4.6	C	695	1042
3 - BIRR (W)	0.32	8.32	0.5	A	187	281
4 - N81 (N)	0.39	4.77	0.7	A	437	655

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	355	830	0.005	4	3	0.0	0.0	4.796	A
2 - N81 (S)	570	142	55	1032	0.552	565	305	0.0	1.3	8.374	A
3 - BIRR (W)	154	38	566	821	0.187	153	53	0.0	0.3	5.912	A
4 - N81 (N)	358	90	1	1354	0.265	357	717	0.0	0.4	3.957	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	426	800	0.007	5	4	0.0	0.0	4.980	A
2 - N81 (S)	681	170	66	1028	0.662	678	366	1.3	2.1	11.209	B
3 - BIRR (W)	183	46	679	771	0.238	183	64	0.3	0.3	6.735	A
4 - N81 (N)	428	107	2	1354	0.316	427	861	0.4	0.5	4.270	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	7	2	521	760	0.009	7	4	0.0	0.0	5.252	A
2 - N81 (S)	833	208	80	1021	0.816	824	447	2.1	4.4	19.238	C
3 - BIRR (W)	225	56	826	704	0.319	224	78	0.3	0.5	8.229	A
4 - N81 (N)	524	131	2	1354	0.387	523	1048	0.5	0.7	4.762	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	7	2	522	760	0.009	7	4	0.0	0.0	5.254	A
2 - N81 (S)	833	208	80	1021	0.816	833	448	4.4	4.6	20.760	C
3 - BIRR (W)	225	56	835	701	0.321	225	78	0.5	0.5	8.317	A
4 - N81 (N)	524	131	2	1354	0.387	524	1057	0.7	0.7	4.770	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	427	800	0.007	5	4	0.0	0.0	4.985	A
2 - N81 (S)	681	170	66	1028	0.662	690	367	4.6	2.2	12.044	B
3 - BIRR (W)	183	46	692	765	0.240	184	64	0.5	0.4	6.823	A
4 - N81 (N)	428	107	2	1354	0.316	429	874	0.7	0.5	4.280	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	357	829	0.005	5	3	0.0	0.0	4.801	A
2 - N81 (S)	570	142	55	1032	0.552	573	307	2.2	1.4	8.692	A
3 - BIRR (W)	154	38	575	818	0.188	154	54	0.4	0.3	5.972	A
4 - N81 (N)	358	90	2	1354	0.265	359	727	0.5	0.4	3.978	A

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Do-Something - 2041, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - N81 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - BIRR (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	IRR Junction 6	Standard Roundabout		1, 2, 3, 4	14.61	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2041	PM	ONE HOUR	17:15	18:45	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 (%)
1 - Local Road		ONE HOUR	✓	7	100.000
2 - N81 (S)		ONE HOUR	✓	453	100.000
3 - BIRR (W)		ONE HOUR	✓	143	100.000
4 - N81 (N)		ONE HOUR	✓	1040	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	0	3	0	4
	2 - N81 (S)	4	0	0	449
	3 - BIRR (W)	0	0	0	143
	4 - N81 (N)	3	889	148	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Local Road	2 - N81 (S)	3 - BIRR (W)	4 - N81 (N)
From	1 - Local Road	10	10	10	10
	2 - N81 (S)	10	10	10	10
	3 - BIRR (W)	10	10	10	10
	4 - N81 (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Local Road	0.02	8.03	0.0	A	6	10
2 - N81 (S)	0.51	8.18	1.1	A	416	624
3 - BIRR (W)	0.19	5.72	0.2	A	131	197
4 - N81 (N)	0.85	18.68	5.7	C	954	1431

Main Results for each time segment

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	775	654	0.008	5	5	0.0	0.0	6.102	A
2 - N81 (S)	341	85	114	1006	0.339	339	666	0.0	0.6	5.913	A
3 - BIRR (W)	108	27	342	922	0.117	107	111	0.0	0.1	4.854	A
4 - N81 (N)	783	196	3	1354	0.578	777	446	0.0	1.5	6.799	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	2	929	590	0.011	6	6	0.0	0.0	6.788	A
2 - N81 (S)	407	102	136	996	0.409	406	799	0.6	0.8	6.704	A
3 - BIRR (W)	129	32	410	892	0.144	128	133	0.1	0.2	5.187	A
4 - N81 (N)	935	234	4	1353	0.691	931	535	1.5	2.4	9.309	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	8	2	1130	505	0.015	8	8	0.0	0.0	7.958	A
2 - N81 (S)	499	125	166	983	0.507	497	972	0.8	1.1	8.123	A
3 - BIRR (W)	157	39	502	850	0.185	157	161	0.2	0.2	5.711	A
4 - N81 (N)	1145	286	4	1353	0.846	1133	655	2.4	5.4	17.108	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	8	2	1141	501	0.015	8	8	0.0	0.0	8.032	A
2 - N81 (S)	499	125	167	983	0.508	499	981	1.1	1.1	8.181	A
3 - BIRR (W)	157	39	503	850	0.185	157	163	0.2	0.2	5.719	A
4 - N81 (N)	1145	286	4	1353	0.846	1144	656	5.4	5.7	18.682	C

TRL THE FUTURE OF TRANSPORT
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18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	6	2	945	583	0.011	6	6	0.0	0.0	6.871	A
2 - N81 (S)	407	102	138	995	0.409	409	813	1.1	0.8	6.767	A
3 - BIRR (W)	129	32	412	891	0.144	129	135	0.2	0.2	5.201	A
4 - N81 (N)	935	234	4	1353	0.691	948	537	5.7	2.5	10.045	B

18:30 - 18:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Local Road	5	1	785	650	0.008	5	5	0.0	0.0	6.144	A
2 - N81 (S)	341	85	115	1006	0.339	342	675	0.8	0.6	5.971	A
3 - BIRR (W)	108	27	345	921	0.117	108	112	0.2	0.1	4.870	A
4 - N81 (N)	783	196	3	1354	0.578	787	450	2.5	1.5	7.035	A

Appendix 14A Surface Water Drainage Network Plan

ON ORIGINAL

0 5 10 20 30 40 50mm

NOTES:

GENERAL NOTES:

