Phase 1 ‘The Farm’ Bessborough, Cork

VOLUME III | APPENDICES

Environmental Impact Assessment Report

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BESSBOROUGH, CORK

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APPENDIX 1

Introduction

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Re: EIAR Scoping – Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork.

Dear Sir/Madam,

We act on behalf of Estuary View Enterprises 2020 Limited who are preparing applications for two Large-Scale Residential Developments (LRD):

- Phase1 – the Farm (with an indicative layout for 140 units),
- Phase 2 – the Meadows (with an indicative layout for 300 units),

at Bessborough, Ballinure, Blackrock, Cork. The applicant also has intentions for a third follow-on phase of development comprising c. 200 no. apartments across 5 blocks as part of a landscaped parkland setting to the west and south of Bessborough House, subject to future zoning revisions. An Environmental Impact Assessment Report (EIAR) is being prepared to accompany the application for both phases.

An overall location map of the lands in the applicant's ownership and a 'working draft' site layout plan for Phases 1 - 2 prepared by Shipsey Barry Architects accompany this letter. The purpose of this letter is to seek any additional comments that The Department of Culture, Communications and Sport may have and that we should have regard to when preparing the EIAR for the project.

01 The Site

The sites of the 2 phases, with a combined area of approximately 6.43 hectares, form part of a larger landholding in the applicant's ownership (c.16.3 hectares), located adjacent to Mahon District Centre, within the Southeastern Suburbs of Cork City, as defined in the Cork City Development Plan 2022-2028. These lands are strategically located, beside the Passage West Greenway which extends along three sides of Bessboro Estate, and benefit from excellent walking and cycling links to the adjacent Mahon District Centre, and key strategic employment areas to the north, east and west. The Bessborough to Mahon Greenway project will enhance upon this existing permeability. Mahon presents sustainable and viable employment opportunities for existing and future residents of the area.

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The Cork City Development Plan Two Year Review Report published in 2024 lists Mahon amongst the accessible locations in the city suitable for the delivery of Transport-Orientated Development (TOD) in the short to medium terms.

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02.1 Phase 1 - The Farm

The proposed development provides for the demolition of 10 no. existing agricultural sheds and structures and the construction of c. 140 apartments over a number of blocks of 4-5 storeys in height. Provision is made for a creche, a café and shared communal facilities, building management facilities including plant and storage areas. The proposed development includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the west, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas. Ancillary site works to include provision of a substation, playground and outdoor amenity spaces, landscaping, on-street car parking spaces, bicycle parking spaces, bin stores and public lighting. Vehicular access to the proposed development will also be provided via two existing access roads off the Bessborough Road.

02.2 Phase 2 - The Meadows

The proposed development provides for the construction of c. 300 apartments and a creche. Ancillary site works include the provision of substations, outdoor amenity areas, landscaping, predominantly under-podium car parking spaces, bicycle parking spaces, motorbike parking spaces, bin stores, public lighting, and all supporting site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessborough Road.

03 Summary

Estuary View Enterprises 2020 Limited are preparing planning applications for 2 no. phases of mixed-use Large-scale Residential Development at Bessborough, Ballinure, Blackrock, Cork. The combined proposed development comprises the construction c. 440 no. residential units with two creches, landscaping, pedestrian/cycleway infrastructure including a bridge over the adjoining Passage West Greenway and associated site development works.

I would be grateful if you would forward any comments you may have on the proposed development to me at our office address listed below, or by email – info@hwplanning.ie. For convenience, this letter has been sent via email and hard copy to the addresses identified above.

The following maps and plans accompany this letter:

- Site Location Map
- 'Working draft' Site Layout Plan showing both proposed phases

Please do not hesitate to contact us if you have any queries.

Yours sincerely

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Yours sincerely

Ann-marie O'Connell
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An Taisce – The National Trust for Ireland
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05 September 2025

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Dear Sir/Madam,

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eimear.harte@artscouncil.ie

05 September 2025

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05 September 2025

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Cork City Childcare Committee
Suite 1, John Dunlop House
Marina Commercial Park
Cork
tina@corkcitychildcare.ie

05 September 2025

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The Department of Education
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05 September 2025

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Re: EIAR Scoping – Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork.

Dear Sir/Madam,

We act on behalf of Estuary View Enterprises 2020 Limited who are preparing applications for two Large-Scale Residential Developments (LRD):

- Phase1 – the Farm (with an indicative layout for 140 units),
- Phase 2 – the Meadows (with an indicative layout for 300 units),

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An overall location map of the lands in the applicant's ownership and a 'working draft' site layout plan for Phases 1 - 2 prepared by Shipsey Barry Architects accompany this letter. The purpose of this letter is to seek any additional comments that The Office of Public Works may have and that we should have regard to when preparing the EIAR for the project.

01 The Site

The sites of the 2 phases, with a combined area of approximately 6.43 hectares, form part of a larger landholding in the applicant's ownership (c.16.3 hectares), located adjacent to Mahon District Centre, within the Southeastern Suburbs of Cork City, as defined in the Cork City Development Plan 2022-2028. These lands are strategically located, beside the Passage West Greenway which extends along three sides of Bessboro Estate, and benefit from excellent walking and cycling links to the adjacent Mahon District Centre, and key strategic employment areas to the north, east and west. The Bessborough to Mahon Greenway project will enhance upon this existing permeability. Mahon presents sustainable and viable employment opportunities for existing and future residents of the area.

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Yours sincerely

Ann-marie O'Connell
HW Planning

The Department of Climate, Energy and the Environment
Tom Johnson House
Haddington Road
D04 K7X4
Email. customer.service@decc.gov.ie

05 September 2025

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The National Monuments Service
Department of Housing, Local Government and Heritage
Room G50, Custom House
D01 W6X0
Email. nationalmonuments@housing.gov.ie

05 September 2025

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Connecting places.

The Development Applications Unit (DAU)
Department of Housing, Local Government and Heritage,
Newtown Road
Y35 AP90
manager.dau@housing.gov.ie,

05 September 2025

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The Oval, 160 Shelbourne Road
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(Regional Inspectorate)
Inniscarra
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Gas Networks Ireland
Gasworks Road
Cork
T12 RX96
Email. networksinfo@gasnetworks.ie

05 September 2025

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The Minister for Children, Disability and Equality
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50 – 58 Lower Baggot Street
D02 XW14
minister@dcde.gov.ie

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03 Summary

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- Site Location Map
- 'Working draft' Site Layout Plan showing both proposed phases

Please do not hesitate to contact us if you have any queries.

Yours sincerely

Ann-marie O'Connell
HW Planning

Connecting people.
Connecting places.

05 September 2025

HW Planning
5 Joyce House,
Barrack Square,
Ballincollig,
Cork
P31 KP84

www.hwplanning.ie
info@hwplanning.ie
+353 (0)21 487 3250

Directors:
Harold Walsh
Conor Frehill

Company Reg. No.
486211

Accreditations
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Re: EIAR Scoping – Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork.

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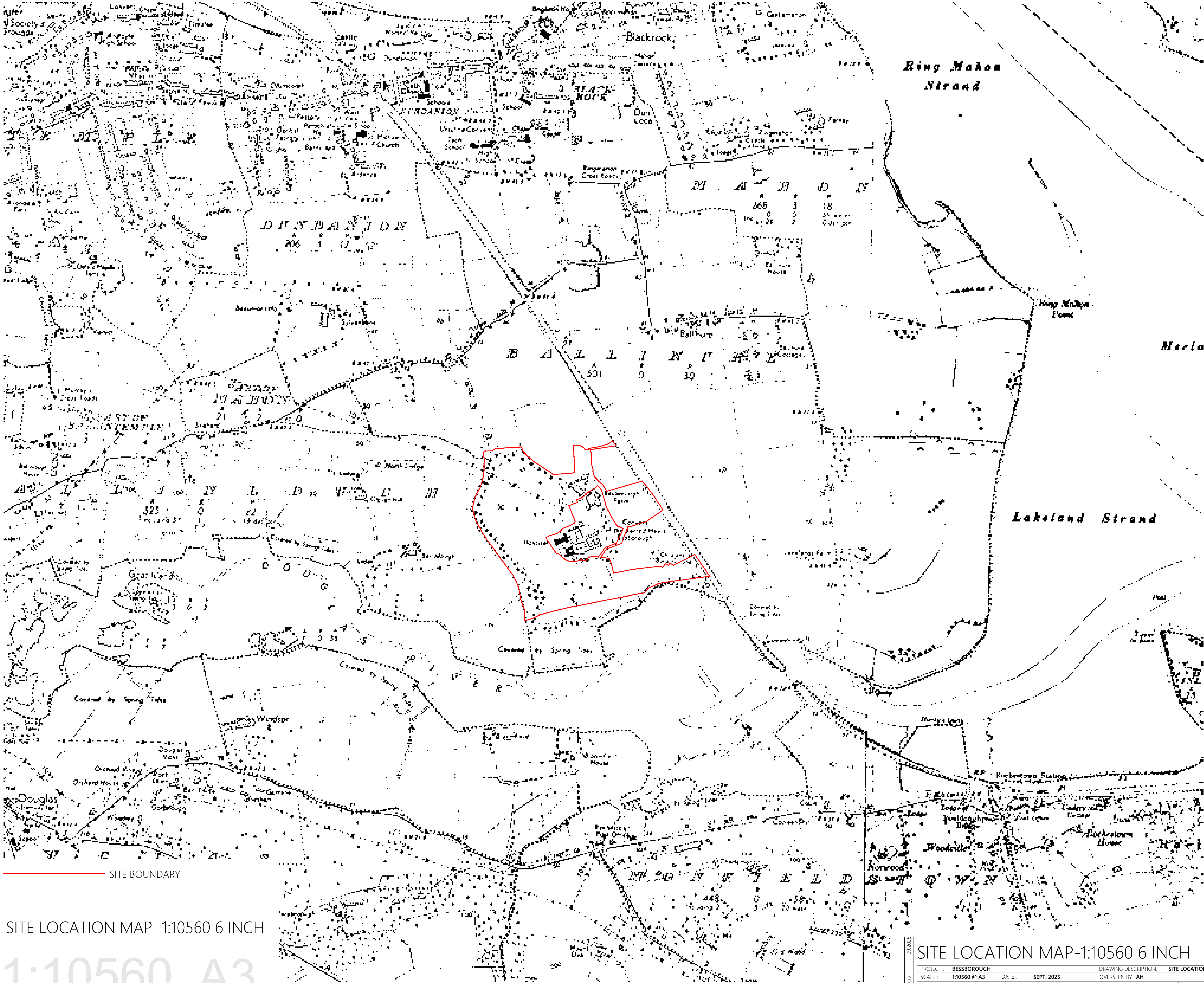
- Appendix 1-1b – Enclosures with Letters to Statutory Bodies



SITE LOCATION MAP 1:10560 6 INCH

1:10560 A3

ORDNANCE SURVEY MAP

Ordnance Survey Ireland

Description:
==
Historic 6" Latest Edition

Publisher / Source:
==
Ordnance Survey Ireland (OSi)

Data Source / Reference:
==
CK074
Revision Date =
Survey Date = 31-Dec-1928
Levelled Date = 31-Dec-1956

CK075
Revision Date =
Survey Date = 31-Dec-1929
Levelled Date = 31-Dec-1935

CK086
Revision Date =
Survey Date =
Levelled Date = 31-Dec-1938

CK087
Revision Date =
Survey Date = 31-Dec-1929
Levelled Date = 31-Dec-1934

NORTH POINT

File Format:
==
Tagged Image File Format (TIFF)

File Name:
==
R_50179190_1.tif

Clip Extent / Area of Interest (AOI):
==
LLX,LLY= 568343.0,567720.0
LRX,LRY= 575353.0,567720.0
ULX,ULY= 568343.0,572914.0
URX,URY= 575353.0,572914.0

Projection / Spatial Reference:
==
IRENET95_Irish_Transverse_Mercator

Centre Point Coordinates:
==
X,Y = 571848.0,570317.0

Data Extraction Date:
==
18-Mar-2021

Product Version:
==
1.3

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==
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Arna thiomsú agus arna fhoilsiú ag Suirbhéireacht Ordanáis Éireann, Páirc an Fhionnuisce, Baile Átha Cliath 8, Éire.

Sáraíonn atáirgeadh neamhúdaraithe cóipcheart Shuirbhéireacht Ordanáis Éireann agus Rialtas na hÉireann.

Gach cead ar cosnamh. Ní ceadmhach aon chuid den fhoilseachán seo a chóipeáil, a atáirgeadh nó a tharchur in aon fhoirm ná ar aon bhealach gan cead i scríbhinn roimh ré ó úinéirí an chóipchirt.

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Ní thaispeánann léarscail de chuid Ordanáis Shuirbheireacht na hÉireann teorann phointí dleathúil de mhaoin riamh, ná úinéireacht de ghnéithe fhisiciúla.

A FOR EIA 09.2025

SITE LOCATION MAP-1:10560 6 INCH

SHiPSEYBARRY place makers

PROJECT : BESSBOROUGH		DRAWING DESCRIPTION: SITE LOCATION MAP- 6 INCH		CLIENT : ESTUARY VIEW ENTERPRISES LTD	
SCALE : 1:10560 @ A3	DATE : SEPT. 2025	OVERSEEN BY : AH	APPROVED BY : GB	DRAWING NO. : 2025-112-001	

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PHASE 3
NORTH FIELDS
200 UNITS

PHASE 2
FARM
140 UNITS

PHASE 1
THE MEADOWS
300 UNITS

Convent
Nursing Home
Car Park
BESSBORO ROAD
THE BESSBOROUGH CENTRE
SAINT MICHAEL'S DRIVE
CITY GATE
Chy
BESSBOROUGH HOUSE
Burial Ground
Pond
SOUTH RING ROAD
HWM
ESB
Tk

SITE LOCATION MAP
1:1000 A1

SITE BOUNDARY

ORDNANCE SURVEY MAP

Ordnance Survey Ireland

NORTH POINT

Map Series | Map Sheets
1:1,000 | 6384-21
1:1,000 | 6428-05
1:1,000 | 6383-25
1:1,000 | 6429-01

Centre Point Coordinates:
==========
X,Y= 571848.0,570317.0

Data Extraction Date:
==========
Date= 18-Mar-2021

Source Data Release:
==========
DCLMS Release V1.138.111

Product Version:
==========
Version= 1.3

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SITE MASTERPLAN
SITE LOCATION MAP 1:1000

SHiPSEYBARRY
place makers

PROJECT :	BESSBOROUGH	DRAWING DESCRIPTION :	SITE LOCATION MAP	CLIENT :	ESTUARY VIEW ENT. 2020 LTD.
SCALE :	1:1000 @ A1	DATE :	04.2021	OVERSEEN BY :	JJ	APPROVED BY :	GB	DRAWING NO :	SB-2025-112-002

A 05.25 09.2025

28,Richmond Hill , Bellfield , Cork, Ireland t : + 353 (0)21 21988 55 f : + 353 (0)21 21988 27 e info@shipseybarry.com www.shipseybarry.com © COPYRIGHT of SHIPSEY BARRY Ltd. This drawing or design may not be reproduced without express written permission of SHIPSEYBARRY Ltd

- Appendix 1-2 - Scoping Responses from Statutory Bodies

From: Minister Foley"s Office
To: Ann-Marie O"Connell | HW Planning
Subject: DCDE-MFO-03247-2025
Date: Friday 17 October 2025 18:16:10

17th October 2025

Ann-Marie O'Connell

amoconnell@hwplanning.ie

Dear Ann-Marie ,

The Minister has asked me to thank you for this letter about the Environmental Impact Assessment Report being prepared in the context of a planning application in Bessborough, Blackrock, Cork City.

The Minister is conscious of the historic significance of the location given that a Mother and Baby institution operated in the grounds between 1922 and 1998 and left a troubling and sad legacy behind. The institution, and the site associated with it, was investigated by the Mother and Baby Homes Commission of Investigation, which was established to examine issues concerning former Mother and Baby institutions. Relevant findings are presented in its Fifth Interim Report and Final Report. The Commission found that over 900 children who were associated with the Bessborough institution died and that, despite extensive searches and inquires, it was not able identify where the majority of those who died while resident there are buried.

In this regard, the Minister would like to highlight that any development of the site should have due regard to the Commission's reports and sensitivities associated with the site and give adequate consideration to the views of survivors and family members.

Yours sincerely

Dr Cian Warfield

Private Secretary to Minister Norma Foley TD

From: ESB Networks Customer Service (ESB Networks)
To: Ann-Marie O"Connell | HW Planning
Subject: Re: EIAR Scoping - Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork [#1295058]
Date: Wednesday 17 September 2025 09:35:11

Good Morning Ann-Marie,

Thank you for your email.

Once ye are ready to apply for connections for the devolvement please attach the documents to your applications. These will be sent to our engineer to discuss.

Kind regards,

Kayleigh

ESB Networks Customer Care | T: 1800372757 | +353 21 2386555 | www.esbnetworks.ie

WARNING: ESB Networks will not be liable for acting on any instructions issued via your e-mail address where it transpires that such instructions were not sent by you.

--Original Message--
From: amoconnell@hwplanning.ie
Date: 09/09/2025 02:59 PM
To: esbnetworks@esb.ie
Cc: info@hwplanning.ie
Subject: EIAR Scoping - Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork

CAUTION: This message is from an EXTERNAL SENDER - be CAUTIOUS, Do NOT Click any links or Open any attachments if you were not expecting them.

Dear Sir/Madam,

Please see attached documents relating to a proposed 'Large-Scale Residential Development' (LRD) to be accompanied by an Environmental Impact Assessment Report (EIAR) at Bessborough, Ballinure, Blackrock, Cork, which we intend to submit to Cork City Council in the coming months, on behalf of our client at Bessborough, Ballinure, Blackrock, Cork.

The purpose of this letter is to seek any additional comments you may have and that we should have regard to when preparing the EIAR for the LRD project.

Please do not hesitate to contact us if you have any queries.

Kind regards,

Ann-Marie O'Connell

HW Planning

5 Joyce House

Barrack Square,

Ballincollig, Co. Cork

---

hwplanning.ie
+353 (0)21 4873250

LinkedIn

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Please consider the Environment before printing this email.

* ** *** ** * ** *** ** * ** *** ** *

Tá an t-eolas sa ríomhphost seo agus in aon chomhad a ghabhann leis rúnda agus ceaptha le haghaidh úsáide an té nó an aonáin ar seoladh chuige iad agus na húsáide sin amháin. Is tuairimí nó dearcthaí an údair amháin aon tuairimí nó dearcthaí ann, agus ní gá gurb ionann iad agus tuairimí nó dearcthaí ESB.
Má bhfuair tú an ríomhphost seo trí earráid, ar mhiste leat é sin a chur in iúl don seoltóir. Scanann ESB ríomhphoist agus ceangaltáin le haghaidh víreas, ach ní ráthaíonn sé go bhfuil ceachtar díobh saor ó víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.
https://esbnetworks.ie/contact-us

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* ** *** ** * ** *** ** * ** *** ** *

From: Michael McPartland
To: Ann-Marie O"Connell | HW Planning
Subject: EIAR Scoping - Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork
Date: Friday 19 September 2025 15:23:55
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home_d6e0b8ad-bed2-44cf-a08c-5ceec6c9c9fe.png
external-signature_6737b7d5-5705-4554-b86d-f0ded9774efe.png

Ann-Marie,

Thank you for your recent email regarding the above-mentioned.
It appears it may be proposed to dispose of septic effluent from the development to the public sewer. IFI would ask that Irish Water signifies there is sufficient capacity in existence so that it does not overload either hydraulically or organically existing treatment facilities or result in polluting matter entering waters. Should this not be the case then please forward proposals for alternative treatment and disposal options.
IFI would ask that there be no interference with, bridging, draining, or culverting of any watercourse, their banks or bankside vegetation to facilitate this development, without the prior approval of IFI and that full cognisance is given to IFI "Guidelines on protection of fisheries during construction works in and adjacent to waters"

https://www.fisheriesireland.ie/media/guidelines-on-protection-of-fisheries-during-construction-works-in-and-adjacent-to-waters

Furthermore, there should be no loss of flood plain as a result of the proposed development.

Michael Mc Partland
Senior Fisheries Environmental Officer.

Iascach Intíre Éireann
Inland Fisheries Ireland

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Fax + 353 (0)26 412 23
Email michael.mcpartland@fisheriesireland.ie
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Help Protect Ireland's Inland Fisheries

Michael McPartland
Senior Fisheries Environmental Officer

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To read our Privacy Policy and Email Disclaimer Notice, Please visit www.fisheriesireland.ie

From: Ann-Marie O'Connell | HW Planning <amoconnell@hwplanning.ie>
Sent: Tuesday, September 9, 2025 2:49 PM
To: Macroom Info <Macroom@fisheriesireland.ie>
Cc: Info <info@hwplanning.ie>
Subject: EIAR Scoping - Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork

Dear Sir/Madam,

Please see attached documents relating to a proposed 'Large-Scale Residential Development' (LRD) to be accompanied by an Environmental Impact Assessment Report (EIAR) at Bessborough, Ballinure, Blackrock, Cork, which we intend to submit to Cork City Council in the coming months, on behalf of our client at Bessborough, Ballinure, Blackrock, Cork.