1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE WORKS REQUIREMENTS.
2. ALL DIMENSIONS IN METRES UNLESS SPECIFIED OTHERWISE.
3. ALL CO-ORDINATES ARE TO IRISH NATIONAL GRID.
4. ALL LEVELS ARE TO ORDNANCE DATUM (MALIN HEAD).
5. ALL TEMPORARY TRAFFIC MANAGEMENT SHALL COMPLY FULLY WITH THE WORKS REQUIREMENTS - REFER TO APP 1/7.
6. THE CONTRACTOR MUST LIAISE DIRECTLY WITH LOCAL AUTHORITY DEPARTMENTS AS DIRECTED IN THE WORKS REQUIREMENTS.
7. ALL VEHICULAR, PEDESTRIAN & CYCLE ROUTES WITHIN AND SURROUNDING THE WORKS EXTENTS MUST BE MAINTAINED THROUGHOUT THE WORKS IN ACCORDANCE WITH THE CONTRACTORS APPROVED TEMPORARY TRAFFIC & OPERATIONS MANAGEMENT PLAN.
8. ALL PERMANENT TRAFFIC MANAGEMENT TO BE CONCEALED/REMOVED OR INCORPORATED INTO THE CONTRACTORS TEMPORARY TRAFFIC MANAGEMENT PLAN THROUGHOUT WORKS AND TRANSFERRED ONLY WHEN AGREED WITH LOCAL AUTHORITY TRAFFIC DEPARTMENT.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE ONGOING MAINTENANCE OF TRAFFIC SIGNALS FROM THE STARTING DATE TO SUBSTANTIAL COMPLETION. THIS INCLUDES ALL TEMORARY TRAFFIC SIGNALS WHILE IN TRANSITION BETWEEN THE CURRENT TRAFFIC MANAGEMENT REGIME AND THE PROPOSED TRAFFIC MANAGEMENT REGIME.
10. ALL AGGREGATES PROPOSED FOR USE ON THIS SCHEME SHALL MEET FULLY THE REQUIREMENTS OF THE CONTRACT SPECIFICATION AND IN ADDITION THE REQUIREMENTS STATED IN STANDARD RECOMMENDATION S.R. 21:2014 GUIDANCE ON THE USE OF I.S. EN 13242:2002 +A1:2007 - AGGREGATES FOR UNBOUND AND HYDRAULICALLY BOUND MATERIALS FOR USE IN CIVIL ENGINEERING WORK AND ROAD CONSTRUCTION. FURTHER DETAIL IS PROVIDED IN ADDITIONAL CLAUSE 144AR OF THE CONTRACT SPECIFICATION.

DRAWING SPECIFIC NOTES:

1. ALL FOUL SEWERS, RISING MAINS, MANHOLES AND CONNECTIONS TO BE CONSTRUCTED IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE AND IRISH WATER WASTEWATER INFRASTRUCTURE STANDARD DETAILS, REFER TO SPECIFICATION APPENDIX 5/1 FOR FURTHER DETAILS.
2. ALL SURFACE WATER SEWERS, CONNECTIONS, MANHOLES AND GULLIES TO BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION APPENDIX 5/1.
3. ALL EXISTING GULLY LEADS AND SEWERS SHALL BE JETTED CLEAR FOR FUTURE USE WHETHER ADJUSTED, REPLACED OR RETAINED.
4. LOCATION AND INVERT LEVELS OF EXISTING MANHOLES OR OUTFALL POINTS, WHERE APPLICABLE TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF DRAINAGE WORKS.
5. ALL COVERS AND FRAMES TO BE CLASS D400 TO IS EN 124, 150MM MINIMUM FRAME DEPTH. REFER TO SPECIFICATION APPENDIX 5/1 FOR FURTHER DETAILS.
6. ALL WATERMAINS VALVES AND FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE IRISH WATER STANDARD DETAILS AND IRISH WATER CODE OF PRACTICE FOR WATER INFRASTRUCTURE. REFER TO APPENDIX 27/1 FOR FURTHER DETAILS.
7. MARKER POSTS AND PLATES ARE TO BE PROVIDED IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-W-27.
8. CONNECTION TO EXISTING WATERMAINS TO BE COORDINATED BY THE CONTRACTOR WITH IRISH WATER AND/OR THE LOCAL AUTHORITY.
9. REFER TO SPECIFICATION APPENDIX 7/2 FOR DETAILS OF REINSTATEMENT OF EXISTING ROADS.
10. EXISTING AND PROPOSED DRAINAGE NETWORKS WITHIN SCHEME EXTENTS TO BE JETTED CLEAR FOLLOWING COMPLETION OF DRAINAGE WORKS AND CCTV SURVEY TO BE UNDERTAKEN AND PROVIDED TO THE EMPLOYER'S REPRESENTATIVE.
11. DRAINAGE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH DRAINAGE LONG SECTIONS AND SCHEDULES.

KEY PLAN

PROPOSED SERVICES LEGEND

- PROPOSED EXTENT OF WORKS BOUNDARY
- S1 — PROPOSED SURFACE WATER SEWER
- PROPOSED CONCRETE SURROUND SURFACE WATER SEWER
- G — PROPOSED SURFACE WATER GULLY AND 150Ø COLLECTOR PIPE
- UNDERGROUND ATTENUATION STORAGE (STORMTECH)
- PROPOSED SURFACE WATER SWALE WITH GRATED OUTLET
- SW INSPECTION CHAMBER AND 100mmØ UPVc HOUSE DRAIN
- SURFACE WATER AJ AND 100Ø uPVC HOUSE DRAIN
- PERMEABLE PAVING (PRIVATE)
- F1 — PROPOSED FOUL WATER SEWER
- PROPOSED CONCRETE SURROUND FOUL WATER SEWER
- FOUL INSPECTION CHAMBER AND 100mmØ UPVc HOUSE DRAIN
- FOUL AJ AND 100mm Ø uPVC HOUSE DRAIN
- EXISTING WATERMAIN
- EX.MH IL 99.99 — EX SW SEWER
- EX.MH IL 99.99 — EX FOUL SEWER
- ENTRANCE DOOR
- 99.99 — PROPOSED ROAD LEVEL
- FFL 99.99 — FINISHED FLOOR LEVEL
- PROPOSED ATTENUATION POND [DARK GREEN = PERMANENT WATER LEVEL LIGHT GREEN = Q100 WATER LEVEL]

rev	date	description	by	chkd.
1	28-08-23	Stage 3 LRD	GMC	BCM
0	15-02-23	Stage 2 LRD	GMC	BCM

STATUS CODES

purpose	acceptance
P2 - COORDINATION	S - ISSUED

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project ref.

BLESSINGTON DEMESNE LRD

drawing title

PHASE 2 PROPOSED OVERALL DRAINAGE LAYOUT

client

CAIRN HOMES PROPERTIES LIMITED

designed by	author	scale	sheet size
BCM	GMC	1:1000	A1

drawing no. 220145-2-94-SW-XXX-DR-DBFL-CE-1300 — revision 1

ON ORIGINAL

0 5 10 20 30 40 50mm

NOTES:

GENERAL NOTES.

1. ALL DRAWINGS TO BE CHECKED BY CONTRACTOR ON SITE AND ENGINEER INFORMED OF DISCREPANCIES BEFORE WORK COMMENCES.
2. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF EXISTING DRAINAGE LEVELS AND LOCATION OF EXISTING SERVICES ON SITE PRIOR TO COMMENCEMENT OF WORKS ON SITE.
3. ALL DIMENSIONS AND LEVELS ARE IN METERS AND ARE RELATED TO ORDINANCE DATUM. CO-ORDINATES RELATE TO ITM.
4. ALL FOUL SEWERS, MANHOLES AND CONNECTIONS TO BE CONSTRUCTED IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE AND IRISH WATER WASTEWATER INFRASTRUCTURE STANDARD DETAILS.
5. ALL FOUL SEWER HOUSE CONNECTIONS TO BE MIN 100mmØ UPVC TO IS EN 1401 2009/2012, STIFFNESS CLASS 8KN/M2 IN ACCORDANCE WITH IRISH WATER SPECIFICATIONS.
6. ALL PUBLIC FOUL SEWERS TO BE MINIMUM 225mm DIAMETER CLASS H CONCRETE TO IS EN 1916 & IS 6 2004 OR UPVC TO IS EN 1401 2009/2012, STIFFNESS CLASS 8KN/M2, MIN. JETTING RESISTANCE OF 180 BAR IN ACCORDANCE WITH IRISH WATER SPECIFICATIONS.
7. ALL PUBLIC SURFACE WATER SEWERS TO BE MINIMUM 225 DIA. CLASS H CONCRETE TO EN1916 & IS 6 2004 IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
8. ALL SURFACE WATER CONNECTIONS TO BE MINIMUM 150mmØ UPVC TO IS EN 1401 2009/2012 IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
9. LOCATION AND INVERT LEVELS OF EXISTING MANHOLES OR OUTFALL POINTS, WHERE APPLICABLE TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF DRAINAGE WORKS.
10. ALL COVER LEVELS TO MATCH FINISHED ROAD/VERGE/FOOTPATH/CYCLETRACK LEVELS UNLESS OTHERWISE STATED.
11. CONTRACTOR TO INCLUDE FOR CCTV SURVEY OF ALL SEWERS UPON COMPLETION OF SAME.
12. ALL FOUL SEWERS TO BE AIR TESTED IN ACCORDANCE WITH IRISH WATER SPECIFICATIONS.
13. WHERE COVERS ARE LOCATED IN GRASS AREAS THEY SHALL BE SURROUNDED BY A CONCRETE PLINTH, 200MM ALL ROUND AND 150MM DEEP FORMED WITH C20/25 CONCRETE, 20MM AGGREGATE SIZE. BEDDED IN CLAUSE 808 MATERIAL.
14. CONTRACTOR TO ENSURE GULLIES ARE PROVIDED AT LOW POINTS.
15. FILTER TRENCH TO BE AS PER DBFL DRAWING 230058-1-94-SW-XXX-DR-DBFL-CE-SXXX
16. CONTRACTOR TO REVIEW DRAINAGE LONG SECTIONS FOR IL'S, EL'S ETC.

LEGEND

- EXTENT OF WORKS BOUNDARY
- 57.15 — ROAD LEVEL
- S1 — SURFACE WATER SEWER
- FILTER DRAIN
- G — SURFACE WATER GULLY AND 150Ø COLLECTOR PIPE
- SURFACE WATER BRIO MANHOLE
- SWG — TREE PIT WITH LATERAL INLET AND GULLY
- PLANTER
- BIORETENTION AREA/RAIN GARDEAN AS PER DBFL DETAIL DRG 230058-1-94-SW-XXX-DR-DBFL-CE-SXXX
- F1 — FOUL WATER SEWER
- EXISTING WATERMAIN
- EX MH CL 78.84 IL 77.37 — EXISTING SW SEWER
- EX MH CL 78.9 IL 76.88 — EXISTING FOUL SEWER

N

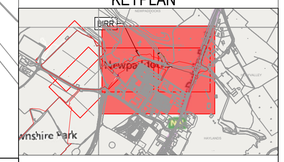
W E

S

SANTRYHILL

Pond
Quarry
Pond
JW Carnegie Quarries
Pond
A14
Woodleigh Way
Woodleigh Grove
Woodleigh Avenue
Woodleigh Close
Woodleigh Mews
Woodleigh Park
Woodleigh Rise
Fire Station
Local Government Bld
Health Centre
POINTS OF WORKS
POINTS OF WORKS

KEYPLAN



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GOVERNMENT OF IRELAND

LIST OF IRISH WATER WASTEWATER STANDARD DETAILS BROUGHT INTO THE CONTRACT

STD-WW-02	TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENT
STD-WW-03	DRAIN AND SERVICE CONNECTION PIPEWORK
STD-WW-04	TYPICAL SEWER/SERVICE PIPE CONNECTION
STD-WW-05	TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
STD-WW-06	RESTRICTIONS ON TREES/SHRUBS PLANTING ADJACENT TO SEWERS
STD-WW-07	TRENCH BACKFILL & BEDDING
STD-WW-08	CONCRETE BED, HAUNCH & SURROUND TO WASTEWATER PIPES
STD-WW-09	BLOCKWORK MANHOLE (<450mmØ)
STD-WW-10	PRE-CAST CONCRETE MANHOLE
STD-WW-11	IN-SITU CONCRETE MANHOLE
STD-WW-12	BACKDROP MANHOLES
STD-WW-13	PRIVATE SIDE INSPECTION CHAMBER
STD-WW-14	THRUST BLOCKS FOR RISING MAINS
STD-WW-15	SCOUR VALVE CHAMBER (FOUL RISING MAIN <200mmØ)
STD-WW-16	SLUICE VALVE DETAILS FOR RISING MAINS DUCTILE IRON (D.I) PIPE (<200mmØ)(SHEET 1 OF 2)
STD-WW-17	SLUICE VALVE DETAILS FOR RISING MAIN POLYETHYLENE (P.E) PIPE (<200mmØ)(SHEET 2 OF 2)
STD-WW-18	AIR VALVE CHAMBER (FOUL RISING MAIN <200mmØ)
STD-WW-19	DUCT CHAMBER
STD-WW-20	EMERGENCY OVERFLOW STRUCTURE
STD-WW-21	TYPICAL DITCH/STREAM CROSSING FOR GRAVITY MAIN (SHEET 1 OF 2)
STD-WW-22	TYPICAL DITCH/STREAM CROSSING FOR RISING MAIN (SHEET 2 OF 2)
STD-WW-23	TYPICAL BRIDGE CROSSING FOR RISING MAIN (SHEET 1 OF 2)
STD-WW-24	TYPICAL BRIDGE CROSSING FOR RISING MAIN (SHEET 2 OF 2)
STD-WW-25	SECURITY GATE & FENCING
STD-WW-26	INDICATIVE PUMPING STATION LAYOUT
STD-WW-27	FLOW METER CHAMBER (FOUL RISING MAIN <200mmØ)
STD-WW-28	INDICATIVE SUBMERSIBLE PUMPING STATION
STD-WW-28A	INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION
STD-WW-29	RISING MAIN DISCHARGE MANHOLE
STD-WW-30	KIOSK TYPE 1 PUMPING STATION & WET KIOSK (SHEET 1 OF 2)
STD-WW-31	KIOSK TYPE 2 + 3 PUMPING STATION & WET KIOSK (SHEET 2 OF 2)
STD-WW-32	HARDSTANDING AREA PUMPING STATION (PERMEABLE & IMPERMEABLE)
STD-WW-33	LAMP BOLLARD & LAMP STANDARD
STD-WW-34	VENT STACK