The purpose of this letter is to seek any additional comments you may have and that we should have regard to when preparing the EIAR for the LRD project.

Please do not hesitate to contact us if you have any queries.

Kind regards,

Ann-Marie O'Connell

HW Planning
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Ballincollig, Co. Cork

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From: INFO
To: Ann-Marie O"Connell | HW Planning
Subject: TII Ref: TII25-133172 - EIAR Scoping - Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork
Date: Monday 15 September 2025 12:28:46

Dear Ms. O'Connell,

Thank you for your correspondence of 9 September 2025, regarding the above. Transport Infrastructure Ireland's (TII's) position in relation to your enquiry is as follows.

The approach to be adopted by TII in making submissions or comments will seek to uphold official policy and guidance, as outlined in the 'Spatial Planning and National Roads Guidelines for Planning Authorities' (DoECLG, 2012). Regard should also be had to other relevant guidance available at www.TII.ie.

The subject site preliminary site layout appears to be proximate to the N40 national road. With respect to EIAR Scoping issues, the recommendations indicated below provide only general guidance for the preparation of EIAR, which may affect the national road network. The developer should have regard, *inter alia*, to the following:

1. As set down in the DoECLG's 'Spatial Planning and National Roads Guidelines for Planning Authorities' (2012), it is in the public interest that, in so far as is reasonably practicable, the national road network continues to serve its intended strategic purpose. The EIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network, in order to demonstrate that the development can proceed, complementary to safeguarding the capacity, safety, and operational efficiency of that network.
2. Consultations should be had with the relevant Local Authority/National Roads Design Office, with regard to the locations of existing and future national road schemes. This part of the assessment is of critical importance, as the N40 abuts part of the indicated development site.
3. The Environmental Assessment should have regard to previous Environmental Assessment Statements/Reports and conditions and/or modifications imposed by An Coimisiún Pleanála, regarding road schemes in the area.
4. Where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) should be carried out in accordance with relevant guidelines, noting construction and operational traffic volumes attending the site and traffic routes to/from the site, with reference to impacts on the national road network and junctions of lower category roads with national roads. TII's 'Traffic and Transport Assessment Guidelines' (2014) should be referred to in relation to the proposed development, with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of TII's TTA Guidelines, which addresses requirements for sub-threshold TTA.
5. TII Standards should be consulted to determine the requirement for s Road Safety Audit (RSA) and/or a Road Safety Impact Assessment (RSIA).

6. Assessments and design and construction and maintenance standards and guidance are available at TII Publications, which replaced the NRA 'Design Manual for Roads and Bridges' (DMRB) and the NRA 'Manual of Contract Documents for Road Works' (MCDRW).
7. Environmental Impact Assessment shall include provision for travel planning/mobility management planning, in the interests of protecting national roads capacity and sustainable travel policy.
8. The developer, in conducting Environmental Impact Assessment, should have regard to TII's Environment Guidelines that deal with assessment and mitigation measures for varied environmental factors and occurrences. In particular, evidenced assessment of the protection of the strategic function of the national road in relation to the following matters, is required:
    a. TII's Environmental Assessment and Construction Guidelines, including the 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (National Roads Authority (NRA), 2006).
    b. The EIAR should consider the 'Environmental Noise Regulations 2006 (SI 140 of 2006)' and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see 'Guidelines for the Treatment of Noise and Vibration in National Road Schemes' (1st Rev., NRA, 2004)).

TII will entertain no future claims in respect of impacts (e.g. noise and visual) on the proposed development, if approved, due to the presence of the existing road or any new road scheme, which is currently in planning.

The developer is advised that any additional works/structures required, as a result of the Assessment, should be funded by the developer.

Notwithstanding any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practice.

I hope that this information is of assistance to you.

Yours sincerely,

_____
Alisha Harper
Regulatory & Administration Executive

From: Ann-Marie O'Connell | HW Planning
Sent: Tuesday 9 September 2025 14:41
To: Landuse Planning
Cc: Info

Subject: EIAR Scoping - Proposed Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork

CAUTION: This email originated from outside of TII. Do not click links or open attachments unless you recognise the sender and are sure that the content is safe.

Dear Sir/Madam,

Please see attached documents relating to a proposed 'Large-Scale Residential Development' (LRD) to be accompanied by an Environmental Impact Assessment Report (EIAR) at Bessborough, Ballinure, Blackrock, Cork, which we intend to submit to Cork City Council in the coming months, on behalf of our client at Bessborough, Ballinure, Blackrock, Cork.

The purpose of this letter is to seek any additional comments you may have and that we should have regard to when preparing the EIAR for the LRD project.

Please do not hesitate to contact us if you have any queries.

Kind regards,

Ann-Marie O'Connell

HW Planning
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In accordance with TII's Right to Disconnect policy, if you are receiving this email outside of normal working hours, I do not expect a response or action outside of your own working hours unless it is clearly noted as requiring urgent attention.

De réir pholasaí BIÉ An Ceart gan a bheith Ceangailte, má tá an ríomhphost seo á fháil agat lasmuigh de na gnáthuaireanta oibre, nílim ag súil le freagra ná le gníomh uait lasmuigh de do ghnáthuaireanta oibre féin mura bhfuil sé ráite go soiléir go bhfuil gá gníomhú go práinneach.

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Ann-Marie O'Connell
HW Planning
5 Joyce House
Barrack Square,
Ballincollig,
Co. Cork

By email : info@hwplanning.ie

Dáta|Date: 12 September 2025 **Ár dTag|Our Ref.:** TII25-133181

Re: EIAR Scoping -Proposed Large-Scale Residential Development (LRD) at Jacob's Island, Ballinure, Cork

Dear Ms. O'Connell,

Transport Infrastructure Ireland (TII) wishes to advise that it is not in a position to engage directly with planning applicants with respect to proposed developments. TII will endeavour to consider and respond to planning applications referred to it given its status and duties as a statutory consultee under the Planning Acts. The approach adopted by TII in making such submissions or comments will seek to uphold official national road and light rail policy and guidelines including *Spatial Planning and National Roads Guidelines for Planning Authorities* (DoECLG, 2012) and TII Publications. Regard should also be made to other relevant guidance available at www.TII.ie.

Thus the issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid planning application referred.

With respect to EIAR scoping issues, the recommendations indicated below provide only general guidance for the preparation of an EIAR, which may affect the national roads network.

Having regard to the EPA *Guidelines on the information to be contained in Environmental Impact Assessment Reports,* 2022 it is recommended as appropriate that the national road and light rail networks are recognised as strategic transport assets under "material assets". EIAR assessment and mitigation should have regard to the following:

- **National Roads:** Official policy for development at or near national roads is set out in in the DoECLG *Spatial Planning and National Roads Guidelines for Planning Authorities* (2012) available at https://www.gov.ie/en/collection/85b83-planning-guidelines-standards/
- **TII Publications**:- In addition, as part of TII's responsibilities for managing and improving the country's national road and light rail networks, the Authority sets development guidance and standards for traffic and road assessments and construction that may be necessary by reason of proposed development location, scale or typology to be prepared to accompany applications for developments or works. Technical guidance and standards are contained in TII Publications, available at https://www.tiipublications.ie/

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www.tii.ie info@tii.ie +353 (01) 646 3600 Parkgate Business Centre, Parkgate Street, Dublin 8, D08 DK10, Ireland

In relation to general EIAR Scoping on the proposed development further general observations for your consideration. The developer should have regard, *inter alia*, to the following;

- TII advises that the constraints and strategic issues highlighted by TII in previous submissions for this area and the impact on the N40 and associated interchange, still remain. In that regard, TII considers that this proposal would appear to propose a further intensification of development which could create an unacceptable impact on the operation, capacity and safety of the N40 and associated interchange.

  Any proposal at this location will need to demonstrate that it is not at variance with national policy in relation to development set out in the DoECLG Spatial Planning and National Roads Guidelines for Planning Authorities (January 2012) and National Strategic Outcome 2 of the National Planning Framework, which includes the objective, '*Maintaining the strategic capacity and safety of the national roads network including planning for future capacity enhancements.*' It is expected that Cork City Council will abide by the provisions of official policy in the first instance and An Bord Pleanála in the event of an appeal.

- The Authority would be specifically concerned as to potential significant impacts the development would have on the national road network (and junctions with national roads) in the proximity of the proposed development, i.e. existing N40, mainline and junction. There are significant capacity issues which pertain to the N40 at this location.

- Consultations should be had with the relevant Local Authority/National Roads Design Office with regard to locations of existing and future national road schemes.

- Consultations should be had with the relevant Local Authority/National Transport Authority with regard to locations of existing and future public transport and sustainable mobility schemes.

- A Traffic and Transport Assessment be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site with reference to impacts on the national road network and junctions of lower category roads with national roads. The Authority's *Traffic and Transport Assessment Guidelines* (TII Publication No. PE-PDV-02045) should be referred to in relation to proposed development with potential impacts on the national road network. The scheme promoter is also recommended to have regard to Section 2.2 of the Guidelines which addresses requirements for the undertaking of sub-threshold TTA only and not traffic impact.

- A mobility management plan should accompany the transport assessment, and should address the following
  - Modal share targets (pre. and post light rail) should be outlined and how any PT modal share is accommodated in advance of light rail,
  - What measures that are proposed to reduce car dependency should be outlined,
  - Detailed phasing proposals of development with associated transport infrastructure provision is required,
  - Consider and address cumulative impacts of other development and impacts on limited national road capacity,
  - The traffic and transport assessment should consider all road users,
  - Mitigation measures should be aligned with phasing of road infrastructure improvements and required public transport interventions; all clearly outlined.

- The designers and assessors are asked to consult TII Publications to determine whether a Road Safety Audit is required.

- The EIAR should have regard to the provisions of Chapter 3 of the DoECLG *Spatial Planning and National Roads Guidelines* in the assessment.

- The EIAR should have regard to TII's Environmental Assessment and Construction Guidelines, including the *Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (March 2014)*,
- The EIAR should consider the European Communities (Environmental Noise) Regulations 2018 (S.I. No. 549 of 2018)) and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see *Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (March 2014)*),

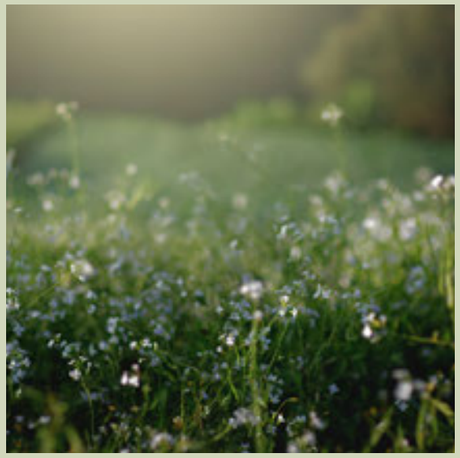
Notwithstanding, any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practise.

No part of this submission shall be construed as TII giving consent to access or alter any national road infrastructure assets including drainage regimes, structures, safety, etc. In the event that any damage is caused by any development works to the national road or associated assets, overground or underground, costs arising to fully remediate all impacted infrastructure assets to TII Publications standards and requirements will be pursued.

In the interests of clarity, the issuing of this correspondence is provided as best practice guidance only. This correspondence does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid planning application referred.

Yours sincerely,

Tara Spain
Head of Land Use Planning



BESSBOROUGH, CORK

APPENDIX 2

Project Description

VOLUME III | APPENDICES

BESSBOROUGH, CORK

APPENDIX 2

Project Description

- Appendix 2-1 –Construction & Environmental Management Plan – Phase 1 'The **Farm**– prepared by the Egis Group Consultant Engineers
- Appendix 2-2 – Phase 1 'The Farm' Proposed Site Layout – prepared by Shipsey Barry Architects
- Appendix 2-3 – Indicative S247 Phase 2 'The Meadows' Proposed Site Layout – prepared by Shipsey Barry Architects
- Appendix 2-4 - Phase 1 'The Farm' Primary Planting Plan prepared by Ilsa Rutgers Landscape Architecture
- Appendix 2-5- Phase 1 'The Farm' Services Infrastructure Report prepared the Egis Group, Consultant Engineers
- Appendix 2-6 - Phase 1 'The Farm' Climate Impact and Energy Analysis Report prepared by DKPartnership

- Appendix 2-1 –Construction & Environmental Management Plan – Phase 1 'The Farm'– prepared by the Egis Group, Consultant Engineers

PHASE 1 LRD DEVELOPMENT AT THE FARM, BESSBOROUGH, BALLINURE, CORK.

Construction & Environmental Management Plan (CEMP)

This document is considered to also act as a Construction and Demolition Waste Management Plan at Planning Stage

01 December 2025

Document Information

GENERAL INFORMATION

Client:	Estuary View Enterprises 2020 Ltd
Project Title:	PHASE 1 LRD DEVELOPMENT AT THE FARM, BESSBOROUGH, BALLINURE, CORK.
Report Title:	Construction & Environmental Management Plan (CEMP)
File Name:	25629-EEI-XX-XX-RP-CE-10009_Construction_&_Environmental_Management_Plan

HISTORY OF CHANGES

DOCUMENT REVISION			DOCUMENT VERIFICATION			
22/09/2025	P01	S3	TF	POKL	TF	N/A
01/12/2025	P01	S3	TF	POKL	TF	N/A

Formerly JB Barry & Partners who became part of Egis in 2023.

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1 INTRODUCTION

1.1 Introduction

This Construction and Environmental Waste Management Plan (CEMP) has been prepared as part of the planning application for the Phase 1 - The Farm, Bessborough LRD development. The site is located in Bessborough, Ballinure, Blackrock, Cork.

The CEMP considers the proposed works associated with the construction of 140 apartments, a creche and shared communal facilities including a resident's gym, workspace, lounge, function room, library, lobby and concierge facilities. The proposed development will include a new pedestrian/cycle bridge over the adjoining Passage West Greenway connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas. The development also consists of the demolition of 10 no. existing agricultural buildings /sheds and log cabin structure. This CEMP will assist with avoiding, reducing, or mitigating construction and environmental impacts arising from the proposed development.

This document has been prepared based on known assessment issues related to construction works management, traffic and transportation measures, air quality, noise and vibration, water and wastewater, landscape management, archaeology, waste management, emergency planning response and inspection and monitoring, all of which are associated with the construction works. This information will be built on prior to commencement of construction in an updated CEMP.

More detailed site-specific measures will be developed and agreed with Cork City Council prior to the commencement, subject to a successful planning application. The final CEMP will consider any conditions attached to a grant of planning permission.

The Phase 1 – The Farm application represents one of two phases of the development proposed by Estuary View Enterprises 2020 Ltd, for which planning permission is being sought from Cork City Council under the LRD planning legislation.

Further development of the site is intended under a separate and later planning application for a development of circa 282 apartments on a site adjacent to The Farm site and to be known as Phase 2 - The Meadows. A separate CEMP will be prepared for this proposed development and it will take into account the proposals and measures detailed in this CEMP for The Farm.

The following guidelines have been taken into account in the preparation of this document:

- CIRIA. 2015 (Fourth Edition). Environmental Good Practice on Site Guide. CIRIA C741. London, UK.
- CIRIA. 2001. Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors. CIRIA C532. London 2001.
- IFI (Inland Fisheries Ireland). 2016. Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters.

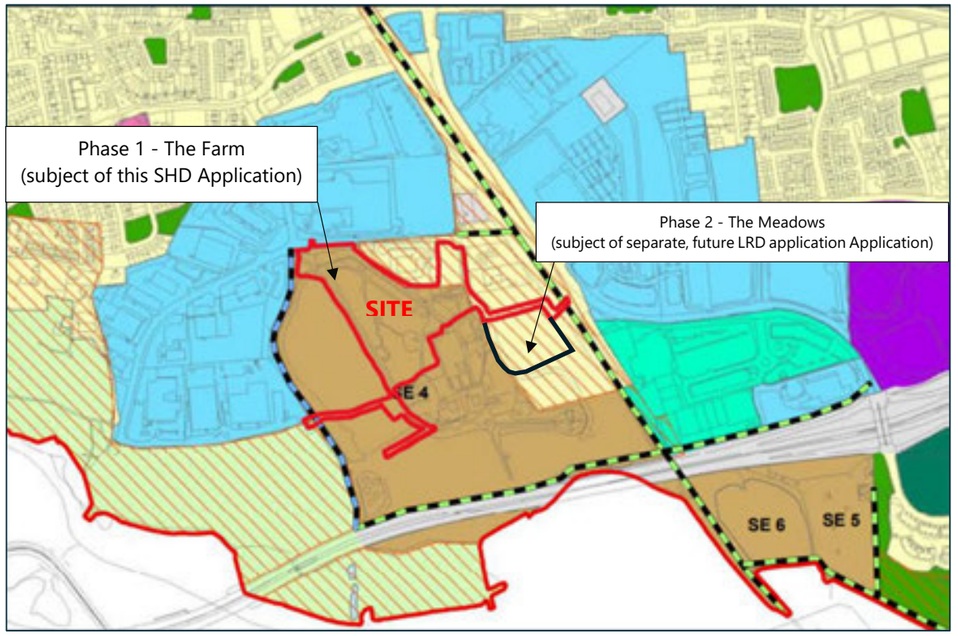

FIGURE 1-1: ZONING DIFFERENCES ACROSS THE PROPOSED SITE (CORK CITY DEVELOPMENT PLAN 2022-2028)

1.2 The Development

1.2.1 Existing Site

The application site is in Bessborough, Ballinure, Blackrock, considered within the south-eastern suburbs of Cork City as defined in the Cork City Development Plan 2022-2028. Access to/from the site is via an existing access road, Bessborough Road. Bessborough Road joins the wider road network at the junction with Skehard Road. Access to the site is by means of the existing access road serving Bessborough Day Care Centre and Bessborough Castle Folly. The existing development lands currently accommodate existing disused farm and outbuildings and a treed amenity area and the site is therefore considered predominantly brownfield. Nearby buildings include Bessborough Day Care Centre to the north, Cork Community Mediation Service and the Bessborough Centre immediately to the south.

The surrounding lands are predominantly a mix of residential, parklands and commercial/industrial buildings at Mahon Industrial Estate. There have been several residential developments north of the proposed site, close to the Mahon Industrial Estate, in recent years.

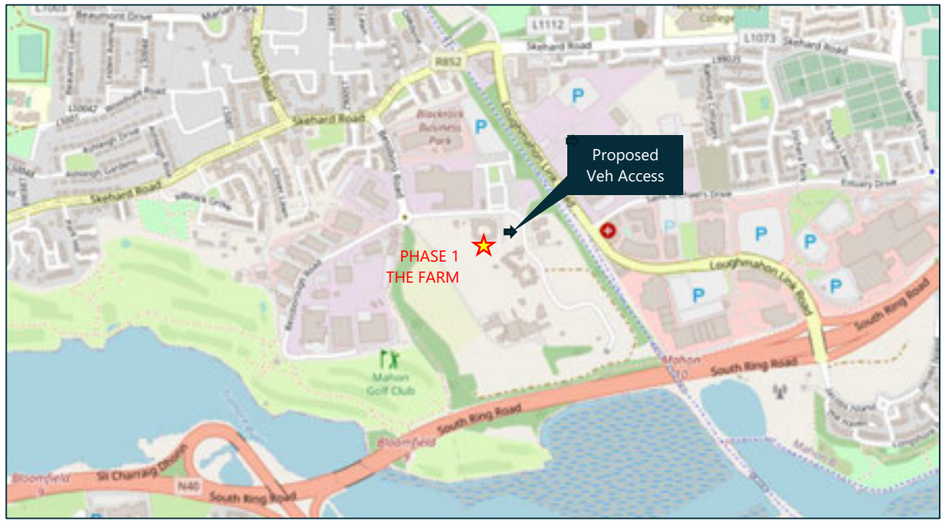

FIGURE 1-2: SITE LOCATION AND ACCESS ROUTE

1.2.2 Proposed Development Site Overview

The overall proposed development (Phases 1 & 2) is ultimately intended to comprise circa 420 residential units with a creche, café, residence gyms, landscaping, pedestrian/cycleway infrastructure and associated site development works located on lands bounded by the N40, Bessborough Road, the Passage West Greenway and the Ballinure amenity walk.

Permission for the first phase of the proposed development is being sought under an LRD planning application, named as Phase 1 - The Farm. A later, separate LRD application will be submitted for Phase 2 - The Meadows.

1.2.3 Proposed Development : Phase 1 -The Farm

This CEMP is prepared for the Phase 1 element of the development. A proposed site layout plan is shown in Figure 1.3 below and included in Appendix 1.

Later development of a Phase 2 and possibly Phase 3 development will be sought by subsequent planning applications and further versions of a CEMP will be prepared for such applications as required.