rev	date	description	by	chkd.
0	28-08-23	Stage 3 LRD	GMC	BCM

STATUS CODES

acceptance
S - ISSUED

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project ref.
BLESSINGTON DEMESNE LRD

drawing title
PROPOSED BIRR OVERALL SITE SERVICES LAYOUT

client
CAIRN HOMES PROPERTIES LIMITED

designed by	author	scale	sheet size
XXX	XXX	VALUE	A1

drawing no. 220145-2-94-SW-XXX-DR-DBFL-CE-1310 | revision 0

Appendix 14B Pre-Connection Feedback Letter Irish Water

Brendan Manning

Ormond House
Upper Ormond Quay
Dublin 7

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

15 October 2021

Re: CDS20005303 pre-connection enquiry - Subject to contract | Contract denied

Connection for Housing Development of 550 unit(s) at Blessington Demesne, Blessington, Wicklow

Dear Sir/Madam,

Irish Water has reviewed your pre-connection enquiry in relation to a Water & Wastewater connection at Blessington Demesne, Blessington, Wicklow (the **Premises**). Based upon the details you have provided with your pre-connection enquiry and on our desk top analysis of the capacity currently available in the Irish Water network(s) as assessed by Irish Water, we wish to advise you that your proposed connection to the Irish Water network(s) can be facilitated at this moment in time.

SERVICE	**OUTCOME OF PRE-CONNECTION ENQUIRY** **THIS IS NOT A CONNECTION OFFER. YOU MUST APPLY FOR A CONNECTION(S) TO THE IRISH WATER NETWORK(S) IF YOU WISH TO PROCEED.**
Water Connection	Feasible Subject to upgrades
Wastewater Connection	Feasible Subject to upgrades
SITE SPECIFIC COMMENTS	
Water Connection	To connect this development to Irish Water's water network significant upgrades are required, these include 50m of new 200mm ID watermain. The applicant will be responsible for the full cost of these upgrades.
Wastewater Connection	To connect this development to Irish Water's wastewater network significant upgrades are required, these include upsizing approx. 750m of existing sewer from the development to the point at which the downstream sewer is 600mm in diameter. The applicant will be responsible for the full cost of these upgrades.

The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this development shall comply with the Irish Water Connections and Developer Services Standard Details and Codes of Practice that are available on the Irish Water website. Irish Water reserves the right to supplement these requirements with Codes of Practice and these will be issued with the connection agreement.

The map included below outlines the current Irish Water infrastructure adjacent to your site:

Reproduced from the Ordnance Survey of Ireland by Permission of the Government. License No. 3-3-34

Whilst every care has been taken in its compilation Irish Water gives this information as to the position of its underground network as a general guide only on the strict understanding that it is based on the best available information provided by each Local Authority in Ireland to Irish Water. Irish Water can assume no responsibility for and give no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided and does not accept any liability whatsoever arising from any errors or omissions. This information

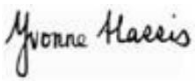
should not be relied upon in the event of excavations or any other works being carried out in the vicinity of the Irish Water underground network. The onus is on the parties carrying out excavations or any other works to ensure the exact location of the Irish Water underground network is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

General Notes:

1) The initial assessment referred to above is carried out taking into account water demand and wastewater discharge volumes and infrastructure details on the date of the assessment. **The availability of capacity may change at any date after this assessment.**
2) This feedback does not constitute a contract in whole or in part to provide a connection to any Irish Water infrastructure. All feasibility assessments are subject to the constraints of the Irish Water Capital Investment Plan.
3) The feedback provided is subject to a Connection Agreement/contract being signed at a later date.
4) A Connection Agreement will be required to commencing the connection works associated with the enquiry this can be applied for at https://www.water.ie/connections/get-connected/
5) A Connection Agreement cannot be issued until all statutory approvals are successfully in place.
6) Irish Water Connection Policy/ Charges can be found at https://www.water.ie/connections/information/connection-charges/
7) Please note the Confirmation of Feasibility does not extend to your fire flow requirements.
8) Irish Water is not responsible for the management or disposal of storm water or ground waters. You are advised to contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges
9) To access Irish Water Maps email datarequests@water.ie
10) All works to the Irish Water infrastructure, including works in the Public Space, shall have to be carried out by Irish Water.

If you have any further questions, please contact Patrick O'Neill from the design team on 01 89 25250 or email patoneil@water.ie For further information, visit **www.water.ie/connections.**

Yours sincerely,



Yvonne Harris

Head of Customer Operations

Appendix 14C Watermain Plan

ON ORIGINAL

0 5 10 20 30 40 50mm

NOTES:

GENERAL NOTES:

1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE WORKS REQUIREMENTS.
2. ALL DIMENSIONS IN METRES UNLESS SPECIFIED OTHERWISE.
3. ALL CO-ORDINATES ARE TO IRISH TRANSVERSE MERCATOR.
4. ALL LEVELS ARE TO ORDNANCE DATUM (MALIN HEAD).
5. ALL TEMPORARY TRAFFIC & OPERATIONS MANAGEMENT SHALL COMPLY FULLY WITH THE WORKS REQUIREMENTS
6. THE CONTRACTOR MUST LIAISE DIRECTLY WITH LOCAL AUTHORITY DEPARTMENTS AS DIRECTED IN THE WORKS REQUIREMENTS.
7. ALL VEHICULAR & PEDESTRIAN, CYCLE & PRIVATE ACCESS ROUTES WITHIN AND SURROUNDING THE WORKS EXTENTS MUST BE MAINTAINED THROUGHOUT THE WORKS IN ACCORDANCE WITH THE CONTRACTORS APPROVED TEMPORARY TRAFFIC & OPERATIONS MANAGEMENT PLAN.