The proposed development provides for the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structures and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: Block C (9 no. 1-bedroom and 25 no. 2-bedroom over 3 storeys), Block D (34 no. 1-bedroom & 24 no. 2-bedroom over 3-4 storeys), Block E (27 no. 1-bedroom, 20 no. 2-bedroom & 1 no. 3-bedroom over 4-5 storeys). It is proposed to use retained Block A and Block B for resident amenities which include home workspace, library, lounge and function space.

The proposal will include a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas, as well as new pedestrian access to Bessborough Estate to the north including tie-ins to existing and proposed cycle/pedestrian improvements on Bessborough Road which are to be provided by Cork City Council as part of the Bessborough to Mahon Pedestrian and Cycle Safety Scheme.

The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road.

FIGURE 1-3: PHASE 1 – THE FARM PROPOSED SITE LAYOUT

2 ROLES AND RESPONSIBILITIES

2.1 Client and Contractor

The Applicant will be responsible for ensuring that an appropriate Environmental and Waste Management Framework is adhered to, that competent parties are appointed to undertake construction and that sufficient resources are made available to facilitate the appropriate management of risks to the environment.

As part of the Environmental and Waste Management Framework the Building Contractor will need to comply with all relevant environmental legislation, take account of published standards (ISO14001) and relevant documentation including the Environmental Impact Assessment Report (EIAR), any planning conditions from Cork City Council, this CEMP and the subsequent detailed CEMP. Regarding the subsequent detailed CEMP, the Applicant is responsible for ensuring that this is developed in consultation with the design team and the local authority.

The Building Contractor is also responsible for ensuring that all members of the Project Construction Team, including sub-contractors, comply with the procedures set out in the CEMP, including following any specific requirements set-out in the EIAR. The Contractor appointed will be responsible for the organisation, direction and execution of environmental and waste related activities during the construction of the proposed development. In addition, they will ensure that all persons allocated specific environmental and waste responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

2.2 Site Manager

A Site Manager will be appointed by the Contractor to oversee the day-to-day management of the site and ensure that effective, safe and planned construction activities are delivered on an ongoing basis to the highest standards. The Site Manager will be competent, suitably qualified and an experienced professional that will oversee site logistics, communicate regularly with construction staff, accommodate project-specific inductions for staff on-site and ensure that all work is complaint with the relevant design standards and health and safety legislation.

2.3 Site Environmental and Waste Manager (SEWM)

A Site Environmental and Waste Manager will be appointed by the Contractor to ensure that the CEMP is effectively implemented. The Environmental and Waste Manager will be suitably qualified and competent. The responsibilities of the SEWM include, but are not limited to:

- Preparing, maintaining and implementing the CEMP
- Completing site inspection and environmental and waste compliance reports
- Providing guidance for the site team in dealing with environmental and waste matters, including legal and statutory requirements affecting the works
- Reviewing environmental and waste management content of method statements where relevant
- Reporting environmental and waste performance to the Site Manager
- Liaising with statutory and non-statutory bodies and third parties with an environmental/waste interest in the proposed development.
- Conducting regular environmental and waste inspections as specified in the contract and checking adherence to the CEMP.
- Keeping up to date with relevant environmental and waste best practice and legislative changes
- Ensuring all personnel have undertaken adequate environmental and waste inductions, awareness briefings and training (including sub-contractors)
- Dealing with environmental and waste related complaints
- Managing and responding to environmental and waste management incidents and ensuring that all incidents are recorded and reported in an appropriate manner.

2.4 Environmental Specialists

Where relevant, and to fulfil obligations under the CEMP, Estuary View Enterprises 2020 Limited will be responsible for engaging suitably qualified specialists including (where necessary):

- Project archaeologist;
- Project ecologist;
- Project arborist;
- Noise and vibration specialist;
- Air Quality and dust specialist;
- Waste Management specialist;
- Land, soils and contamination specialist; and
- Water specialist.

2.5 Training and Induction

2.5.1 Site Induction

All personnel involved in the proposed Phase 1 – The Farm development will receive environmental and waste management awareness training. The environmental and waste management training and awareness procedure will ensure that staff are familiar with the principles of the CEMP, the environmental/waste aspects and impacts. associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

2.5.2 Specific Training and Awareness Raising

A project specific training plan that identifies the competency requirements for all personnel allocated with environmental and waste management responsibilities will be produced by the Contractor. Training will be provided by the Contractor to ensure that all persons working on site have a practical understanding of environmental and waste issues and management requirements prior to commencing activities. A register of completed training is to be kept by the SEWM. The Site Manager will ensure that environmental/waste emergency plans are drawn up and the SEWM will conduct the necessary training/inductions.

3 CONSTRUCTION WORKS MANAGEMENT

3.1 Construction Works Management

The development of Phase 1 - The Farm will include the construction and completion of 140 no. residential units and creche comprising 5 apartment blocks and all ancillary works. Prior to any construction works being carried out, the proposed development will initially involve some site clearance, the demolition of existing farm buildings and sheds and earthworks in order to clear and grade the site to accommodate the construction of all associated engineering works and subsequently the building foundations.

This will involve the delivery of machinery, site equipment/plant and materials and the removal of some material off-site. Any material that can be reused later in the construction process will be stockpiled in an appropriate location. This will reduce the number of vehicular movements on the public roads. Once the site access, parking and compound facilities are established, the main haulage of materials to the site will include stone, concrete, blocks, steel and other building materials. Appropriate traffic management measures will be provided to minimise the impact of construction traffic on the local road network as detailed in Section 4 of this report.

An indicative construction sequence is outlined below to illustrate the buildability of the project. The actual construction sequence will be confirmed when any conditions of planning are received, and construction appointments confirmed.

To develop the complete site, the following works will be required to be carried out:

- Provision of a temporary construction access from the existing Bessborough Road into the site (at the location of the proposed permanent entrance), safe and secure site compound including welfare facilities for workers and the erection of temporary boundary fencing.
- Measures to reduce the potential risk of impacts to retained trees.
- Creation of a storage area for surplus plant and materials.
- Creation of a site batch concrete area.
- Creation of silt traps at the low point to the south of the construction site to prevent construction runoff towards natural vegetation and Cork Harbour estuary watercourse.
- Demolition of existing farm buildings and sheds and management of the materials arising from that demolition.
- Trenching for underground services including foul sewer, surface water drainage including attenuation, water mains, gas, telecommunications, electricity and lighting.
- Construction of a new pedestrian/cycle bridge over the existing Passage Greenway and linking to the existing down ramp to the greenway.
- Construction and connection of underground services to existing underground services.
- Foul sewer connection will be made across the Ballinure walkway to the west of the site to connect to the existing wastewater pumping station close to the western boundary of the site. The final section of the foul sewer connection to the existing Ballinure wastewater pumping station will be made using directional-drilling methods (and not open-cut trenching) to maintain the integrity of the existing boundary wall to the estate and to allow the walkway to remain in use while these works proceed. A pipe jacking chamber will be constructed on the eastern side of the existing boundary wall to facilitate this installation work.
- Surface water connection will be made to an existing surface water sewer in the south-western area of the site.
- Watermain connections will be made to the existing watermain in Bessborough Road.
- No dwelling unit will be occupied prior to the completion of an approved foul sewer outfall and no hard-standing area will be completed without an approved storm outfall.
- Excavation and concrete works for strip and pad footing foundations.
- Piling to some blocks, likely to be bored piles with in-situ concrete and rebar infilling.
- Construction of the apartment buildings, plant and storage areas, likely to be constructed in reinforced-concrete frames.

- Construction of ancillary site works including the provision of 1 substation, outdoor amenity areas, landscaping, 58 car parking spaces, 5 motorbike spaces, 330 bicycle parking spaces, bin stores, public lighting and all supporting site development works.
- Erection of permanent boundary fencing, landscaping and lighting.

It is estimated that Phase 1 construction will take approximately 24 months to complete.

3.2 Working Hours

It is envisaged that normal working hours will be between 7:00am and 6:00pm, Monday to Friday and 8:00am to 2:00pm on Saturdays, subject to any conditions set down by Cork City Council. No working will be allowed on Sundays or Bank Holidays. Subject to the agreement of the local authority, out-of-hours working may be required for water main connections, foul drainage connections, tower crane erection and removal etc. Any such arrangements will be agreed at construction stage.

3.3 Cranes and Lifting Equipment

Demolition of the existing buildings on the site will require the use of mobile cranes and smaller construction vehicles to dismantle existing structures and segregate materials arising into separate waste streams. Details of the waste management procedures to be adopted on the site are set out in Section 10 below.

The proposed build method for the apartment blocks is likely to be as a reinforced concrete (RC) frame. Tower cranes and concrete placing booms will be required to erect the RC frame. A combination of goods hoists and telehandlers will offload and distribute materials for the construction and finishing trades.

Craneage will be required for the installation of the main structure of the pedestrian/cyclist bridge.

All lifting equipment and appliances will carry current test certificates and be inspected prior to use. Trained and competent bankmen will attend the cranes.

Road Closures may be required for a short period to enable the tower crane to be transported to/from site. The appropriate approvals and permits for any road closures will be applied for and agreed with Cork City Council. All relevant stakeholders will be kept informed of any such closures.

3.4 Site Storage

Due to the site restrictions, the storage of materials on site will be kept to the minimum. A construction programme will be developed to ensure that no large materials will be required to be stored on-site until they are needed.

Materials arising from demolition will be segregated into the different waste streams and disposed of in accordance with the details set out in Section 10 below.

Materials such as glazing and cladding systems will be delivered in batches and loaded evenly on the required floors. Throughout the project, storage of materials outside the site boundary will not be permitted.

3.5 Site Safety and Access/Egress

Appropriate management of the transport operations will be applied throughout the construction process. Construction site compounds and staff parking areas will be set up before any construction works start on-site. The site compounds will be located within the site's boundary at appropriate locations as shown in Figure 3.1. Hoarding and boundary fencing will be erected to delineate all site works and separate same from the surrounding public areas located adjacent to the development.

It is not yet confirmed as to where staff parking will be provided. As some of the proposed car park for site staff may located off-site and away from the site compound, there will be appropriate pedestrian facilities between the two which will segregate pedestrians from moving traffic and give priority to pedestrians at any

crossing points. A detailed Construction Traffic Management Plan will be prepared by the Contractor and submitted to the Planning Authority prior to the commencement of any construction.

It is proposed to construct the bridge structure which will link the site to the Passage West Greenway as part of the Phase 1 works. This would enable a connection for construction workers to use active travel or public transport during future phases of development, reducing the requirement for dedicated parking spaces for some workers.

The construction of the bridge structure over the greenway will require work on both sides of the proposed structure to install abutments/landing areas for what is likely to be a steel structure which is fabricated off-site and delivered and erected on site by crane in a single operation. The construction of a suitable abutment structure/landing area on the eastern side of the greenway will require temporary closure of the access ramp into which the bridge connects, and the timing and sequencing of this work will be agreed with Cork City Council. The impacts on the use of the greenway will be limited in extent and significance for this stage of the works.

FIGURE 3-1: POSSIBLE MULTIPLE SITE COMPOUND LOCATIONS

During the construction of the bridge, a closure of the greenway will be required to construct the bridge supports and lift the bridge into place. When the prefabricated bridge structure is being lifted into place there will be a requirement to close the greenway and ramp access to allow this work to proceed safely. This closure is likely to be for a limited period only and again the details of such a closure will be agreed with Cork City Council in advance of construction work commencing on the development. Appropriate diversions will be in place from both the Blackrock and Rochestown side, using the facilities around the Mahon Retail Park. Travelling from Blackrock, users will exit the greenway at the Mater Hospital ramp and use the facilities on the R852 and re-join the greenway prior to the N40 overbridge. From the Rochestown direction, the reverse of the above route will enable users to continue their journey during the bridge construction.

Security of the site is an important issue with respect to restricting site entry to personnel solely involved in the construction process during working hours and preventing unauthorised access out of hours. Site access for all personnel and visitors will be strictly controlled and all visitors will report to the site office prior to entering the construction area.

4 TRAFFIC & TRANSPORTATION MEASURES

4.1 Introduction

Chapter 5 of the EIAR and the Traffic and Transport Assessment (TTA) and Mobility Management Plan (MMP) will identify any significant potential impacts in respect of traffic during the construction phase.

It is likely that, in general, the impact of the construction traffic will be temporary in nature and less significant than the final development operational stage and it is assessed that the surrounding road network is suitable to accommodate the construction traffic associated with the proposed development.

The TTA will point to the need for a detailed Construction Traffic Management Plan (CTMP) to be prepared by the successful contractor in consultation with Cork City Council Roads and Transportation Department.

The principal objective of the CTMP is to ensure that the impacts of all building activities generated during the construction phase upon the public (off-site), visitors to the subject site (on-site) and internal (on-site) workers environment are fully considered and proactively managed/programmed, thereby ensuring that safety is maintained at all times, disruption is minimised, and that works are undertaken within a controlled, hazard-minimised environment.

4.2 Access Control

The proposed construction site is located off the access road which serves existing buildings including the Bessboro Day Care Centre and the Cork Community Mediation Service. See Figure 4.1. The proposed development is approximately 700m from the junction of Skehard Road and Bessboro Road. This is the main access point from the wider road network and will form the preferred haulage route to/from the site in agreement with Cork City Council. The geometry of the access route is appropriate for construction traffic and HGVs. A number of nearby residential developments were recently completed and would have used the same access route, up to a point, for this development.

It is anticipated that heavy goods vehicles, HGVs, will be restricted to off-peak times on the local road network to reduce the impact on the road network during the morning and evening peaks. It is expected that HGV movements and general deliveries will otherwise arrive/leave throughout the day at a steady rate.

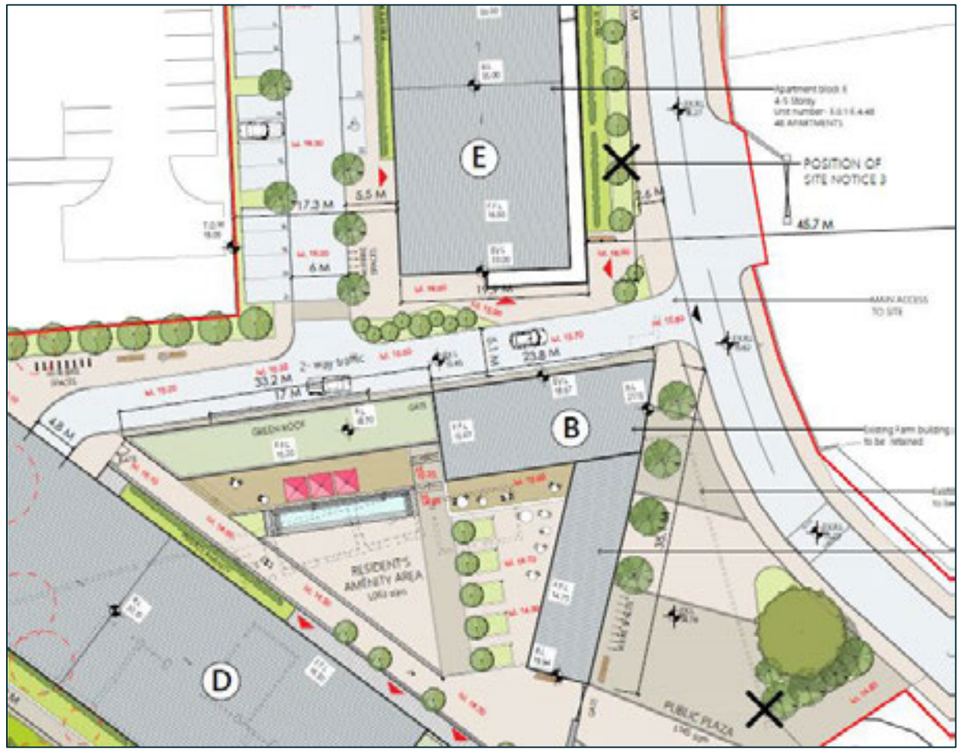

FIGURE 4-1: PROPOSED OPERATIONAL / CONSTRUCTION SITE ACCESS

Appropriate signage for the site will be provided on the approach routes to provide clarity for construction vehicles, particularly deliveries who may not be familiar with the site location. This will provide wayfinding for drivers and limit the number of turning manoeuvres outside the site.

The following section includes a range of mitigation measures to minimise the construction traffic generation, ensure the safety of the workforce on the site and accessing the site, and ensuring the safety of the public on the surrounding roads.

4.3 Construction Related Traffic Movements

The site clearance, demolition and general construction activities will generate a level of vehicle movement to and from the site as well as internally within the subject site.

The typical construction trips generated during site clearance and construction comprise:

- Construction employees arriving and leaving work.
- Deliveries and removal of machinery; and
- Delivery and removal of materials. Including wastes arising from demolition

Appropriate measures will be put in place to ensure safe access to/from the site. Measures will also be implemented on-site to ensure safe maneuvers can be carried out within the construction site. A construction site car park will be located within the Applicant's lands, and possibly on nearby, third-party lands if required, with a dedicated pedestrian route to the site accommodation. There will be designated areas on site for loading/unloading and a specified storage area for materials and machinery. A waste and recycling area will be established within the construction site boundary, close to the construction access, to prevent unnecessary

trips through the site for collection. To ensure that the internal site routes and the public road to the construction site entrance is kept in good condition, a wheel washing facility will be located close to the exit from the construction area to minimize mud and dust.

The level of construction traffic throughout the working day is expected to be low to moderate, the highest volume of vehicles is expected when workers arrive to and leave work. Generally, workers are expected to travel by private vehicle and public transport. It is expected that there will be a typical average of approximately 80 no. construction employees on site during Phase 1 works.

Deliveries and HGV movement numbers are expected to be low to moderate and evenly spread throughout the day. The HGV traffic is expected to be greater during the initial stage of the development as larger machinery and materials will be delivered. This will, however, reduce as the construction of the buildings advance.

Deliveries of materials to site will be planned to avoid high volume periods where possible, particularly the AM peak hour. There may be occasions, however, when it is necessary to have deliveries within these periods. As previously stated, the Contractor will develop, agree and submit a detailed Construction Traffic Management Plan to the local authority for approval prior to commencement of construction works. The following section details some of the mitigation measures to be included in the detailed CTMP.

4.4 Mitigation Measures

A competent traffic co-ordinator and banksmen will be appointed by the contractor to oversee the following control measures which will be implemented as part of the final CTMP to reduce the risks associated with construction traffic. Some of the following measures also tie in with mitigation measures for dust and noise.

- A detailed site plan/layout of the construction site will be developed to identify locations for site offices/storage areas/waste management areas etc.
- Entrances and exits – separate entry and exit gateways will be provided for pedestrians and vehicles with a gate attendant employed to interface with the traffic and public to facilitate safe access and egress of vehicles.
- Where employees will need to cross the carriageway, a clearly signed and lit crossing point will be provided where drivers and pedestrians can see each other clearly.
- Visibility – the site operator will ensure that drivers driving out onto the public road have the appropriate visibility splays.
- All public and private walkways will be maintained free of obstructions
- All operators of construction machinery and vehicles will be trained and competent and have valid CSCS cards.
- All site staff will be made aware that there are residents and employees in the surrounding areas using the access road.
- Approach signage with good sightlines will be provided at the site access route and site entrance.
- Traffic management procedures will be communicated to suppliers and workers.
- Deliveries to site will be planned to arrive during working hours only, save for exceptional loads for which a detailed plan will be agreed with the local authority.
- The access route to the construction site entrance and internal site routes will be kept in good condition and clear of obstructions.
- The contractor will put measures in place to mitigate any excessive noise for nearby properties that may be created during construction activities.
- Internal trafficked areas will be watered twice daily on dry days to reduce dust, if required. Vehicles delivering or collecting material with dust potential will be covered with tarpaulin at all times to restrict the escape of dust.
- A stringent 'clean as you go' policy will be implemented on site to ensure no loose material is left on the ground within the construction access road and the public road.
- Vehicle wheel washing facilities will be in place for vehicles leaving the construction site area.
- A road sweep will be deployed if necessary to ensure the site access route between the site access and the Skehard Road junction will be kept clean at all times.
- Construction materials or equipment will not be stored outside the site boundary.
- Pedestrian/vehicular routes, crossing points, parking, loading and vehicle only areas will be clearly marked, signposted and segregated as appropriate.
- Where required site vehicles will be fitted with appropriate audible and visual devices.
- Loading and unloading will be carried out in a designated area within the construction site boundary and reversing activities will be kept to a minimum.
- Loads will be checked prior to unloading and loads will be adequately secured for travel.
- Visitors to site will be accompanied and a safe area will be provided for visiting drivers during loading and unloading.
- Speed limits signage will be used to control speeds on the access route and within the construction site.
- Construction vehicles and machinery will be maintained in good condition by a competent person as per the manufacturer's instructions. A dedicated area for maintenance work will be provided within the construction site area.
- All operators will wear personal protective equipment on-site and seat belts, where fitted by the manufacturer, will be worn when operating equipment.

5 AIR QUALITY

5.1 Introduction

As construction activities are likely to generate some dust emissions, dust management requirements will be developed and implemented as part of the detailed Dust Mitigation Plan during the construction phase of the project. The potential for dust to be emitted depends on the type of construction activity being carried out, the dust controls in place and also the weather conditions, such as the level of rainfall, wind speed and direction.