DRAWING SPECIFIC NOTES

1. WATERMAIN INSTALLATION AND ALL WATER SUPPLY WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE FOR WATER SUPPLY AND WATER INFRASTRUCTURE STANDARD DETAILS
2. WATERMAINS (AND SERVICE CONNECTIONS) TO BE PE-100 SDR-17 AND SHALL CONFORM TO IS EN 12201 (PART 1, PART 2 & PART 3).
3. AT 90 DEG. TURNS USE 2 No. 45 DEG. BENDS.
4. COVER TO WATERMAIN TO BE 900mm.
5. CONNECTION BETWEEN EXISTING AND PROPOSED WATERMAINS TO BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER STANDARD DETAILS STD-W-03 TO STD-W-10.
6. ANCHOR BLOCKS TO BE POSITIONED AT DEAD ENDS, TEES, BENDS AND AT EACH SIDE OF HYDRANTS AND VALVES IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER STANDARD DETAIL STD-W-28 (WATER MAIN THRUST AND SUPPORT BLOCKS.
7. HYDRANT OUTLET TO BE 200mm BELOW GROUND LEVEL UNLESS REQUESTED OTHERWISE.
8. WHERE COVER TO PIPE IS LESS THAN 900mm IN GREEN AREAS AND 1200mm IN TRAFFICKED AREAS, ENCASE PIPE IN NEW 150mm CONCRETE WITH MOVEMENT JOINTS.
9. NOTE THAT THE CONTRACTOR IS RESPONSIBLE FOR CONNECTIONS INTO THE BUILDING.
10. CONNECTION TO INDIVIDUAL HOUSES IN ACCORDANCE WITH IRISH WATER STD-W-03.
11. CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE ACCORACY OF EXISTING SERVICES INFORMATION AND THE LOCATION OF EXISTING SERVICES ON SITE PRIOR TO COMMENCING INSTALLATION OF WATERMAINS.
12. INSTALLATION OF SLUICE VALVES AND HYDRANTS SHALL BE IN ACCORDANCE WITH IRISH WATER'S STANDARD DETAILS STD-W-14 TO STD-W-19.
13. MARKER POSTS AND PLATES ARE TO BE PROVIDED IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-W-27.
14. CONNECTION TO EXISTING WATERMAINS TO BE COORDINATED BY THE CONTRACTOR WITH IRISH WATER AND/OR THE LOCAL AUTHORITY.
15. CONTRACTOR TO LIASE WITH IRISH WATER AND / OR THE LOCAL AUTHORITY AS REQUIRED REGARDING CLEANSING AND STERILISATION OF WATERMAINS

WATERMAIN LEGEND:

- SITE BOUNDARY
- EXISTING WATERMAIN
- Ø180mm PE100 WATERMAIN (SPECIFICATION APPENDIX 27/1)
- Ø125mm PE100 WATERMAIN (SPECIFICATION APPENDIX 27/1)
- Ø90mm PE100 WATERMAIN (SPECIFICATION APPENDIX 27/1)
- FIRE HYDRANT (AS PER IRISH WATER STD-W-18)
- WASHOUT HYDRANT (AS PER IRISH WATER STD-W-30A)
- SLUICE VALVE (AS PER IRISH WATER STD-W-14/STD-W-15)
- SCOUR VALVE (STD-W-30)
- ON LINE AIR VALVE (AS PER IRISH WATER STD-W-20/STD-W-22)
- ON LINE BULK WATER METER (AS PER IRISH WATER STD-W-29)

LIST OF IRISH WATER STANDARD DETAILS BROUGHT INTO THE CONTRACT

STD-W-01	WATER SERVICE CONNECTION RESPONSIBILITY
STD-W-03	CUSTOMER CONNECTION AND BOUNDARY BOX (25mm OD PIPE)
STD-W-04	GENERAL PIPE CONNECTIONS (SHEET 1 OF 7)
STD-W-05	GENERAL PIPE CONNECTIONS (SHEET 2 OF 7)
STD-W-06	GENERAL PIPE CONNECTIONS (SHEET 3 OF 7)
STD-W-07	GENERAL PIPE CONNECTIONS (SHEET 4 OF 7)
STD-W-08	GENERAL PIPE CONNECTIONS (SHEET 5 OF 7)
STD-W-09	GENERAL PIPE CONNECTIONS (SHEET 6 OF 7)
STD-W-10	GENERAL PIPE CONNECTIONS (SHEET 7 OF 7)
STD-W-11	TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
STD-W-12	RESTRICTIONS ON WATER INFRASTRUCTURE WORKS ADJACENT TO TREES
STD-W-12A	RESTRICTIONS ON TREES / SHRUBS PLANTING ADJACENT TO WATERMAINS
STD-W-13	TRENCH BACKFILL & BEDDING
STD-W-14	SLUICE VALVE FOR DUCTILE IRON (D.I.) PIPE (<350MM DIA.)(SHEET 1 OF 2)
STD-W-15	SLUICE VALUE FOR POLYETHYLENE (P.E.) PIPE (<350MM DIA.)(SHEET 2 OF 2)
STD-W-18	ON-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (SHEET 3 OF 4)
STD-W-19	OFF-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (SHEET 4 OF 4)
STD-W-26	METER CHAMBER (≤300MM DIA.)
STD-W-27	MARKER POSTS / PLATES
STD-W-28	WATER MAIN THRUST & SUPPORT BLOCKS
STD-W-35	PIPE REPAIR TO EXISTING MAINS
STD-W-36	TELEMETRY AND WET KIOSK

rev	date	description	by	chkd.
1	28-08-23	Stage 3 LRD	GMC	BCM
0	15-02-23	Stage 2 LRD	GMC	BCM

STATUS CODES

purpose	acceptance
P2 - COORDINATION	S - ISSUED

DBFL Consulting Engineers
Civil, Structural & Transportation Engineering
www.dbfl.ie

DUBLIN OFFICE: Ormond House, Upper Ormond Quay, Dublin 7, D07 W704
PHONE +353 1 400 4000

CORK OFFICE: 14 South Mall, Cork, T12 CT91
PHONE +353 21 2024538

WATERFORD OFFICE: Suite 8b The Atrium, Mantana Gate, Canada Street, Waterford, X91 W028
PHONE +353 51 309 500

project ref.

BLESSINGTON DEMESNE LRD

drawing title

PHASE 2 PROPOSED WATERMAIN LAYOUT OVERALL

client

CAIRN HOMES PROPERTIES LIMITED

designed by	author	scale	sheet size
BCM	GMC	1:1000	A1

drawing no. 220145-2-93-SW-XXX-DR-DBFL-CE-1310 revision 1

Appendix 14D ESB Network Plan

ESB Networks

TITLE: 20210309-027-002_A3

COLOUR CODE:

- BLACK - 38KV & HIGHER VOLTAGE OVERHEAD LINES
- GREEN - MV(10KV/20KV) OVERHEAD LINES
- BLUE - LV (400V/230V) OVERHEAD LINES
- CYAN - 38KV & HIGHER VOLTAGE UNDERGROUND CABLE ROUTES
- RED - MV/LV (10KV/20KV/400V/230V) UNDERGROUND CABLE ROUTES