A preliminary Dust Management Plan will be prepared by the DK Partnership as part of the Environmental Impact Assessment Report (EIAR) for the project and this plan will be used to guide construction practises.

5.2 Dust Sources

The potential impact for dust depends on the distance to potentially sensitive locations, such as neighbouring residential and commercial properties in this case. The main activities that give rise to dust emissions during construction include the following:

- Excavations and piling
- Materials handling and storage.
- Temporary stockpiling of any earthworks material for re-use
- Movement of vehicles, particularly HGVs.

The mitigation measures set out below will be put in place during the construction phase. The level of dust control to be implemented will depend on the weather conditions, the specific construction activities (e.g. earthworks activities, construction activities and site vehicle movements) and the potential for dust nuisance as a result of those activities.

5.3 Mitigation Measures

Mitigation measures for dust control will include:

- The contractor will prepare a dust minimisation plan which shall be communicated to all staff.
- Internal trafficked areas will be watered twice daily on dry days to reduce dust if required. Vehicles delivering or collecting material with dust potential will be always covered with tarpaulin to restrict the escape of dust. The contractor shall prepare a dust minimisation plan which shall be communicated to all staff.
- A stringent 'clean as you go' policy will be implemented on site to ensure no loose material is left on the ground within the construction access road and the public road.
- Vehicle wheel washing facilities will be in place for vehicles leaving the construction site area.
- Bessborough public road will be inspected daily for cleanliness and a road sweep will be deployed if necessary to ensure the site access route between the site access and the Bessborough Road/Skehard Road junction will be kept clean at all times.
- Topsoil stockpiles will be located in a location so as not to necessitate double handling and topsoil stockpiles will be seeded to promote grass growth and reduce dust.
- Material handling systems and site stockpiling of materials will be laid out to minimise exposure to wind.
- Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.

Further mitigation measures will be detailed in the preliminary Dust Management Plan prepared by the DK Partnership.

6 NOISE AND VIBRATION CONTROL MEASURES

6.1 Introduction

In order to minimise the noise impact on the adjoining community, creche and residential properties it is proposed that heavy equipment and machinery including piling drills (if required), construction vehicles and generators only work between the hours detailed above. In addition, no deliveries and/or removal of materials will occur outside of these hours, save for exceptional situations when permissions will be sought from the Local Authority.

Normal working hours are outlined in Section 3.2 above, however these will be subject to detailed agreement with Cork City Council prior to commencement.

On occasions it may prove necessary to carry out construction activities outside of normal working hours. In such instances prior consultation will be carried out with Cork City Council, local residents, and businesses outlining the nature and reason for the works and their likely duration.

6.2 Noise and Vibration Regulations

During the works the contractor shall comply with the requirements of BS 5228-1:2009+ A1:2014 and BS 5228-2:2009 +A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Applications) Regulations 2007 Noise and Vibration.

6.2.1 Noise Limits

Noise limits to be applied for the duration of the construction works are as set out in BS 5528. This applies a noise limit of 70dBA between 07:00 and 19:00 outside the nearest window of the occupied room closest to the site boundary in suburban areas away from main road traffic and industrial noise.

For the duration of the construction works, a daytime noise limit (07:00 to 19:00) of 70 dBA shall apply (in accordance with BS 5228).

6.2.2 Vibration Limits

Vibration limits to be applied for the duration of construction works are as set out in BS 5228 (Code of Practice for Vibration Control on Construction and Open Sites) and BS 7385:1993 (Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration). Allowable vibration during the construction phase is summarised below in Figure 5.1.

Allowable vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration, at a frequency of		
Less than 4Hz	15 to 40Hz	40Hz (and above)
12 mm/so	12.5 mm/so	50 mm/so

FIGURE 6-1: GUIDELINES FOR ALLOWABLE VIBRATION

6.3 Mitigation Measures

In particular, the following practices are to be implemented during the construction phase:

- Limiting the hours during which site activities that are likely to create high levels of noise and vibration are permitted
- Erection of a barrier along the site boundary (e.g. standard 2.4m high construction hoarding and additional, higher hoarding at boundaries with adjacent existing buildings) to remove direct line of sight between noise sources and receiver when construction works are being carried out in proximity to noise sensitive receivers

- Establish channels of communication between the contractor, local authority and local businesses and residents
- Appoint a site representative (SEWM) responsible for matters relating to noise
- Selection of plant with low inherent potential for generation of noise
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints and implementation of noise reduction measures such as acoustic enclosures when required
- Avoidance of unnecessary revving of engines and switching off of plant when idle
- All plant and equipment will be maintained in good working order in accordance with BS.5228 in order to minimise air and noise emissions.
- All ancillary pneumatic percussive tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers, and where commercially available, dampening tools and accessories shall be used.
- Noise monitors will be erected and data collected to assess sound levels.
- Ear protection zones will be established and all personnel will be trained on ear protection.

7 WATER AND WASTEWATER CONTROLS

7.1 Introduction

All works carried out as part of these works will comply with all Statutory Legislation including the Local Government (Water Pollution) Act, 1977 and 1990 (as amended) and the contractor will cooperate in-full with Uisce Éireann and the Environmental Department of Cork City Council. There is no immediate watercourse in the vicinity of the site. The Douglas Estuary is located approximately 250m south of the site on the southern side of the N40.

The following description outlines the proposed water/wastewater works to be carried out during Phase 1:

- Surface Water - The proposed surface water network will include a drainage pipe network, attenuation storage and SuDS features. The restricted discharge from the site will be conveyed in a new surface water pipe laid from the western boundary of the site in a westerly direction across the Bessborough site to connect to an existing 750mm diameter surface water sewer upstream of its connection to the 1350mm diameter surface water pipe which discharges to the Douglas Estuary south of the N40.
- Foul Drainage - Wastewater collection within the proposed development will be via a network of 150mm and 225mm diameter gravity sewers, which will direct the flows to the southwest corner of the site. A new gravity sewer will then convey the flows in a westerly direction and will connect directly to the Bessborough wastewater pumping station.
- Potable Water - A 300mm diameter ductile iron watermain is located in Bessborough Road to the north of the site. Uisce Éireann have advised that the connection to serve the development is to be made to this existing main.

The mitigation measures outlined below provide the water management controls required to be implemented by potential Contractors and Sub-contractors and set out the proposed procedures and operations to be utilised on the proposed development to mitigate against any water related environmental impacts. The mitigation and control measures outlined herein will be employed on site during the construction phase of the development.

The main areas of water related concerns covered by this section are:

- Pre-Construction (Inc Site Clearance)
- Construction Phase drainage controls
- Earthworks (i.e, infrastructure & drainage works) and surface water quality protection
- Temporary stockpiles water management and controls; and
- Fuel usage, storage and management.

7.2 Mitigation Measures

Surface water runoff during site clearance and construction stage can be potentially contaminated. The most likely forms of contamination are ‘siltation’ and spillage. Siltation occurs when soil and particulate matter are washed away in rainfall events by rainwater. Siltation will be mitigated on the project using stilling basins and strainers within the site to prevent silt being lost to the drainage network.

7.2.1 Excavation, Erosion and Sediment Control

- Measures will be implemented to capture and treat sediment laden water run off (e.g. silt traps; siltbuster)
- The area of exposed ground will be minimised and as much vegetation as possible will be retained for as long as is practical
- Delay clearing and topsoil stripping of each area until work is ready to proceed.
- Close and backfill trenches as soon as practically possible
- Any earthworks temporary stockpile areas will require silt fencing to be installed.

- Any on-site settlement areas are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion
- Surface water runoff from areas stripped of topsoil and surface water collected in excavations will be directed to on-site settlement areas, at the lower, southwest end of the site, where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.
- Surface water discharge points during the construction phase are to be agreed Cork City Council's Environment Section prior to commencing works on site.

As fuels and oils are required during construction stage, it is necessary to mitigate the possibility of there being an accidental leakage of these liquids. There will be very limited storage of fuels on site and any fuels stored on site will be bunded and all chemicals will be stored in an appropriate tank. Should any spillage occur on site during construction, it is likely that there will be a localised moderate impact in the short term on the environment.

7.2.2 Accidental Spills and Leaks

- All oils, fuels, paints and other chemicals will be stored in a secure bunded hardstand (impervious) area
- Refuelling and servicing of construction machinery will take place in a designated hard stand area which is also remote from any surface water inlets.
- A response procedure will be put in place to deal with any accidental pollution events and spillage kits will be available and construction staff will be familiar with the emergency procedures and use of equipment.

7.2.3 Concrete

- Concrete batching will take place on-site and offsite. Wash down and wash out of concrete trucks will take place off site and any excess concrete will not be disposed of on site.
- Pumped concrete will be monitored to ensure there is no accidental discharge.
- Mixer washings are not to be discharged into surface water drains and will be directed to settlement areas.

7.2.4 Wheel Wash Areas

- Discharge from any vehicle wheel wash areas is to be directed to onsite settlement areas, debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility.

Through consultation with the Site Manager (SM)/Site Environmental Manager (SEM), a schedule for surface water quality monitoring will be drawn up. This will be finalised prior to the start of construction. Where monitoring parameters are found to exceed the standards laid down, the SM/SEM will initiate and report corrective actions. This may necessitate the alteration of the environmental control measures and in turn the relevant construction method statement.

It is proposed to implement a programme for monitoring water quality at the outfall tie-in as part of the construction of this development, in agreement with the Planning Authority. This programme and sampling requirements will be agreed with Cork City Council.

8 LANDSCAPE MANAGEMENT

During Phase 1 construction, site security fencing and solid hoarding will be used where appropriate to restrict visibility, minimise noise pollution and restrict visibility into the site, minimising the temporary landscape and visual impacts. There is a significant area of existing vegetation/trees to the south and west of the site and along the routes of foul and surface-water outfall/connections. These areas will require protection measures to be employed during construction works, particularly during the construction of the bridge and foul and storm drainage outfalls. It is expected that forty-nine trees will be required to be removed as part of the development of this phase.

Although the removal of some trees will be required for the construction of the pedestrian/cycle bridge and the trenching and construction of watermains, foul and surface-water drainage, such tree removal will be restricted to that identified for removal in the application.

The mitigation measures set out below will be implemented to minimise the impact on any trees/vegetation.

- Consultation with a qualified Arborist, who shall supervise works for which an Arboriculture Method Statement is required.
- The specific Arboriculture Method Statement shall be prepared for any works within the root protection area of any tree to be retained and the measures outlined shall be strictly enforced on site.
- Trees will be protected in accordance with BS: 5837:2012 *Trees in relation to design, demolition and construction. Recommendations* and any further agreed procedures.
- The construction works for the new ped/cycle bridge shall be fenced off with solid hoarding and protected from the public. The contractor will liaise and co-ordinate these works with the Cork City Council.
- Reinstatement of trees and vegetation will be undertaken by a suitably qualified landscape contractor.

9 ARCHAEOLOGY & HERITAGE

9.1 Pre-Construction

Given the historic and sensitive nature of the site, prior to any construction commencing, an archaeological and heritage assessment and surveys will be carried out to include advance archaeological testing across the footprint of the development where machine or hand excavated test trenches allow for the early indication of relevant material. This allows for informed decisions to be made as to how best to progress with construction works and deal with any discovered archaeological finds should they arise.

Based on the results of the above assessments/surveys, detailed monitoring of all groundworks associated with the development may be recommended, with the provision for full excavation of any archaeologically significant material uncovered.

9.2 During Construction

Following the archaeological and heritage assessment, during the construction process, if deemed necessary, archaeological monitoring will be carried out where the construction works are suspected to be in the proximity to an archaeological site. This may involve a forensic archaeologist or human osteoarchaeologist maintaining a watching brief while groundworks are taking place in order to identify and record any archaeological remains that may be present. In the event of archaeological features or material being uncovered during construction monitoring, it is important that all machine work in the immediate area ceases to allow the archaeologist to assess, excavate and record any findings.

Should archaeological features or material be uncovered, adequate funds to cover excavation, fencing, post-excavation analysis and reporting will be made available. This work should be done under license in accordance with Section 26 of the National Monuments Act 1930-2014 and with a method statement agreed in advance with the National Monuments Service (Dept. of Culture, Heritage and the Gaeltacht) and the National Museum of Ireland.

9.3 Mitigation Measures

A programme of archaeological supervision/monitoring of all ground works will be undertaken by a suitably qualified archaeologist. Given the developed nature of the portions of the site (especially within 'The Farm') and previous programmes of archaeological investigations, the archaeological risk is considered to be low. In the unlikely event of an archaeological discovery, the National Monuments Service and Cork City Council will be consulted to agree how the encountered archaeological remains are recorded and resolved.

Site development works (especially ground reduction work) will be monitored by a forensic specialist and osteoarchaeologist to allow for the identification any previously unrecorded burials or human remains. In the event of such a discovery, An Garda Síochána will be immediately notified and the localised works in the affected area will be suspended subject to the direction of An Garda Síochána.

In relation to works to historic boundary walls, it is recommended that interventions to historic masonry boundary walls have intentionally been kept to a minimum. Where repair or rebuilding works to historic masonry walls are required (including the creation of a new pedestrian entrance in the boundary wall adjacent to the historic entrance to Bessborough Estate), such works will be undertaken by suitably experienced conservation contractors with proven experience in the use of traditional lime mortars and rubble masonry.

10 WASTE MANAGEMENT

10.1 Introduction

A detailed Construction and Demolition Waste Management Plan will be agreed with Cork City Council and put in place in order to control waste management on site, ensure segregation of waste streams and minimise construction waste costs. Waste arising from the site will be considered in relation to the waste management hierarchy of prevention, reduce, reuse, recycle, energy recovery and disposal.

Construction and demolition waste is the largest "municipal" waste stream contributing to the current pressure on landfill facilities in the region. Unsustainable management and inappropriate disposal of this waste stream can result in impact on natural resources and lead to environmental pollution. The main sources of waste material at the site will be demolition and construction waste.

Waste is defined as any substances or object belonging to a category of waste specified in the First Schedule (of the Waste Management Act 1996) or included in the European Waste Catalogue, which the holder discards or intends or is required to discard and anything which is discarded or otherwise dealt with as if it were waste shall be presumed to be waste until the contrary is proved.

There are two main types of construction waste – Hazardous and Non-hazardous as detailed below:

10.1.1 Non-hazardous

- Timber Waste
- Scrap Metal
- Plastic
- Paper / Cardboard
- Canteen Waste
- Litter

10.1.2 Hazardous

Hazardous Wastes are defined as wastes which can have a harmful effect on the environment and on human health as they exhibit ignitability, reactivity, corrosivity and/or toxicity and/or are listed as hazardous by the European Waste Catalogue and/or may be identified as hazardous by application of the EPA Waste Characterisation Tool compiled by The Clean Technology Centre.

The hazardous wastes that may be experienced at a development of this nature are as follows:

- Asbestos (in existing buildings and roof coverings)
- Adhesives and Sealants
- Aerosols
- Batteries
- Chemicals
- Cleaning Products
- Oil (Contaminated absorbent Material or debris)
- Paints and Thinner
- Fuels (hydrocarbons such as diesel)
- Concrete waste

The Farm (Phase 1) development will result in the generation of waste material from the following sources:

- Removal of existing boundaries
- Demolition of existing buildings and sheds
- Excavation of soil for site access, to foundations, ductwork and sewers/watermains
- Excavation of stone / made ground at infrastructure tie-ins to existing water mains, sewers, gas etc.

- Surplus material (off-cuts, damaged materials, packaging etc.) generated during the construction of the new development.

Demolition works will not commence until a detailed assessment of the existing buildings has been undertaken to establish the presence or otherwise of asbestos in these existing buildings.

Surveys to date have established that there are no asbestos materials in these existing buildings and this will be confirmed at pre-demolition stage. If asbestos is present, then licenced contractors will be used to safely remove and dispose of these materials in accordance with current national regulations.

Soil will be excavated to facilitate construction of foundations, access roads, the installation of site services and general landscaping. Where possible, excavated topsoil will be reused on site for landscaping. It is anticipated that any additional soil will be removed from the site for reuse, recovery and/or disposal as there are limited suitable onsite re-use options.

The Waste Management Hierarchy states that the most preferred option for waste management is prevention and minimisation of waste, followed by reuse and recycling/recovery, energy recovery (i.e. incineration) and, least favoured of all, disposal. The excavations are required to facilitate construction so the preferred option (prevention and minimisation) cannot be accommodated for the bulk excavation phase.

The next option (beneficial reuse) may be possible for some and potentially all of the inert natural material (Category A1). This material could be used as fill material in other construction projects or engineering fill for waste licensed sites. Beneficial reuse of surplus excavation material as engineering fill may be subject to further testing to determine if materials meet the specific engineering standards for their proposed end-use.

Any nearby sites requiring clean fill/capping material will be contacted to investigate reuse opportunities for clean and inert material. If any of the material is to be reused on another site European Communities (Waste Directive) Regulations 2011, Article 27 requires that certain conditions are met and that by-product decisions are made to the EPA, via their online notification form.

If the material is deemed to be a waste, removal and reuse/recycling/ recovery/disposal of the material will be carried out in accordance with the Waste Management Acts 1996-2008, the Waste Management (Collection Permit) Regulations 2007 (as amended) the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste removed will dictate whether a Certificate of Registration (COR), Waste Facility Permit or Waste Licence is required by the receiving facility.

Once all available beneficial reuse options have been exhausted, the options of recycling and recovery at waste permitted and licensed sites will be considered. The option of disposal of inert natural material to landfill will only be considered once all available reuse options have been explored and where capacity cannot be secured at appropriately permitted/licensed facilities for recycling or recovery purposes.

Any soil/subsoil that is deemed to be contaminated will be stored separately to the clean and inert soil/subsoil. The material will be appropriately tested and classified as either non-hazardous or hazardous in accordance with the EPA publication 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous' using the HazWasteOnline application (or similar approved classification method). The material will then need to be classified as clean, inert, non-hazardous or hazardous in accordance with the EC Council Decision 2003/33/EC.

The highest volume of materials generated will be topsoil and subsoil/stones from site clearance to accommodate access routes, bridge construction, footpaths, services, and foundation excavation to enable construction of the apartment blocks. Some of the material will be re-used on site, however, some will be removed off-site. Given that the proposed developable area is 4.28 hectares, the following estimations of excavated material have been calculated:

- An average depth of 100 - 200mm for topsoil strip will generate approx. 2,950m^3.
- Subsoil excavation for access route and footpath construction, piling and excavation for foundations will generate approx.1,200m^3 of material.
- Excavation for watermains, foul and surface water sewer will generate approx. 5,650m^3 of material.

- Subsoil excavation to provide SUDS attenuation area amounts to approx. 1,050m^3.
- The total subsoil excavation is therefore approximately 7,900m^3.

Approx. 1,500m^3 of topsoil and 3,170m^3 of subsoil will be required for backfilling the SUDS attenuation and trench excavations. As such, it is estimated that approximately 6,180m^3 will need to be transported off-site for reuse/recycling. (See Table 10-1).

Also, the demolition of the buildings will generate quantities of rubble/stone, structural steel and corrugated metal roof sheeting. It is unlikely that any of this material will be re-usable on site so this material will have to be taken off-site to approved recycling/recovery facilities. Surveys to date have established that there is no asbestos materials in these existing buildings and this will be confirmed at pre-demolition stage.

An estimated 320m^3 of rubble/stone will be generated, with approximately 6.5 tonnes of structural steel and 5.0 tonnes of corrugated roof sheeting.

A standard 4-axle rigid construction tipper capacity weight is 20 tonnes which is equivalent to approximately 11 cubic metres of soil. Therefore, approximately 560 HGV loads will be required to export the excess soil off-site, while a further 35 HGV loads will be required to export the demolition waste generated.

TABLE 10-1: CUT AND FILL CALCULATION

Item	Excavate	Reuse	Export
Topsoil Strip	2,950m^3		
Topsoil Reuse		1,500m^3	
Topsoil for Export			1,450m^3
Subsoil from Excavation	7,900m^3		
Fill Required		3,170m^3	
Subsoil Excess for Export			4,730m^3
Total Surplus for Export off-site			6,180m^3

11 EMERGENCY PLANNING AND RESPONSE

A set of standardised emergency response procedures will govern the management of emergency incidents. The contractor will be required to outline emergency incident response procedures in the detailed CEMP and to develop an Emergency Incident Response Plan. These procedures will be as follows:

- Emergency preparedness and response procedure (incl. emergency phone numbers)
- Incident investigation procedure
- Nonconformity, corrective action and preventative action
- Spillage containment procedure
- Pollution prevention programme and corrective action reporting

In the event of spillages or other incidents, steps will be taken to prevent environmental pollution, for example through protection of drains by use of drain covers or booms, use of absorbent granules following a fuel or oil / chemical spill and turning off equipment or other sources of noise or dust.

Once the situation has been rectified, full details the incident and remedial actions undertaken will be provided to the City Council and relevant authorities and recorded appropriately.

Appropriate measures to prevent a recurrence of such incidents will be developed in consultation with these authorities.

12 INSPECTIONS AND MONITORING

The environmental and waste management performance of the contractor will be monitored through site inspections. Monitoring will be carried out in accordance with the requirements of the EIAR so that construction activities are undertaken in a manner that does not give rise to significant negative effects. Suitable monitoring programmes will need to be developed, implemented, documented, and assessed in accordance with the measures outlined in the detailed CEMP and EIAR.

The results of all environmental monitoring activities will be reviewed by the Site Environmental and Waste Manager on an ongoing basis to enable trends to be identified and corrective actions to be implemented as necessary.

Routine inspections of construction activities will be carried out by the Site Environmental and Waste Manager on a daily basis to ensure all necessary environmental and waste management measures relevant to the construction activities are being effectively implemented by construction staff. Detailed inspections should be carried out weekly which would be appropriately documented by the Environmental and Waste Manager. The inspection routine should include:

- Summary of compliance/non-compliance with the detailed CEMP
- Results and interpretation of monitoring programmes
- Key issues noted during inspections.
- Summary record of non-conformities, incidents and corrective actions
- Summary of environmental complaints and queries received in relation to environmental matters; and
- Summary record of environmental training undertaken by staff.

APPENDIX 1: SITE LAYOUT

- Appendix 2-2 – Phase 1 ‘The Farm’ Proposed Site Layout – prepared by Shipsey Barry Architects

FARM SCHEME BUILDINGS:A,B,C,D,E

140 APARTMENTS	NO.	%
1 BEDROOM AP.	70	50 %
2 BEDROOMS AP. 3P	12	8.6 %
2 BEDROOM AP. 4P	57	40.7%
3 BEDROOMS AP.	1	0.7 %
TOTAL NO.	140	100 %
DUAL ASPECT	57	40.7%
NO. OF UNITS WITH AREA 10% GREATER THAN REQUIRED	35	25.0%
TOTAL COMMUNAL AMENITY AREA	2,563 sqm	
PUBLIC OPEN SPACE		
PUBLIC PARK *(outside of developable area)*	24,520 sqm	
PUBLIC PLAZA AND LAWN *(inside of developable area)*	1,555 sqm	
PARKING SPACES	54	38.0%
CRECHE DROP OFF	4	
MOTORBIKE SPACES	5	
RESIDENT'S BIKE SPACES	230	
VISITOR'S BIKE SPACES	100	

LEGEND

- SITE BOUNDARY SITE AREA: 50 508 sqm DEVELOPABLE AREA: 14 688 sqm
- OTHER LANDS UNDER APPLICANT'S CONTROL
- LOCATION OF SITE NOTICES
- LOCATION OF WAYLEAVE
- PRIVATE WAYLEAVE IN FAVOUR OF APPLICANT
- (A) (B) EXISTING FARM BUILDINGS TO BE PRESERVED AND REFURBISHED
- (C) APARTMENT BLOCK C -34 APARTMENTS
- (D) APARTMENT BLOCK D -58 APARTMENTS
- (E) APARTMENT BLOCK E -48 APARTMENTS
- COMMUNAL AMENITY AREA
- EXISTING STRUCTURE TO BE DEMOLISHED
- PROPOSED TREES
- EXISTING TREES TO BE RETAINED
- ROOT PROTECTION ZONE
- EXISTING TREES TO BE REMOVED

1 PROPOSED SITE LAYOUT PLAN
1:500 @ A0

SITE LAYOUT PLAN

SHIPSEYBARRY
HOUSE 2020/19

PROJECT:	PHASE 2- THE FARM-BESSBOROUGH
DRAWING DESCRIPTION:	SITE LAYOUT PLAN
CLIENT:	ESTUARY VIEW ENT. 2020 LTD.
SCALE:	1:500 @ A0
DATE:	04.2021
DRAWN BY:	AIM
APPROVED BY:	GB
DRAWING NO:	SB-2020-107-200

1:500@A0

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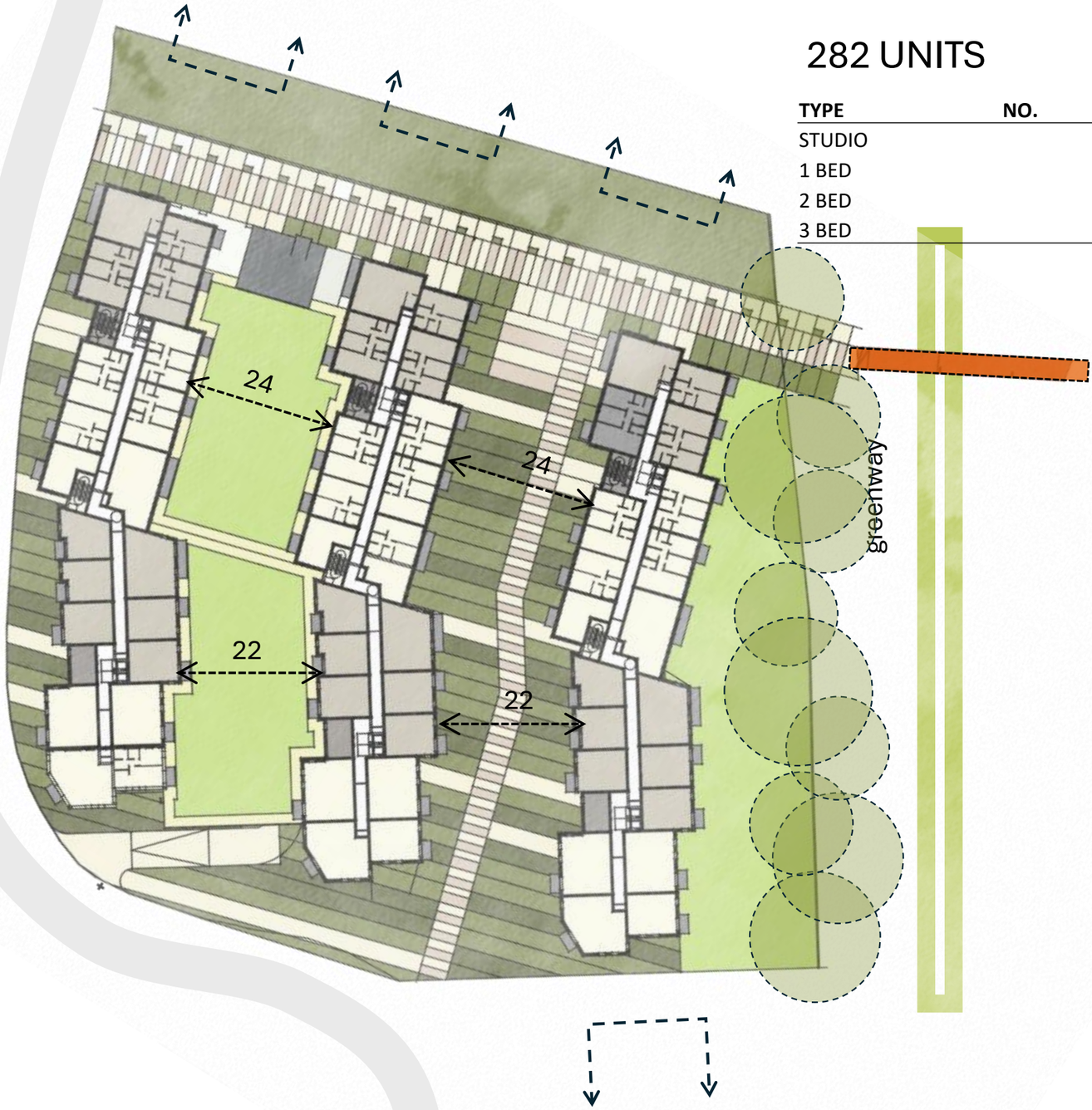
- Appendix 2-3 – Indicative S247 Phase 2 'The Meadows' Proposed Site Layout – prepared by Shipsey Barry Architects

MIX



282 UNITS

TYPE	NO.	%
STUDIO	4	1%
1 BED	135	48%
2 BED	129	46%
3 BED	14	5%
	282	100%

TYPICAL FLOOR PLAN

- Appendix 2-4 - Phase 1 ‘The Farm’ Primary Planting Plan prepared by Ilsa Rutgers Landscape Architecture

ORIGINAL ESTATE ENTRANCE

REINSTATE HISTORICAL PATH ALONG THE NORTHERN BOUNDARY

NEW NATIVE TREES TO REPLACE TREES PROPOSED FOR REMOVAL

EPOXY BOUND GRAVEL PATH

RETAIN EXISTING STONE BOUNDARY WALL

RETAIN EXISTING TREES

ENTRANCE GATE

SACRED HEART CONVENT

NEW LANDSCAPED CAR PARK

NEW STREET TREES

Hostel (SHB)

NEW VEHICULAR ENTRANCE

RED DASHED CIRCLES INDICATE EXISTING TREES TO BE REMOVED. REFER TO ARBORICULTURAL REPORT.

CRECHE OUTDOOR PLAY

CRECHE

EXISTING PARK
Remove existing paths dotted in red

REMOVE ALL EXISTING PATHS /STRUCTURES IN THE PARK AND CREATE MORE AREAS OF ROUGH GRASS / MEADOW

GATE

LOUNGE

WORKSPACE

EXISTING HISTORIC FARM BUILDINGS TO BE PRESERVED AND REFURBISHED

RESIDENTIAL AMENITY

RETAIN EXISTING TREE IN NEW PLANTER

LANDSCAPED PUBLIC SPACE
(provides right of way to Bessborough Historic Farmyard)

RETAIN EXISTING TREES

RETAIN EXISTING TREES

ORIGINAL ESTATE ENTRANCE ROAD (private)

NEW TREES

GATE

GATE

BESSBOROUGH HISTORIC FARMYARD

REPLACE EXISTING FENCE WITH NEW 1.0m PAINTED STEEL RAILINGS

PROPOSED MEMORIAL BENCH CENTRED ON EVERGREEN MAGNOLIA TREE

EXISTING ENTRANCE

RESIDENTIAL AMENITY

RED DASHED CIRCLES INDICATE EXISTING TREES TO BE REMOVED. REFER TO ARBORICULTURAL REPORT.

RESIDENTIAL AMENITY

REMOVE EXISTNG PLAYGROUND

NEW LANDSCAPED CAR PARK

SUBSTATION

NEW TREES

NEW TREES

RED DASHED CIRCLES INDICATE EXISTING TREES TO BE REMOVED. REFER TO ARBORICULTURAL REPORT.

EXISTING ENTRANCE

NEW TREES

TREE LEGEND

Symbol	Species and size	within park	urban context
Qr	*Quercus robur* Dair ghallda / Common Oak 20-22 cm girth, 2m clear stem, 4-5m tall, rootball	19	
Qp	*Quercus petraea* Dair ghaelach/ Sessile Oak 20-22 cm girth, 2m clear stem, 4-5m tall, rootball	9	
Ps	*Pinus sylvestris* Péine albanach / Scot's Pine 16-18 cm girth, 2m clear stem, 3-4m tall, rootball	16	
Betpe	*Betua pendula* Beith gheal / Silver Birch 16-18 cm girth, 2m clear stem, 4-5 m tall, rootball		4
Betpub	*Betua pubescens* Beith chlúmhach / Downy Birch 16-18 cm girth, 2m clear stem, 4-5 m tall, rootball		4
Au	*Arbutus unedo* Caithne / Strawberry tree 12-14 cm girth, multistemmed, rootball, 2.5-3m tall	2	
Fs	*Fagus sylvatica* Beech 18-20 cm girth, 2m clear stem, 4-5m tall, rootball	7	
Qi	*Quercus ilex* Holm Oak (evergreen) 18 -22 cm girth, 2m clear stem, 4-5m tall, rootball	3	
Tbd	*Taxus baccata 'fastigiata'* Irish Yew (evergreen) 16 -18 cm girth, 3-4m tall, container	8	
Qpa	*Quercus palustris* Pin Oak 18-20 cm girth, 2m clear stem, 4-5m tall, rootball		13
Cb	*Carpinus betulus* European Hornbeam 18-20 cm girth, 2m clear stem, 4-5m tall, rootball		4
Sa	*Sorbus aucuparia* Moustain Ash 18-20 cm girth, 2m clear stem, 4-5m tall, rootball		13
Pa	*Pyrus avium* Native wild cherry 16-18 cm girth, 2m clear stem, 3-4m tall, container		15
Ms	*Magnolia x soulangeana 'Alba Superba'* Evergreen Magnolia 20-24 cm girth, 2m clear stem, 4-5m tall, container	1	

Symbol	Species and size
Tag No.	Existing Trees to be protected during construction if within the hoarded site. Refer to Arboriculturist's Report NOTE: Retained trees to be protected in strict accordance with BS 5837 (2012)
	Existing Tree to be removed as part of proposed works associated with this development. Refer to Aboriculturist's Report to the number and species of trees to be removed.
	Rough grass
	EVERGREEN HEDGING Taxus baccata (Yew) for medium height Buxus semprevirons for low height

north

irla

■ ARCHITECTURAL DESIGN ■ LANDSCAPE DESIGN

Revision	Date	Description	By
P.0	12.12.2025	Issued for PLANNING APPLICATION	IR

Drawing Status: **planning application**

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Project:	BESSBOROUGH RESIDENTIAL - 'The Farm'
Drawing:	LANDSCAPE DESIGN - Primary Planting Plan
Date:	September 2025
Drawn by:	IR
Scale:	1:500@A1 / 1:1000@A3
Client:	Estuary View Enterprises 2020 Ltd.
Job No.	250908
Drg No.	2500
Rev.	P.0

- Appendix 2-5 - Phase 1 ‘The Farm’ Services Infrastructure Report prepared the Egis Group, Consultant Engineers

Document Information

GENERAL INFORMATION

Client:	Estuary View Enterprises 2020 Ltd
Project Title:	Phase 1 LRD Development 'The Farm' Bessborough, Ballinure, Cork
Report Title:	Services Infrastructure Report
File Name:	25629-EEI-XX-XX-RP-CE-10000_Services_Infrastructure_Report-P00

HISTORY OF CHANGES

DOCUMENT REVISION			DOCUMENT VERIFICATION			
Issue Date (DD/MM/YY)	Revision	Suitability	Author(s)	Reviewer(s)	Approver(s)	Peer Review (or N/A)
18/09/2025	P01	S4	POKL	TF	TF	
25/11/2025	P02	S4	POKL	TF	TF	

Phase 1 LRD Development 'The Farm' Bessborough, Ballinure, Cork

Services Infrastructure Report

19 September 2025

Formerly JB Barry & Partners who became part of Egis in 2023.

1 INTRODUCTION

This report is prepared in support of an LRD planning application by Estuary View Enterprises 2020 Ltd for a proposed residential development on a circa 4.28 hectare (ha) site at 'The Farm', Bessborough, Ballinure, Blackrock, Cork. The proposed development consists of 140 apartments and associated ancillary site works.

The South Ring Road (N40) is located approximately 250m from the southern boundary of the proposed development. The boundaries of the site are formed by the buildings, outbuildings, roads and open spaces of the overall Bessborough complex. The site slopes gently from north to south, with ground levels falling from approximately 18.00 m OD in the north-east of the site to 10.50 m OD in the south-west of the site.

The proposed development provides for the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structures and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: Block C (9 no. 1-bedroom and 25 no. 2-bedroom over 3 storeys), Block D (34 no. 1-bedroom & 24 no. 2-bedroom over 3-4 storeys), Block E (27 no. 1-bedroom, 20 no. 2-bedroom & 1 no. 3-bedroom over 4-5 storeys). It is proposed to use retained Block A and Block B for resident amenities which include home workspace, library, lounge and function space.

The proposal includes for new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessborough Road.

The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessborough Road.

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FIGURE 1-1: LOCATION OF PROPOSED DEVELOPMENT

This report outlines the proposed means of servicing the development with roads/access/parking along with wastewater collection and disposal, stormwater management and disposal and water supply infrastructure.

This Services Infrastructure Report should be read in conjunction with the engineering drawings which illustrate and detail the servicing proposals and with the submissions by other members of the Applicant's design team.

2 ROADS/TRAFFIC/TRANSPORT

A detailed Traffic and Transport Assessment has been prepared in support of the LRD application, and is included within the planning pack. Please refer to this document for further details.

It concludes that traffic from the proposed development will not have a significant impact on existing and proposed traffic in the vicinity of the development, and the site is very well placed to encourage the use of sustainable modes of transport.

3 WASTEWATER COLLECTION AND DISPOSAL

3.1 Exiting Wastewater Network

Cork City Council / Uisce Éireann drainage records show that there is an existing 375/450mmØ foul sewer located to the west of lands, outside of the boundary of the Applicant's lands, which runs north to south and discharges to the Bessborough Wastewater Pumping Station (WWPS). From the WWPS a 350mmØ rising main heads east crossing through the greenfield area in the ownership of the Applicant before turning north along the Passage West Greenway, see Appendix 1.

A feasibility study of the local area has revealed that there is an existing a 150mmØ foul sewer in the road adjacent to the eastern boundary of the site which runs north to south before turning in a westerly direction and connecting to the WWPS described above, see as-built drawing in Appendix 1. This sewer was constructed under planning reference 03/27028.

3.2 Pre-Connection Enquiry Stage

Uisce Éireann have issued a Confirmation of Feasibility (COF) stating that the site could be serviced by its wastewater infrastructure network. This COF is included in Appendix 2.

Uisce Éireann advised that the proposed connection should be made directly to the WWPS, via a new inlet sewer. We are advised that there is sufficient capacity in that WWPS to serve the proposed development.

3.3 Design Stage

The design of the proposed wastewater network will be carried out in accordance with Uisce Éireann's Code of Practice for Wastewater Infrastructure. A Design Submission has been submitted to Uisce Éireann, who have issued a Statement of Design Acceptance in return (see Appendix 3).

Wastewater collection within the proposed development will be via a network of gravity sewers. The wastewater flows will be collected and conveyed in in a westerly direction, from the western boundary of the proposed development site and will connect directly to the WWPS. The final connection from the western edge of the lands to the existing WWPS will be undertaken using directional-drilling techniques to ensure that the existing western boundary wall to the lands will remain undisturbed during construction.

The wastewater collection system will be designed and will be constructed in accordance with Uisce Éireann's Code of Practice for Wastewater Infrastructure to ensure self-cleansing velocities will be achieved on all pipe runs. The pipes proposed as part of this design have been sized in accordance with Table 4.1 below, an extract from IW-CDS-5030-03 (Revision 2 2020).

Manholes will be constructed on all pipe-runs at changes in sewer direction, changes in gradients, at significant sewer connections and at a maximum spacing of 90m on all straight sections of pipework. The gravity wastewater sewers will be designed using MicroDrainage design software. The foul sewer layout plans are presented on Drawing No 25629-EEI-UD-XX-DR-CE-04000.

TABLE 3-1 – FOUL SEWER SIZE/GRADIENT CRITERIA

No. of Dwellings	Pipe Diameter	Minimum Gradient
2 to 9	150mm (or 225mm)	1:60
10 to 20		1:150
21 to 210	225mm	1:200
211 to 250		1:150
250 to 330		1:100
331 to 450	300mm	1:300
451 to 565		1:200
566 to 655		1:150
656 to 830		1:100

3.4 Loading Calculations

The design flows are calculated using the Uisce Éireann Code of Practice for Wastewater Infrastructure Appendix B which is summarised in Tables 3.2 and 3.3 below.

Use	No. of Units	Occupancy Rate	Population (P)	Loading (G) (l/day/person)	Daily Loading (PxG) (l/day)	Daily Loading (l/s)
Residential	140	2.7/ Unit	378	150	56,700	
				Infiltration (I) 10% (COP Appendix B – Table 2.4)	5,670	
				Dry Weather Flow (PG +I)	62,370	
				Residential Peaking Factor (Pf_{Dom}) (COP Appendix B – Table 2.5)	6	
				Design Foul Flow [Pf_{Dom} x PG + I]	345,870	4.003
				Misconnection Allowance (SW) 3% (COP Appendix B - Section 2.2.10)		0.338
				Design Flow		4.341

TABLE 3-2: FOUL FLOW CALCULATIONS FOR RESIDENTIAL DEVELOPMENT

4 STORMWATER COLLECTION & DISPOSAL

4.1 Existing Stormwater Network

Cork City Council drainage records indicate there is an existing 1350mmØ trunk storm sewer located approximately 200m to the west of the site, outside the boundary of the Applicant's lands, which runs in a north-south direction before crossing under the South Ring Road (N40) and discharging to the Douglas Estuary.

A feasibility study of the local area has revealed that there is an existing 225mmØ storm sewer in the road adjacent to the eastern boundary of the site (increasing downstream to a 450mm/750mmØ), which runs north to south before turning in a westerly direction and connecting to the 1350mmØ storm sewer described above, see as-built drawing in Appendix 7. This sewer was constructed under planning reference 03/27028.

4.2 Proposed Development Surface Water Management Systems

The proposed surface water management system will, as much as is feasible, be designed in accordance with the principles of Sustainable Drainage Systems (SuDS) as embodied in the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS).