DATE: 09-Mar-2021

** SCALE: 1:2500

** SCALE WHEN PRINTED ON AN A3 PAGE
XY COORDINATES DISPLAYED IN IRISH GRID COORDINATE SYSTEM

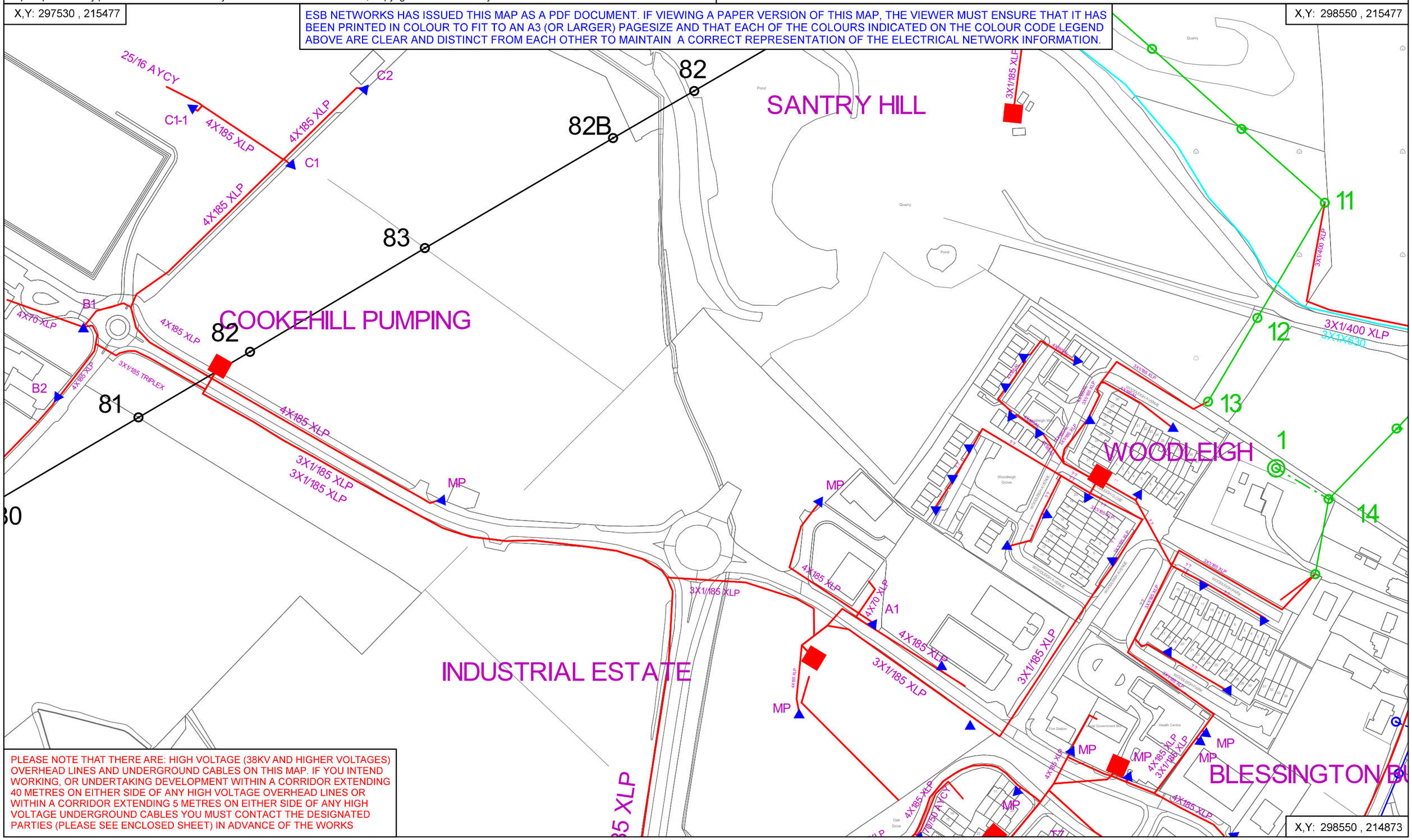
WARNING

THIS MAP INDICATES THE APPROXIMATE LOCATION OF ESB TRANSMISSION (400KV, 220KV, 110KV, 38KV) AND DISTRIBUTION (20KV, 10KV, 230V/400V) UNDERGROUND CABLES AND OVERHEAD LINES IN THE GENERAL AREA OF THE PROPOSED WORKS. ESB NETWORKS TAKES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE MAP. IT IS THE USER'S RESPONSIBILITY TO INDEPENDENTLY VERIFY THE INFORMATION AND THE LOCATION OF UNDERGROUND CABLES AND OVERHEAD LINES. LOW VOLTAGE (230V/400V) SERVICE CABLES (E.G. HOUSE SERVICES, FACTORY/SHOP SERVICES, PUBLIC LIGHTING LAMP SERVICES, ETC) ARE NOT INCLUDED BUT THEIR PRESENCE SHOULD BE ANTICIPATED. THE DEPTHS OF UNDERGROUND CABLES MUST NEVER BE ASSUMED. ADDITIONAL MORE DETAILED INFORMATION IS AVAILABLE FOR HIGH VOLTAGE TRANSMISSION UNDERGROUND CABLES (38KV, 110KV, 220KV, 400KV) FROM THE LOCAL ESB NETWORKS TRANSMISSION REPRESENTATIVE - SEE ATTACHED LIST FOR CONTACT DETAILS OR CALL 1850 372 757. NO WORK SHOULD BE CARRIED OUT IN THE VICINITY OF 38KV OR HIGHER VOLTAGE UNDERGROUND CABLES WITHOUT PRIOR CONSULTATION WITH ESB NETWORKS. BEFORE ANY MECHANICAL EXCAVATION IS UNDERTAKEN, THE ACTUAL LOCATION OF ALL UNDERGROUND ELECTRICITY CABLES MUST BE ESTABLISHED AND VERIFIED ON THE SITE USING: (A) UP-TO-DATE MAP RECORDS; (B) CABLE LOCATER EQUIPMENT OPERATED IN BOTH POWER AND RADIO MODES; (C) CAREFUL HAND DIGGING OF TRIAL HOLES USING 'SAFE DIGGING PRACTICE'. REFER ALSO TO 'HSA CODE OF PRACTICE FOR AVOIDING DANGER FROM UNDERGROUND SERVICES'. ESB TAKES NO RESPONSIBILITY FOR AND SHALL BEAR NO LIABILITY, HOWSOEVER ARISING, IN RELATION TO ANY DAMAGE, INJURY/DEATH OR LOSS OF SUPPLY AS A RESULT OF DAMAGE OR INTERFERENCE WITH ITS NETWORKS.

X,Y: 297530 , 215477

ESB NETWORKS HAS ISSUED THIS MAP AS A PDF DOCUMENT. IF VIEWING A PAPER VERSION OF THIS MAP, THE VIEWER MUST ENSURE THAT IT HAS BEEN PRINTED IN COLOUR TO FIT TO AN A3 (OR LARGER) PAGESIZE AND THAT EACH OF THE COLOURS INDICATED ON THE COLOUR CODE LEGEND ABOVE ARE CLEAR AND DISTINCT FROM EACH OTHER TO MAINTAIN A CORRECT REPRESENTATION OF THE ELECTRICAL NETWORK INFORMATION.