The GDSDS addresses the issue of sustainability by requiring designs to comply with a set of drainage criteria which aim to minimise the impact of urbanisation by replicating the runoff characteristics of a greenfield site. The criteria provide a consistent approach to addressing both rate and volume of runoff as well as ensuring the environment is protected from pollution that is washed off roads and buildings. These drainage design criteria are as follows:

- Criterion 1 - River Water Quality Protection
- Criterion 2 - River Regime Protection
- Criterion 3 - Flood Risk Assessment
- Criterion 4 - River Flood Protection

The requirements of SuDS are typically addressed by provision of the following:

- Interception storage
- Treatment storage (not required if interception storage is provided)
- Attenuation storage
- Long term storage (not required if growth factors are not applied to QBAR when designing attenuation storage, i.e., extended attenuation storage design)

Both interception and attenuation storage will be provided to fully control surface water runoff from the proposed development. This will be achieved by a combination of source control interception (tree pits, bioretention areas, green roofs, detention basin) along with attenuation storage by means of a precast concrete storage tank.

The breakdown of the relevant areas to be drained are as follows:

Use	Floor Area (m^2)	Occupancy Rate	Population (P)	Loading (G) (l/day/person)	Daily Loading (PxG) (l/day)	Daily Loading (l/s)
Creche	242	31*	31	90	2,790	
Café	65	1 per 20m^2	3	50	150	
		1 per 5m^2	13	12	156	
Communal Workspace	180	24**	24	100	2,400	
Gym	108	1 per 5m^2	22	50	1,100	
Lounge	85	30**	30	15	450	
Function Room	70	30**	30	60	1,800	
				Total	8,846	
				Total (Based on 12 Hour Day)	4,423	
				Infiltration (I) 10% (COP Appendix B – Table 2.4)	442	
				Dry Weather Flow (l/s) PG +I	4,865	
				Commercial Peaking Factor ($Pf_{Dom, Ind}$) (COP Appendix B – Table 2.7)	4.5	
				Design Foul Flow ($Pf_{Dom, Ind}$ x PG) + I (l/s)	20,346	0.235
				Misconnection Allowance (SW) 2% (COP Appendix B – Table 2.10)		0.233
				Design Flow (l/s)		0.468

TABLE 3-3: FOUL FLOW CALCULATIONS FOR COMMERCIAL DEVELOPMENT

The combined residential and commercial design flow is 4.8l/s. This figure has been proportionally applied as a base flow to the heads of the wastewater sewer runs within the MicroDrainage design model, see Appendix 4 for the results.

5 WATER SUPPLY

5.1 Existing Watermain Network

Cork City Council watermain records show there is an existing 150mmØ watermain in the roadway adjacent to the eastern boundary of the site, an existing 300mmØ watermain in the roadway to the north of the site and a 200mmØ watermain to the south. There is also an existing 1200mmØ trunk watermain running through the greenfield area in the ownership of the Applicant to the south of development site, see Appendix 6.

5.2 Pre-Connection Enquiry Stage

Uisce Éireann have issued a Confirmation of Feasibility (COF) stating that the site could be serviced by its water infrastructure network. This COF is included in Appendix 2.

Uisce Éireann have advised that the connection is to be made to the existing 300mmØ ductile iron watermain in the roadway to the north of the site.

5.3 Design Stage

The designs for water supply infrastructure within the proposed development will be carried out in accordance with Uisce Éireann's Code of Practice for Wastewater Infrastructure. A Design Submission has been submitted to Uisce Éireann, who have issued a Statement of Design Acceptance in return (see Appendix 3).

To serve the development a 150mmØ watermain will be connected to the existing 300mmØ ductile iron watermain in the roadway to the north of the site. 40mmØ spurs will be taken off the proposed 150mmØ watermain and will feed a local cold water storage tank / booster station within the plant room of each apartment block. A bulk flow meter will be provided on each of the apartment block supply lines. From the plant rooms each of the residential and commercial units will be fed and metered individually.

Fire hydrants will be provided such that each building will be within 46m of a hydrant and these hydrants will be fully accessible to the fire service. Apartment buildings will be subject to Fire Safety Certificate applications and the provision of appropriate water supply for firefighting will be addressed in these applications.

The proposed water supply layout plans are shown on Drawing No. 25629-EEI-UW-XX-DR-CE-03000.

5.4 Loading Calculations

Water demand for the development is determined in accordance with Uisce Éireann Code of Practice for Water Infrastructure.

Per-capita consumption = 150 litres/person/day

Average day / peak week demand (ADPWD) = 1.25 x ADDD

Peak Water Demand = 5.00 x ADPWD

Use	Floor Area (m^2)	Occupancy Rate	Population (P)	Average Daily Demand (l/day)	Average Daily Demand (l/s)	Average Day/Peak Week Demand (l/s)	Peak Hour Water Demand (l/s)
Residential	140	2.7	378	56,700	0.656	0.82	4.1
						Total	4.1

TABLE 5-1: WATER DEMAND FOR RESIDENTIAL DEVELOPMENT

TABLE 5-3 – SURFACE AREAS

Area Type	Units (ha)
Total Site Area	4.28
Catchment Area	1.48
Green Roof	0.14
Permeable Paving	0.10
Tree Pits/Bioretention Planters	0.02
Impermeable Area (Roofs, Roads)	1.05
Detention basin & Open Space without Formal Drainage	0.17
Total Drained Area	1.31

A detailed breakdown of the drainage strategy is provided within the Drainage Impact Assessment which is provided separately within the planning pack.

6 FLOOD RISK

A detailed and site-specific Flood Risk Assessment was carried out for the previous SHD planning application.

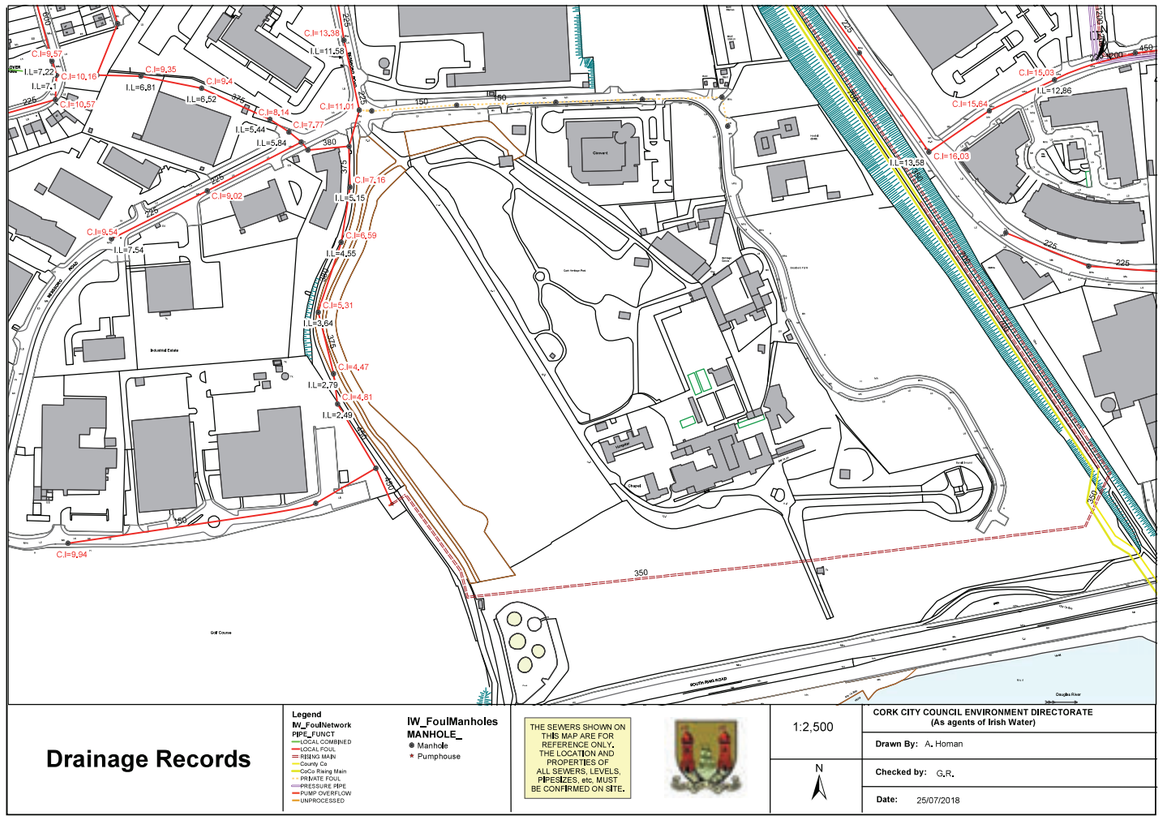
The situation with respect to flood risk has not changed in the period since this previous assessment and this assessment report has been updated to reflect the new LRD application, and the updated report is included separately within the planning pack.

In summary the proposed development is in a Flood Zone C area where the risk of flooding is lowest. Also, the proposed development includes for the management of surface water runoff from the proposed development to ensure that the development will not increase the risk of flooding downstream of the site.

Use	Floor Area (m^2)	Occupancy Rate	Population (P)	Average Daily Demand (l/day)	Average Daily Demand (l/s)	Average Day/Peak Week Demand (l/s)	Peak Hour Water Demand (l/s)
Creche	242	31	31	4,650	0.054	0.068	0.340
Café	65	1 per 20m^2	3	450	0.027	0.035	0.175
		1 per 5m^2	13	1,950			
Communal Workspace	180	24	24	3,600	0.042	0.053	0.265
Gym	108	1 per 5m2	22	3,300	0.038	0.048	0.240
Lounge	85	30	30	4,500	0.052	0.065	0.325
Function Room	70	30	30	4,500	0.052	0.065	0.325
						Total	1.67
						Total (Based on 12 Hour Day)	0.835

TABLE 5-2: WATER DEMAND FOR COMMERCIAL DEVELOPMENT

APPENDIX 1: CORK CITY COUNCIL - EXISTING WASTEWATER NETWORK



CONFIRMATION OF FEASIBILITY

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Little Island
Cork
T45KH74

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Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

4 November 2025

Our Ref: CDS25006213 Pre-Connection Enquiry
The Farm, Bessborough, Blackrock, Cork City

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 150 unit(s) at The Farm, Bessborough, Blackrock, Cork City, (the **Development)**.

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection**
  - Feasible without infrastructure upgrade by Uisce Éireann
  - The proposed 150 mm diameter connection point shall be to the public water network on the existing 300 mm water main to the North of the development. The confirmation of feasibility does not extend to your fire flow requirements. Uisce Éireann cannot guarantee that the flow rates and residual pressures will meet the requirements of the Fire Authority.
- **Wastewater Connection**
  - Feasible without infrastructure upgrade by Uisce Éireann
  - The Connection point for the proposed development shall be to, or as near as possible to the inlet manhole to the Existing Bessboro Wastewater Pump Station. It will be the developer's responsibility to ensure that any relevant permission is in place to lay any sewer infrastructure in private lands. The Developer will be required to provide all relevant wayleaves.

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
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Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363.

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Section A - What is important to know?

What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Uisce Éireann's network(s). • Before the Development can connect to Uisce Éireann's network(s), you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Uisce Éireann connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Uisce Éireann's network(s), including works in the public space, must be carried out by Uisce Éireann*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • **What to do?** - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • **What to do?** - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Uisce Éireann's network(s)?	• Requests for maps showing Uisce Éireann's network(s) can be submitted to: datarequests@water.ie

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

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As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Uisce Éireann's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann's network(s). This is not a connection offer and capacity in Uisce Éireann's network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit **www.water.ie/connections, email** newconnections@water.ie or contact 1800 278 278**.**

Yours sincerely,

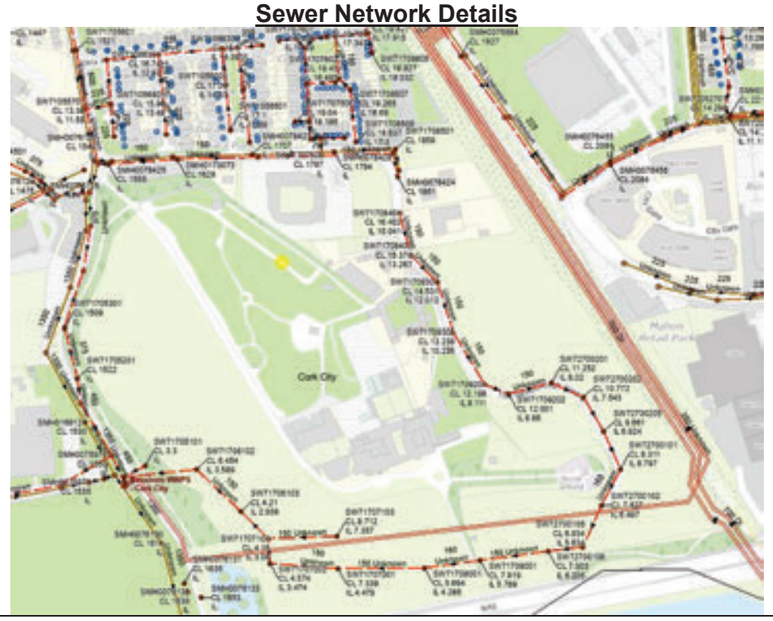
Dermot Phelan
Connections Delivery Manager

Section B – Details of Uisce Éireann's Network(s)

The map included below outlines the current Uisce Éireann infrastructure adjacent the Development: To access Uisce Éireann Maps email datarequests@water.ie

Water Network Details

Sewer Network Details



What are the design requirements for the connection(s)?	• The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with ***the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

CONFIRMATION OF FEASIBILITY

Ray Sheehan
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3 Eastgate Road, Eastgate Business Park
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4 November 2025

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Cathair Chorcaí

Uisce Éireann
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South City
Delivery Office
Cork City

www.water.ie

Our Ref: CDS25006228 Pre-Connection Enquiry
The Meadows, Bessborough, Blackrock, Cork City

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 300 unit(s) at The Meadows, Bessborough, Blackrock, Cork City, (the **Development)**.

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible Subject to upgrades

  Water Network Upgrades are required in order to facilitate this development. An upsizing of approx. 150 meters of existing 150 mm diameter watermain to 200 mm diameter network would need to be facilitated, with this upgrade to be funded by the developer. The proposed 150 mm diameter connection to the public water network should be onto the upsized 200 mm water main to the West of the development. The confirmation of feasibility does not extend to your fire flow requirements. Uisce Éireann cannot guarantee that the flow rates and residual pressures will meet the requirements of the Fire Authority.

- **Wastewater Connection** - Feasible without infrastructure upgrade by Uisce Éireann

  The Connection point for the proposed development shall be to the new and proposed infrastructure that shall be put in place to serve the proposed adjacent development known as “The Farm”. Alternatively, and pending phasing requirements, the Connection point for the proposed development shall be to, or as near as possible to the inlet manhole to the Existing Bessboro Wastewater Pump Station. All relevant Quality Assurances, Wayleaves, Easements, Confirmation of capacity and Permissions would need to be obtained by the Developer.

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
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Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363.

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Note: The information provided on the included maps as to the position of Uisce Éireann’s underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Uisce Éireann.

Whilst every care has been taken in respect of the information on Uisce Éireann’s network(s), Uisce Éireann assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Uisce Éireann’s underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Uisce Éireann’s underground network(s) 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.

Section A - What is important to know?

What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Uisce Éireann's network(s). • Before the Development can connect to Uisce Éireann's network(s), you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Uisce Éireann connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Uisce Éireann's network(s), including works in the public space, must be carried out by Uisce Éireann*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • **What to do?** - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • **What to do?** - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Uisce Éireann's network(s)?	• Requests for maps showing Uisce Éireann's network(s) can be submitted to: datarequests@water.ie

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Uisce Éireann's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann's network(s). This is not a connection offer and capacity in Uisce Éireann's network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit **www.water.ie/connections**, **email newconnections@water.ie** or contact 1800 278 278**.**

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

Section B – Details of Uisce Éireann's Network(s)

The map included below outlines the current Uisce Éireann infrastructure adjacent the Development: To access Uisce Éireann Maps email datarequests@water.ie

Water Network Details

Sewer network Details

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What are the design requirements for the connection(s)?	• The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with ***the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

APPENDIX 3: UISCE ÉIREANN – STATEMENT OF DESIGN ACCEPTANCE

Note: The information provided on the included maps as to the position of Uisce Éireann's underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Uisce Éireann.

Whilst every care has been taken in respect of the information on Uisce Éireann's network(s), Uisce Éireann assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Uisce Éireann's underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Uisce Éireann's underground network(s) 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.

Appendix A

Document Title & Revision

- [25629-EEI-UD-XX-DR-CE-04000_Proposed_Drainage_Layout_P02]
- [25629-EEI-UD-XX-DR-CE-04001_Proposed_Drainage_Connection_Locations_P02]
- [25629-EEI-UD-XX-DS-CE-10011_Wastewater_Design_Submission_P01]
- [25629-EEI-UW-XX-DR-CE-03000_Proposed_Watermain_Layout_P01]
- [25629-EEI-XX-XX-DR-CE-02104_Site_Location_Map_(The_Farm)_P01]

Standard Details/Code of Practice Exemption:

Not applicable

*For further information, visit **www.water.ie/connections***

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Uisce Éireann will not, in any way, render Uisce Éireann liable for any elements of the design and/or construction of the Self-Lay Works.

Ray Sheehan
3 Eastgate Road
Eastgate Business Park
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Cork T45KH74

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Delivery Office
Cork City

www.water.ie

21 November 2025

Re: Design Submission for The Farm, Bessborough, Blackrock, Cork, City (the "Development")
(the "Design Submission") / Connection Reference No: CDS25006213

Dear Ray Sheehan,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Uisce Éireann has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before you can connect to our network you must sign a connection agreement with Uisce Éireann. This can be applied for by completing the connection application form at www.water.ie/connections. Uisce Éireann's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU)(https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Uisce Éireann's network(s) (the "**Self-Lay Works**"), as reflected in your Design Submission. Acceptance of the Design Submission by Uisce Éireann does not, in any way, render Uisce Éireann liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Uisce Éireann representative:
Name: Kyle Jackson
Email: kyle.jackson@water.ie

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Uisce Éireann is a designated activity company, limited by shares.
Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363.

APPENDIX 4: MICRODRAINAGE – FOUL SEWER CALCULATIONS

Egis Engineering Ireland Ltd		Page 1
4044 Kingswood Avenue Citywest Business Campus Dublin D24 T6YE	20217 - Bessborough SHD (The Farm) Foul Sewer	
Date 21/11/2025 15:49 File 25629-EEI-XX-XX-CA-CE-04303_Microdrainage-P01.0...	Designed by DOB Checked by	
Innovyze	Network 2020.1.3	

FOUL SEWERAGE DESIGN

Design Criteria for Foul - Main

Pipe Sizes STANDARD Manhole Sizes STANDARD

Industrial Flow (l/s/ha)	0.00	Domestic (l/s/ha)	0.00	Maximum Backdrop Height (m)	4.000
Industrial Peak Flow Factor	0.00	Domestic Peak Flow Factor	6.00	Min Design Depth for Optimisation (m)	1.200
Flow Per Person (l/per/day)	150.00	Add Flow / Climate Change (%)	0	Min Vel for Auto Design only (m/s)	0.75
Persons per House	2.70	Minimum Backdrop Height (m)	0.200	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for Foul - Main

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
F1.000	68.467	2.120	32.3	0.000	0	1.6	1.500	o	225	Pipe/Conduit	
F2.000	25.192	0.420	60.0	0.000	0	0.1	1.500	o	225	Pipe/Conduit	
F1.001	27.040	0.588	46.0	0.000	0	0.0	1.500	o	225	Pipe/Conduit	
F1.002	28.445	0.603	47.2	0.000	0	0.0	1.500	o	225	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	Σ Area (ha)	Σ Base Flow (l/s)	Σ Hse	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
F1.000	15.500	0.000	1.6	0	0.0	22	0.79	2.02	80.5	1.6
F2.000	13.800	0.000	0.1	0	0.0	7	0.26	1.48	59.0	0.1
F1.001	13.380	0.000	1.7	0	0.0	25	0.71	1.69	67.4	1.7
F1.002	12.792	0.000	1.7	0	0.0	25	0.71	1.67	66.5	1.7

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Network Design Table for Foul - Main

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
F1.009	26.235	1.251	21.0	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F1.010	36.829	1.632	22.6	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F1.011	38.614	1.464	26.4	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F1.012	43.328	1.478	29.3	0.000	0	8.8	1.500	o	255	Pipe/Conduit	
F1.013	45.563	0.455	100.1	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F1.014	62.433	2.044	30.5	0.000	0	6.1	1.500	o	255	Pipe/Conduit	
F1.015	19.092	0.475	40.2	0.000	0	0.0	1.500	o	255	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	Σ Area (ha)	Σ Base Flow (l/s)	Σ Hse	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
F1.009	10.395	0.000	4.8	0	0.0	32	1.27	2.73	139.4	4.8
F1.010	9.144	0.000	4.8	0	0.0	33	1.23	2.63	134.3	4.8
F1.011	7.512	0.000	4.8	0	0.0	34	1.17	2.43	124.2	4.8
F1.012	6.048	0.000	13.6	0	0.0	58	1.54	2.31	117.8	13.6
F1.013	4.570	0.000	13.6	0	0.0	80	0.99	1.25	63.6	13.6
F1.014	4.115	0.000	19.7	0	0.0	71	1.69	2.26	115.4	19.7
F1.015	2.071	0.000	19.7	0	0.0	77	1.53	1.97	100.6	19.7

Free Flowing Outfall Details for Foul - Main

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
F1.015	F.A33	3.800	1.596	0.000	0	0

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Network Design Table for Foul - Main

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
F3.000	30.656	0.511	60.0	0.000	0	0.1	1.500	o	255	Pipe/Conduit	
F1.003	64.774	0.432	149.9	0.000	0	2.0	1.500	o	255	Pipe/Conduit	
F1.004	62.001	0.423	146.6	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F1.005	23.337	0.164	142.3	0.000	0	1.0	1.500	o	255	Pipe/Conduit	
F1.006	23.563	0.195	120.8	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F4.000	17.403	0.290	60.0	0.000	0	0.0	1.500	o	225	Pipe/Conduit	
F4.001	12.128	0.243	50.0	0.000	0	0.0	1.500	o	225	Pipe/Conduit	
F4.002	9.495	0.462	20.5	0.000	0	0.0	1.500	o	225	Pipe/Conduit	
F1.007	7.397	0.200	37.0	0.000	0	0.0	1.500	o	255	Pipe/Conduit	
F1.008	12.727	0.350	36.4	0.000	0	0.0	1.500	o	255	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	Σ Area (ha)	Σ Base Flow (l/s)	Σ Hse	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
F3.000	12.700	0.000	0.1	0	0.0	7	0.25	1.61	82.3	0.1
F1.003	12.159	0.000	3.8	0	0.0	47	0.59	1.02	51.9	3.8
F1.004	11.727	0.000	3.8	0	0.0	47	0.60	1.03	52.5	3.8
F1.005	11.304	0.000	4.8	0	0.0	52	0.65	1.04	53.3	4.8
F1.006	11.140	0.000	4.8	0	0.0	50	0.69	1.13	57.9	4.8
F4.000	11.970	0.000	0.0	0	0.0	0	0.00	1.48	59.0	0.0
F4.001	11.680	0.000	0.0	0	0.0	0	0.00	1.63	64.6	0.0
F4.002	11.437	0.000	0.0	0	0.0	0	0.00	2.54	101.0	0.0
F1.007	10.945	0.000	4.8	0	0.0	37	1.04	2.05	104.9	4.8
F1.008	10.745	0.000	4.8	0	0.0	37	1.04	2.07	105.8	4.8

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APPENDIX 5: MICRODRAINAGE – FOUL SEWER LONGSECTIONS

Egis Engineering Ireland Ltd		Page 4
4044 Kingswood Avenue Citywest Business Campus Dublin D24 T6YE	20217 - Bessborough SHD (The Farm) Foul Sewer	Micro Drainage
Date 21/11/2025 15:49 File 25629-EEI-XX-XX-CA-CE-04303_Microdrainage-P01.0...	Designed by DOB Checked by	
Innovyze	Network 2020.1.3	

Simulation Criteria for Foul - Main

Volumetric Runoff Coeff	0.750	Manhole Headloss Coeff (Global)	0.500	Inlet Coeffiecient	0.800
Areal Reduction Factor	1.000	Foul Sewage per hectare (l/s)	0.000	Flow per Person per Day (l/per/day)	0.000
Hot Start (mins)	0	Additional Flow - % of Total Flow	0.000	Run Time (mins)	60
Hot Start Level (mm)	0	MADD Factor * 10m³/ha Storage	2.000	Output Interval (mins)	1

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 0 Number of Storage Structures 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model		FSR	M5-60 (mm) 18.800	Cv (Summer)	0.750
Return Period (years)		2	Ratio R 0.250	Cv (Winter)	0.840
Region	Scotland and Ireland	Profile Type	Summer	Storm Duration (mins)	30

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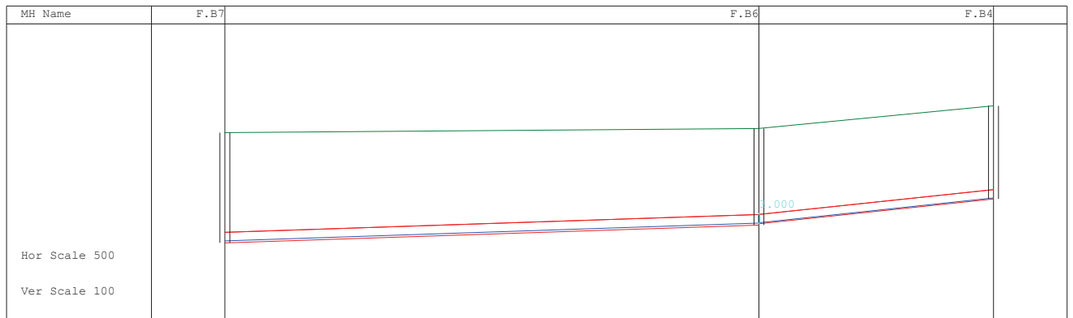

PN		F1.003	F1.002	
Dia (mm)		255	225	
Slope (1:X)		149.9	47.2	
Cover Level (m)	14.400	14.500	15.050	
Invert Level (m)	11.727	12.159 12.189	12.792	
Length (m)		64.774	28.445	

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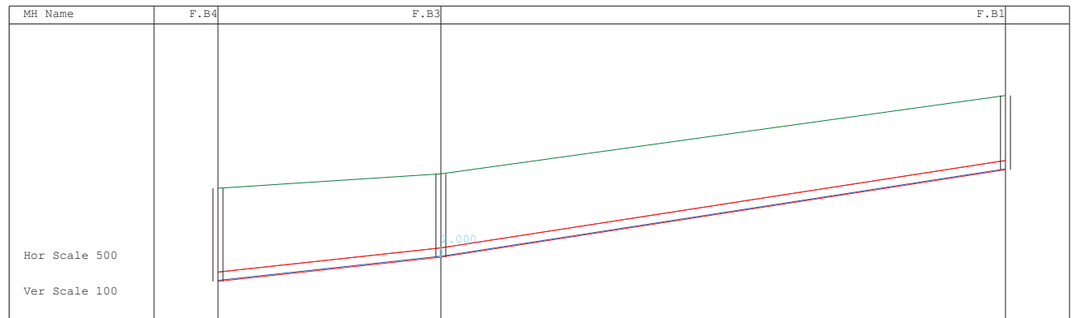

PN		F1.001	F1.000	
Dia (mm)		225	225	
Slope (1:X)		46.0	32.3	
Cover Level (m)	15.050	15.400	17.300	
Invert Level (m)	12.792	13.380 13.380	15.500	
Length (m)		27.040	68.467	

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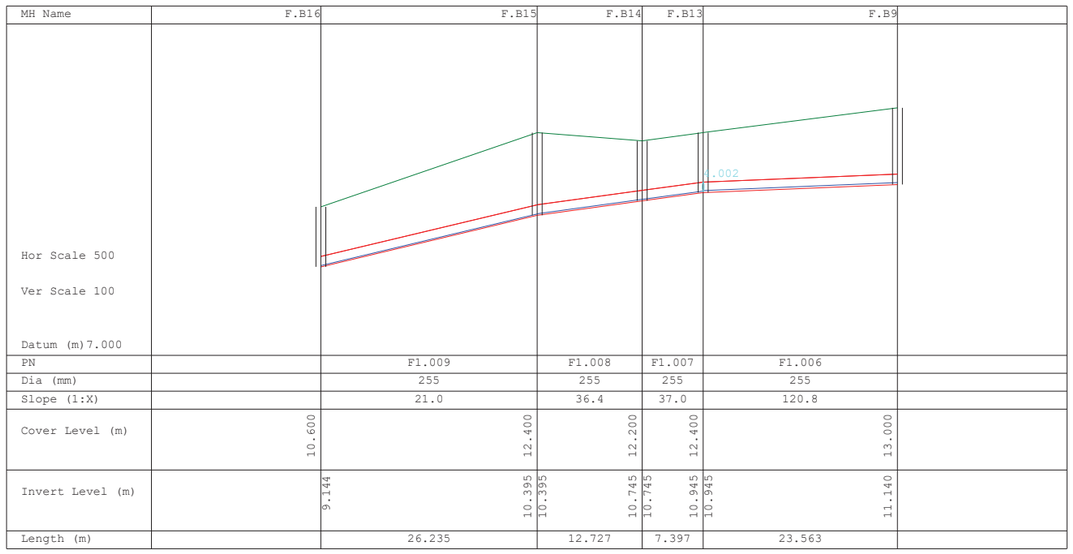

PN		F1.009	F1.008	F1.007	F1.006	
Dia (mm)		255	255	255	255	
Slope (1:X)		21.0	36.4	37.0	120.8	
Cover Level (m)	10.600	12.400	12.200	12.400	13.000	
Invert Level (m)	9.144	10.395 10.395	10.745 10.745	10.945 10.945	11.140	
Length (m)		26.235	12.727	7.397	23.563	

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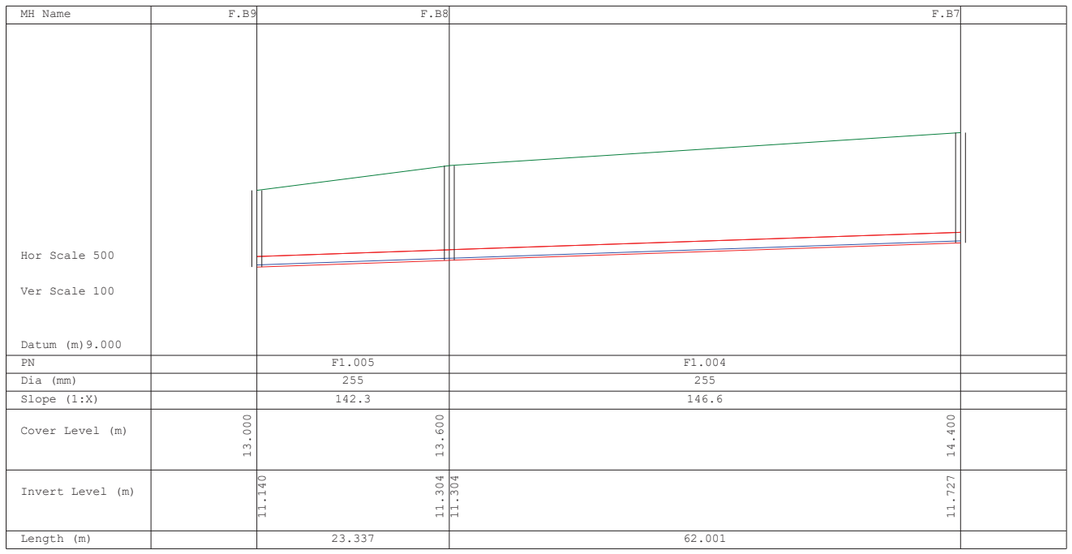

PN		F1.005	F1.004	
Dia (mm)		255	255	
Slope (1:X)		142.3	146.6	
Cover Level (m)	13.000	13.600	14.400	
Invert Level (m)	11.140	11.304 11.304	11.727	
Length (m)		23.337	62.001	

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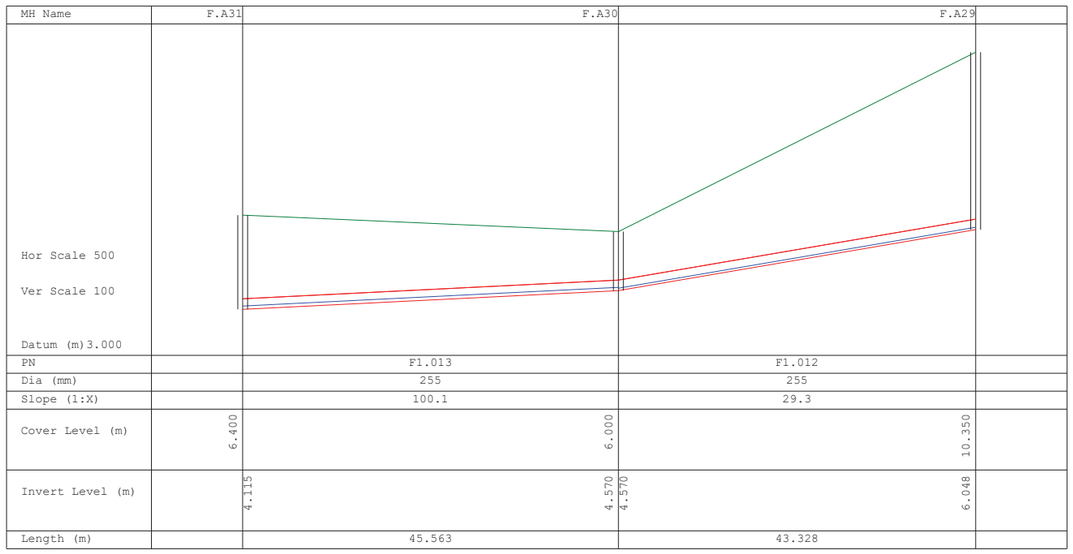

PN		F1.013	F1.012	
Dia (mm)		255	255	
Slope (1:X)		100.1	29.3	
Cover Level (m)	6.400	6.000	10.350	
Invert Level (m)	4.115	4.570	4.570 / 6.048	
Length (m)		45.563	43.328	

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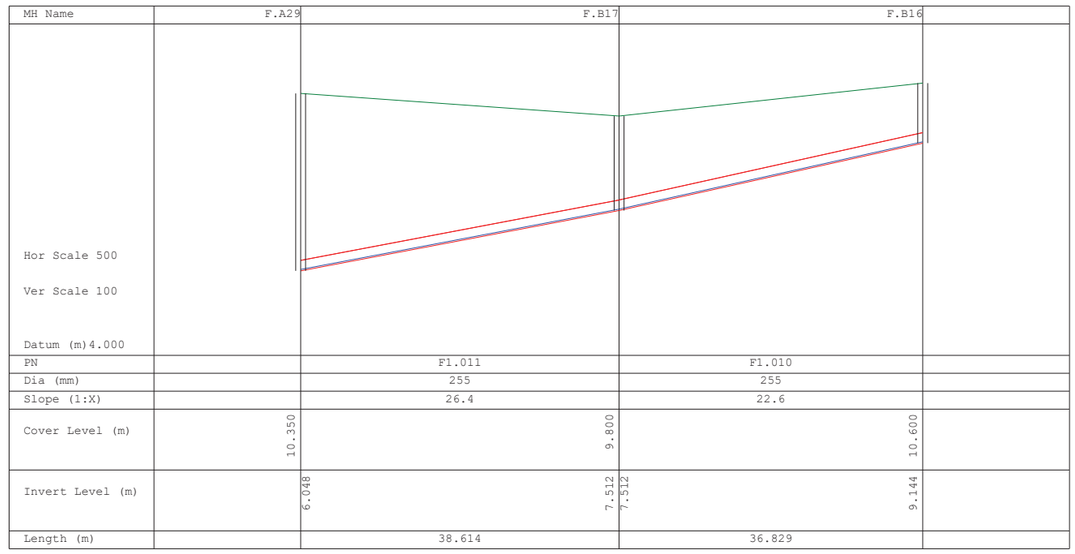

PN		F1.011	F1.010	
Dia (mm)		255	255	
Slope (1:X)		26.4	22.6	
Cover Level (m)	10.350	9.800	10.600	
Invert Level (m)	6.048	7.512 / 7.512	9.144	
Length (m)		38.614	36.829	

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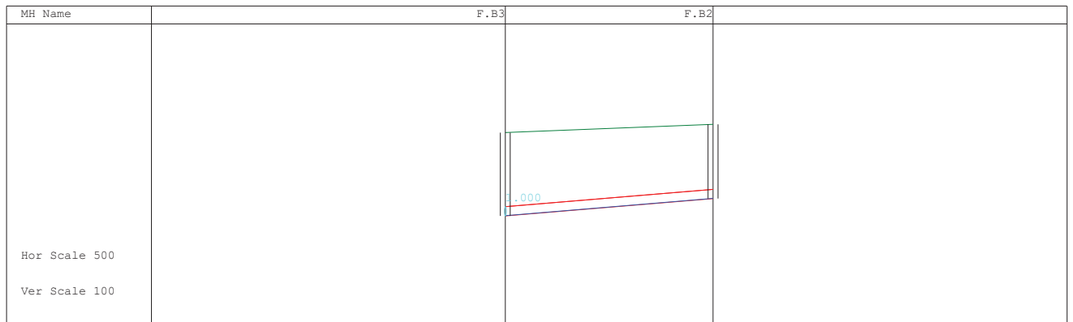

PN		F2.000	
Dia (mm)		225	
Slope (1:X)		60.0	
Cover Level (m)	15.400	15.600	
Invert Level (m)	13.380	13.800	
Length (m)		25.192	

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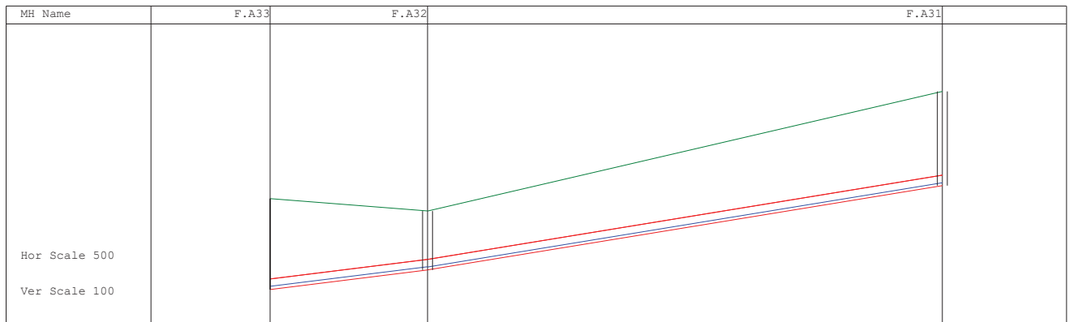

PN		F1.015	F1.014	
Dia (mm)		255	255	
Slope (1:X)		40.2	30.5	
Cover Level (m)	3.800	3.500	6.400	
Invert Level (m)	1.596	2.071	2.071	4.115
Length (m)		19.092	62.433	

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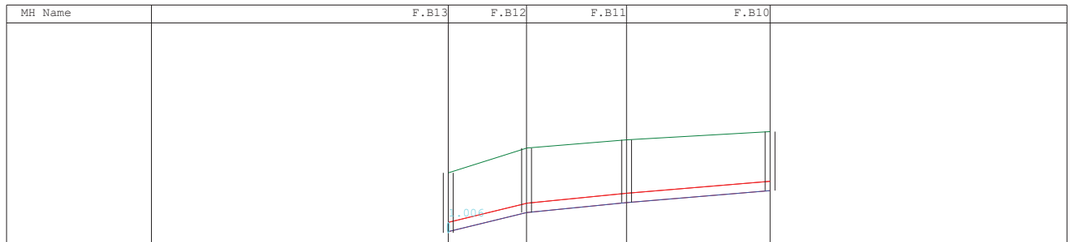

MH Name		F.B13	F.B12	F.B11	F.B10	
Hor Scale 500 Ver Scale 100 Datum (m) 8.000						
PN			F4.002	F4.001	F4.000	
Dia (mm)			225	225	225	
Slope (1:X)			20.5	50.0	60.0	
Cover Level (m)		12.400	13.000	13.200	13.400	
Invert Level (m)			10.975 11.437	11.437 11.680	11.680 11.970	
Length (m)			9.495	12.128	17.403	

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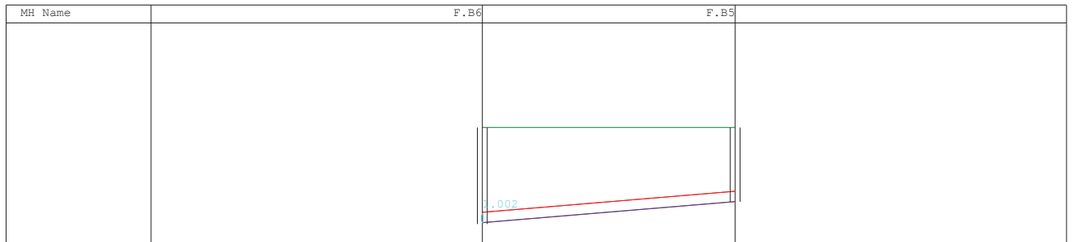

MH Name		F.B6	F.B5	
Hor Scale 500 Ver Scale 100 Datum (m) 9.000				
PN			F3.000	
Dia (mm)			255	
Slope (1:X)			60.0	
Cover Level (m)		14.500	14.500	
Invert Level (m)		12.189	12.700	
Length (m)			30.656	