X,Y: 298550 , 215477



PLEASE NOTE THAT THERE ARE: HIGH VOLTAGE (38KV AND HIGHER VOLTAGES) OVERHEAD LINES AND UNDERGROUND CABLES ON THIS MAP. IF YOU INTEND WORKING, OR UNDERTAKING DEVELOPMENT WITHIN A CORRIDOR EXTENDING 40 METRES ON EITHER SIDE OF ANY HIGH VOLTAGE OVERHEAD LINES OR WITHIN A CORRIDOR EXTENDING 5 METRES ON EITHER SIDE OF ANY HIGH VOLTAGE UNDERGROUND CABLES YOU MUST CONTACT THE DESIGNATED PARTIES (PLEASE SEE ENCLOSED SHEET) IN ADVANCE OF THE WORKS

X,Y: 298550 , 214873

ESB Networks

TITLE: 20210309-027-003_A3

COLOUR CODE:

- BLACK - 38KV & HIGHER VOLTAGE OVERHEAD LINES
- GREEN - MV(10KV/20KV) OVERHEAD LINES
- BLUE - LV (400V/230V) OVERHEAD LINES
- CYAN - 38KV & HIGHER VOLTAGE UNDERGROUND CABLE ROUTES
- RED - MV/LV (10KV/20KV/400V/230V) UNDERGROUND CABLE ROUTES

DATE: 09-Mar-2021

** SCALE: 1:2500

** SCALE WHEN PRINTED ON AN A3 PAGE
XY COORDINATES DISPLAYED IN IRISH GRID COORDINATE SYSTEM

WARNING

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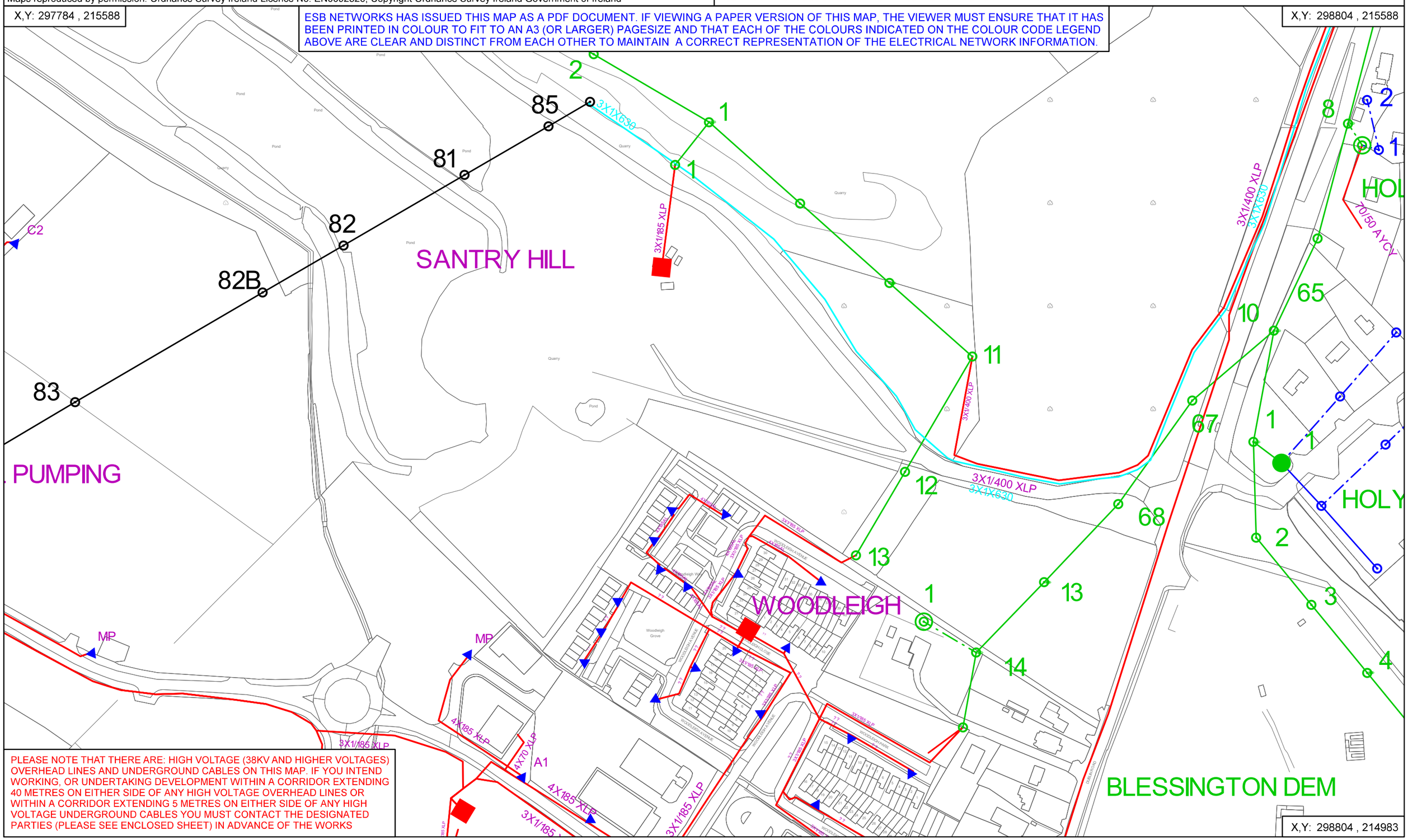
X,Y: 297784 , 215588

ESB NETWORKS HAS ISSUED THIS MAP AS A PDF DOCUMENT. IF VIEWING A PAPER VERSION OF THIS MAP, THE VIEWER MUST ENSURE THAT IT HAS BEEN PRINTED IN COLOUR TO FIT TO AN A3 (OR LARGER) PAGESIZE AND THAT EACH OF THE COLOURS INDICATED ON THE COLOUR CODE LEGEND ABOVE ARE CLEAR AND DISTINCT FROM EACH OTHER TO MAINTAIN A CORRECT REPRESENTATION OF THE ELECTRICAL NETWORK INFORMATION.

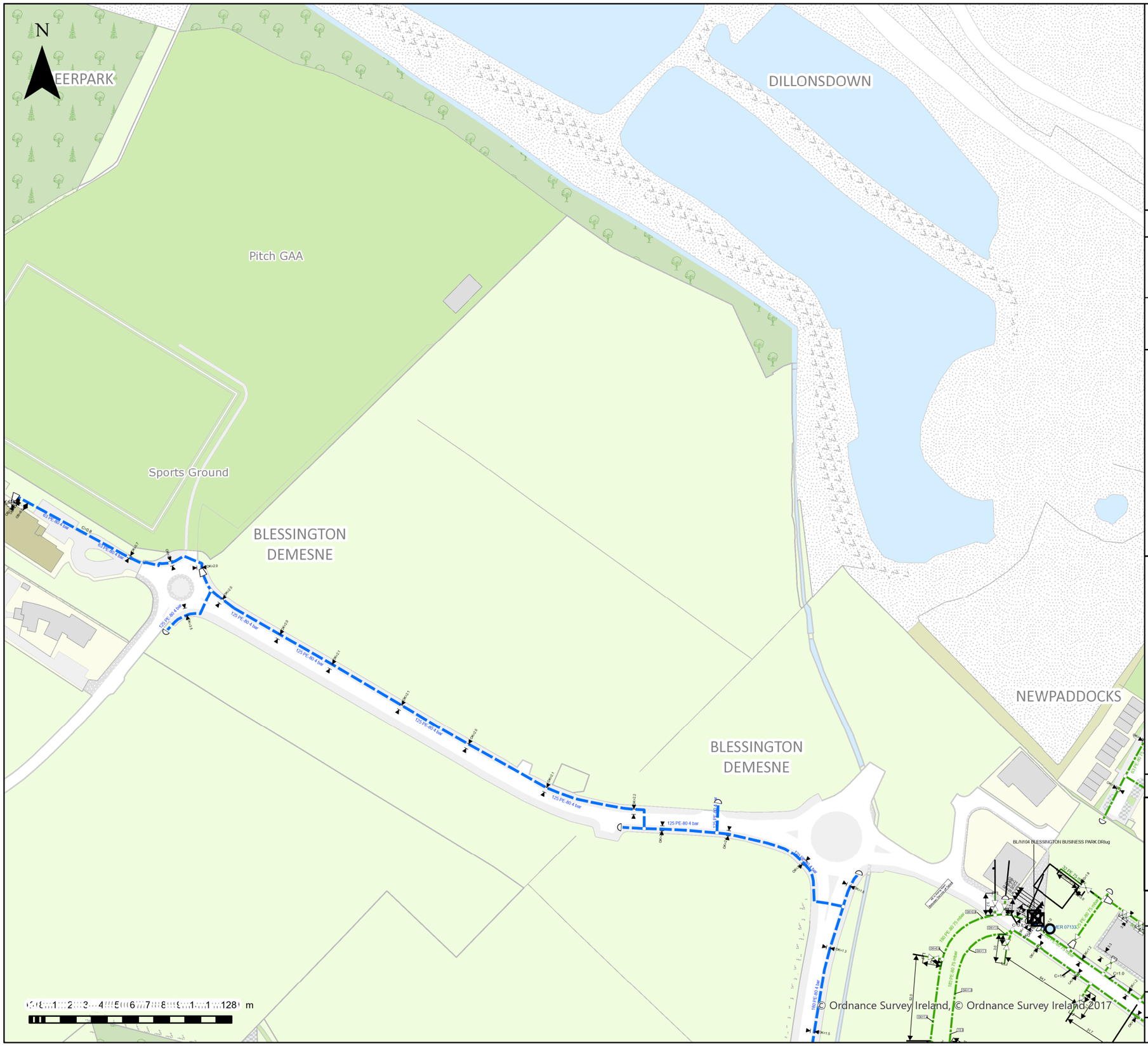
X,Y: 298804 , 215588



PLEASE NOTE THAT THERE ARE: HIGH VOLTAGE (38KV AND HIGHER VOLTAGES) OVERHEAD LINES AND UNDERGROUND CABLES ON THIS MAP. IF YOU INTEND WORKING, OR UNDERTAKING DEVELOPMENT WITHIN A CORRIDOR EXTENDING 40 METRES ON EITHER SIDE OF ANY HIGH VOLTAGE OVERHEAD LINES OR WITHIN A CORRIDOR EXTENDING 5 METRES ON EITHER SIDE OF ANY HIGH VOLTAGE UNDERGROUND CABLES YOU MUST CONTACT THE DESIGNATED PARTIES (PLEASE SEE ENCLOSED SHEET) IN ADVANCE OF THE WORKS

X,Y: 298804 , 214983

Appendix 14E Gas Network Ireland Plans



Important Safety Notice: Damage to gas pipelines can result in serious injury or death. Gas network information is provided as a general guide. The exact location and depth of medium or low pressure distribution gas pipes must be verified on site by carrying out necessary investigations, including, for example, hand digging trial holes along the route of the pipe. Service pipes are not generally shown but their presence should always be anticipated.

High pressure transmission pipelines are shown in red. If a transmission pipeline is identified within 10m of any intended excavations then work must not proceed before GNI has been consulted. The true location and depth of a transmission pipeline must be verified on site by a representative of GNI. Contact can be made through 1800 427 747.

All work in the vicinity of the gas network must be completed in accordance with the current edition of the Health and Safety Authority publication, 'Code of Practice For Avoiding Danger From Underground Services' which is available from the Health and Safety Authority (0818 289 389) or can be downloaded at www.hsa.ie.

Legal Notice: Gas Networks Ireland (GNI) and its affiliates, accept no responsibility for the accuracy of any information contained in this document including data concerning location and technical designation of the gas distribution and transmission network (the"Information"). The Information should not be relied on for accurate distance or depth of cover measurements.

Any representations and warranties, express or implied, are excluded to the fullest extent permitted by law. No liability shall be accepted for any loss or damage including, without limitation,direct, indirect or consequential loss, arising out of or in connection with the use or re-use of the Information.

- Aurora Telecom Duct
- Aurora Telecom Sub Duct
- Aurora Telecom Inserted Gas Pipe

Aurora TELECOM

Aurora Telecom Queries - 01-8926166 (Office Hours)
Aurora_Network_Queries@gasnetworks.ie
Aurora Telecom Emergency Only 1800 427399 / 01 2030120

- Transmission Pipe (High Pressure)
- Transmission Pipe (Construction Issue)
- Distribution Pipe (Medium Pressure)
- Distribution Pipe (Low Pressure)
- Service Pipe (Medium Pressure)
- Service Pipe (Low Pressure)
- Strategic Pipe (Medium Pressure)
- Strategic Pipe (Low Pressure)
- Inserted
- Abandoned Pipe

C=?	Cover (depth in metres)		Pressure Monitor
CP	CP Test Point		Protection (Slabbing)
	End Cap		Protection (Sleeve)
	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

**** Please contact GNI on 1800-427747 for specific information**

DIAL BEFORE YOU DIG 1800 42 77 47
In Emergency call 1800 20 50 50 Gas Networks Ireland

Gas Networks Ireland

GAS NETWORK INFORMATION

Description: test

Location: 697795,715314

Plot Date: 21/08/2023 10:22	Scale: 2500 @ A3
Plotted By: 585	Ref ID: *585_21082023102225*

Appendix 14F Eir Network Plans

A3

School

1376

1377

1374

1416

1375

1409

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1411

1412

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1414

1415

1459

1708

1468

1467

PLANT REQUESTED FROM eircom emaps CBYD SERVICE

https://cbyd.emaps.eircom.ie/

Scale: 1:1500

Date 04/06/2020

Irish National Grid Co-Ordinates
Centre XY: 297814 m, 215037 m

emaps CBYD

Appendix 14G Virgin Media Network

Sports Ground

Sports Ground

Pond

Pond

Pond

Pond

Pond

Muck Pond

Pond

Unit 7,
Westgate Business Park,
Ballymount,
Dublin 24.

PROJECT NAME

DESIGNED BY:

Produced on: 08/12/2022

@ A3