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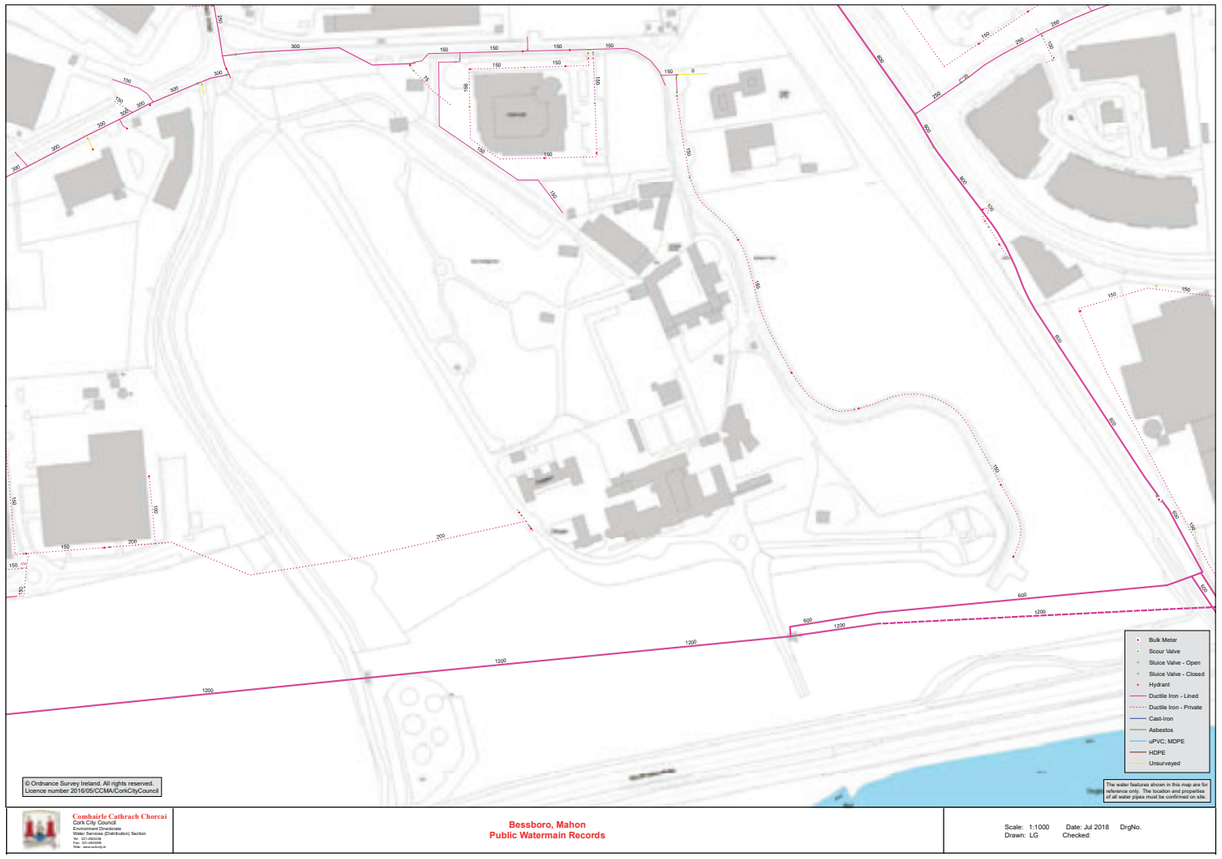
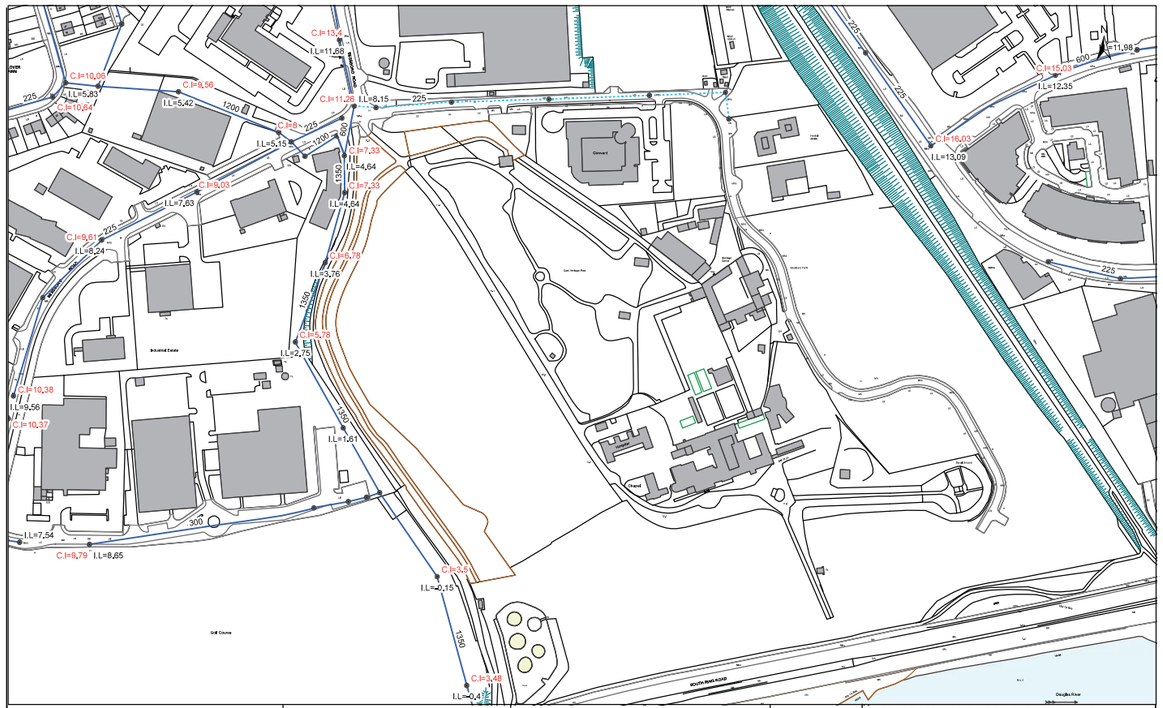
APPENDIX 6: CORK CITY COUNCIL – EXISTING WATERMAIN RECORDS



APPENDIX 7: CORK CITY COUNCIL - EXISTING STORMWATER NETWORK



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- Appendix 2-6 - Phase 1 ‘The Farm’ Climate Impact and Energy Analysis Report prepared the DK Partnership

Document control

DKP project no: M8801
DKP document no: 5000
Project file no: M8801-DKP-5000-DC-XX-XX

Circular	Issue >	1#	1P	2#	3P
Client	Estuary View Enterprises 2020 Ltd				
Architect	Shipseybarry Architects	☑	☑	☑	☑
Planning consultant	HW Planning	☑	☑	☑	☑
Landscape architect	Ilsa Rutgers				

Issue	1P#	2022-01-12	Draft, for review
Issue	1P	2022-02-21	For final issue
Issue	2#	2025-09-22	Revised planning application draft
Issue	3P	2025-09-25	Planning issue

Document issue status ID

Sketch/draft
P Planning
C Concept
D Design
G General information
T Tender
W Works/construction
Z As-build/constructed

Issue	Prepared	Checked	Approved
1#	212	201	201
1P	212	201	201
2#	212	201	201
3P	212	201	201

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The Farm - Bessborough

Proposed Residential Development

CLIMATE IMPACT and ENERGY ANALYSIS REPORT

Bessborough,
Ballinure,
Blackrock,
Co. Cork

Estuary View Enterprises 2020 Ltd

DKP document no
5000

Document issue / status
3 / P

Issue date
2025-09-25

Project file no
M8800-DKP-5000-DC-XX-XX ¦ 3P

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1 Introduction

1.1 **Report purpose**
This report gives information on the projects energy status and carbon dioxide emissions, the statutory compliance requirements and energy/CO2 reduction achievements based on the proposed building / construction specifications.

1.2 **Instruction**
DKPartnership (DKP) have been commissioned by Estuary View Enterprises 2020 Ltd, to carry out the analysis and report for the proposed development at Bessborough, Co. Cork.

1.3 **Development description**
Estuary View Enterprises 2020 Limited, intend to apply for planning permission for a Large-scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork.
The proposed development will consist of: the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structure and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: 70 no. 1-bedroom, 12 no. 2-bedroom (3 person), 57 no. 2-bedroom (4 person) and 1 no. 3-bedroom. Block A and Block B will be retained for resident amenities. The proposal includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas, as well as new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessboro Road. The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road. Part of the proposed development is situated within the curtilage of Bessborough House which is a Protected Structure (Reference: RPS 490). An Environmental Impact Assessment Report and a Natura Impact Statement have been prepared in respect of the proposed development.

1.4 **Policy and building regulation requirements**
The project is subject to the following statutory and policy energy usage and CO2 emission target requirements:
a) TGD Part L 2022
b) Governments Climate Action Plan 2025

1.5 **Approach**
The energy usage and carbon emissions are calculated using the DEAP software and approached using the basic DKP energy reduction steps in the following order:
a) Reduce energy usage
b) Produce energy efficiently
c) Provide on-site energy

Contents

Section		Page
1	Introduction	4
2	Executive summary	5
3	Geographical project overview	9
4	Approach, methodology and calculation results	10
5	Calculation results & conclusion	14
Appendix	A) Average dwelling unit BER certificate	Attached
Appendix	B) Average dwelling unit Part L report	Attached

2.4 **Policy and building regulation compliance overview**

The table below summarises the requirements of Part L for primary energy, CO2 and renewable energy.

Policy/Regulation	Requirement	Achievements (Table 4.4, column 9)
Primary Energy	To achieve a primary energy reduction factor (EPC) of 0.30 or less over the 2021 energy reference building.	An EPC of 0.28 was achieved which is lower than the maximum MEPC of 0.30 and is therefore compliant.
Carbon Dioxide	To achieve carbon dioxide emission reduction factor of 0.35 or less over the 2021 energy reference building.	An CPC of 0.18 was achieved which is significantly lower than the maximum MCPC of 0.35 and is therefore compliant.
Renewable energy	To achieve at least a 20% renewable primary energy equivalent contribution.	An overall contribution of renewable energy of 51% was achieved which is significantly more than the minimum 20% requirement and is therefore compliant.

Table 2.2: Requirements of Part L for primary energy, CO2 and renewable energy.

Government Climate Action Plan 2025

The governments Climate Action Plan 2025 refers to greenhouse gasses (including carbon dioxide) periodical reduction target to be achieved within 2021-2025 of -20% and with the proposed developments CO_2 reductions of 82.5% the proposed development is well in excess of the CAP25 targets.

2.5 **National and global climate impact**

To give some guidance on the environmental impact of the proposed development we have compared the achieved carbon emissions with our national emissions and the global emissions. The tables below shows the current national emissions, the EPA forecasted 2030 emissions, the EPA target emission with proposed additional national reduction measures to combat global carbon emissions and the global equivalents. We note that the carbon emissions for the proposed development year 1 (2023/2024) are higher than following years as a result of the added carbon emissions of the construction element. For the purpose of the carbon emission calculations the carbon factor from the national electricity grid being the source of energy for the development is maintained at the same carbon factor rate through to 2030 whereas in real terms the carbon factor of the national grid would be less in 2030 as a result of the governments target to de-carbonised the grid and therefore the quoted impact would actually be less.

NATIONAL IMPACT

GHG CO2 eq emissions	Unit	National emissions	Development missions	Fraction (%)
Year 2024	Mt-CO2/year	57.50		
Year 2025	Mt-CO2/year	57.95	0.0001279	0.0002206
Year 2030 * target	Mt-CO2/year	58.00	0.0000556	0.0000958
Year 2030 + Measures target	Mt-CO2/year	48.00	0.0000556	0.0001158

Copy of Table 5.4 Mt=Million tonnes i.e.; 55,589 kgCO2/y = 0.0000556 MtCO2/y

We note from the table above that the The Farm, Besborough impact on our national Green House Gas is 0.0002206 % in 2025 and 0.0000958% in 2030 and would be deemed absolutely minimal.

GLOBAL IMPACT

GHG CO2 eq emissions	Unit	National emissions	Development missions	Fraction (%)
Year 2024	Gt-CO2/year	53.80		
Year 2025	Gt-CO2/year	53.50	0.0000001279	0.000000238981
Year 2030 * target	Gt-CO2/year	51.50	0.0000000556	0.000000107940

Copy of Table 5.5 Gt=1000 Million tonnes (Mt)

We note from the table above that the The Farm, Besborough impact on the Global Green House Gas CO2 eq emissions of 0.0000002390 % in 2025 and 0.0000001079% in 2030 and would be deemed under any other situations other than CO2 emissions to be negligible. Irelands current GHG contribution of 0.05795 Gt/y represent 0.11% of the worlds GHG emissions.

2 Executive summary

2.1 **Analysis conducted**

In this report the primary energy usage and carbon dioxide emissions have been analysed to provide an energy efficient building in compliance with the current standards and regulations and national and global climate impact.

2.2 **Policy and building regulations applied**

TGD Part L : Given its time frame currently known the new development's requires compliance (energy) to new Part L 2022. Compliance to the above would deem the development and developments residential units to be "Nearly Zero Energy Buildings" (NZEB) in accordance with the EU Energy performance of Buildings Directive Recast 2013/31/EU.
CAP25 : The governments Climate Action Plans 2025 and in particular the Built Environment sector comprises the residential, public and commercial sectors, and accounted for 11.1% of Ireland's economy-wide operational GHG emissions in 2023 according to the EPA. The residential sector is on track to meet its 2021-2025 sectoral emissions ceiling and is ahead of its 2025 indicative reduction target of -20%.

2.3 **Compliance target and achieved calculation data**

For this report the calculation data provided in the tables below is based on residential Part L 2022 and covers the main compliance criteria; a) Primary energy, b) Carbon dioxide, c) Renewable energy. To comply to Part L the residential unit(s) requires to achieve a primary energy reduction of 70% (0.30 MEPC factor), a carbon emission reduction of 65% (0.35 MCPC factor) and a 20% renewable energy contribution on a reference residential unit. This reference residential unit is identical to the actual proposed residential unit but applies pre-fixed Part L stipulated calculation parameters, U-values, insulation levels, boiler efficiency, controls etc. Whereas all house types at all proposed orientations have been assessed the table below represents the overall development average calculations based on the average house type, volume, floor area, exposed façade area, glazed area, etc .to limit the amount of data for this report. The table details the primary energy, CO2 and renewable energy data of the reference building, the minimum Part L (to-be-achieved) targets and development achievements.

Single average unit: 62.3 m2

Element	Unit	Reference	To be achieved	Rate m2	mp epc/cpc	Achieved	Rate m2	epc/cpc
Primary Energy	kWh/y	10,949	3,285	52.7	0.30	**3,102**	49.8	0.283
Carbon Dioxide	kg/y	2,128	745	12.0	0.35	**397**	6.4	0.187
Renewable energy	kWh/y	-	657	10.5	0.20	**1,566**	25.1	0.505

Copy of Table 5.1

From the table above we note that the proposed building services solutions resulted in a primary energy reduction of 71.7%, a carbon dioxide emission reduction of 81.3% and a renewable primary energy equivalent of 50.5%

BER rating **A2** 49.8 kWh/m2/y

Overall combined development achievements **140** Units

Element	Unit	Reference	To be achieved	Rate m2	mp epc/cpc	Achieved	Rate m2	epc/cpc
Primary Energy	kWh/y	1,532,860	459,858	52.7	0.30	**434,259**	49.79	0.28
Carbon Dioxide	kg/y	297,906	104,267	12.0	0.35	**55,589**	6.37	0.19
Renewable energy	kWh/y	0	91,972	10.5	0.20	**219,301**	25.14	0.51

Copy of Table 5.2

Overall combined differences:

Primary Energy	kWh/y	REDUCTION	**-1,098,601**
Carbon Dioxide	kg/y	REDUCTION	**-242,317**
Renewable energy	kWh/y	CONTRIBUTION	**219,301**

Copy of Table 5.3

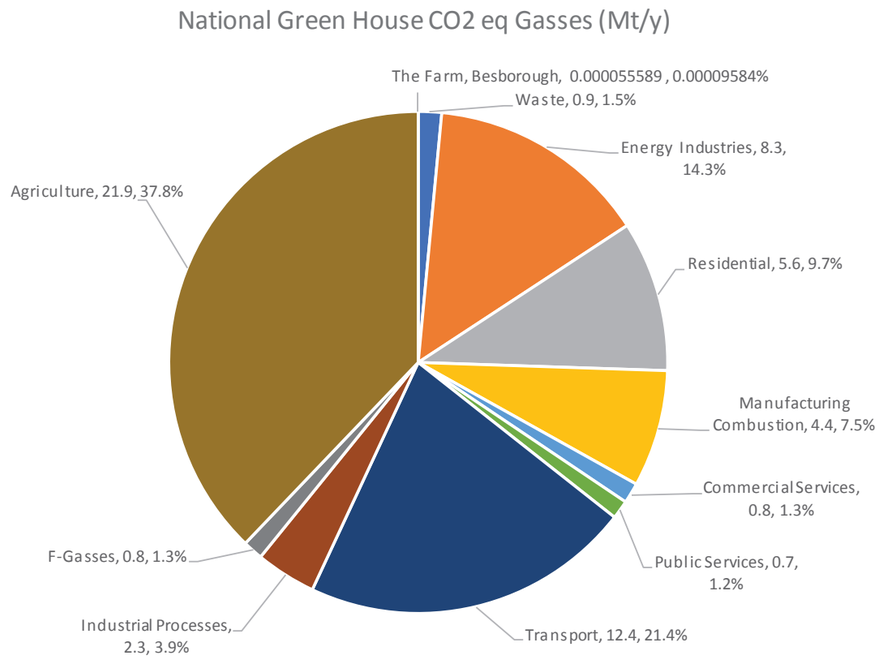
We note from the table above that the overall development achieved an annual energy reduction in energy of -1,098,601 kWh resulting in an annual carbon dioxide (CO2) reduction of -242,317 kg CO2. The combined total development annual renewable contribution with the proposed systems stands at 219,301 kWh which would be deemed a great benefit to the global environment

2.6 Conclusion

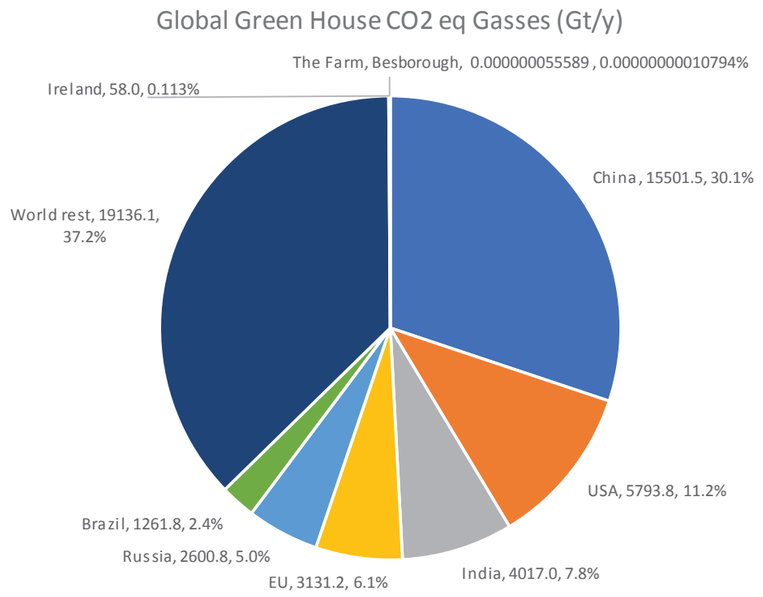
In essence passive reduction measures and on-site produced renewable energy are most beneficial as they are a permanent reduction measures and alternative energy supply combatting not only the global climate change but also the inflation on energy cost. Compliance to part L 2022 is achieved by means of a 70% primary energy reduction on the reference dwelling or an EPC (primary energy) of 0.30 or less and 65% carbon diode reduction or a CPC (carbon dioxide) of 0.35 or less and an equivalent primary renewable energy contribution of 20% or more. The energy reduction proposals resulted in a much lower primary energy and carbon dioxide performance than required under Part L 2022 and achieved a renewable energy contribution in excess of 50% or half of the primary energy coming from a renewable source. These results were achieved by applying the proposed exposed element parameters in combination with air source heat pumps for space & hot-water heating and other reduction measures proposed. However as mentioned in the technical sections similar results or compliance can also be achieved by a number of other methods listed in section 4.8 in combination with proposed passive reduction measures outlined in section 4.7.

We conclude to state that until we globally manage to construct and operate at actual zero carbon emissions, any new development in theory will increase the global carbon output however, in the meantime, key to the energy approach of this development is to minimise the impact as demonstrated above.

M8801-DKP-5000-DC-XX-XX ¦ 3P 2025-09-25 Energy/ Climate impact report The Farm - Bessborough



Copy of illustration 5.1: Irelands (EPA) national annual sectorial CO2 (GHG) emissions.



Copy of illustration 5.2: Global by country / area annual CO2 (GHG) emissions.

3 Geographical overview

3.1 **Project overview**
Image 3.1 the (google maps) site is an overview of the site area with the proposed development approximately outlined in red.

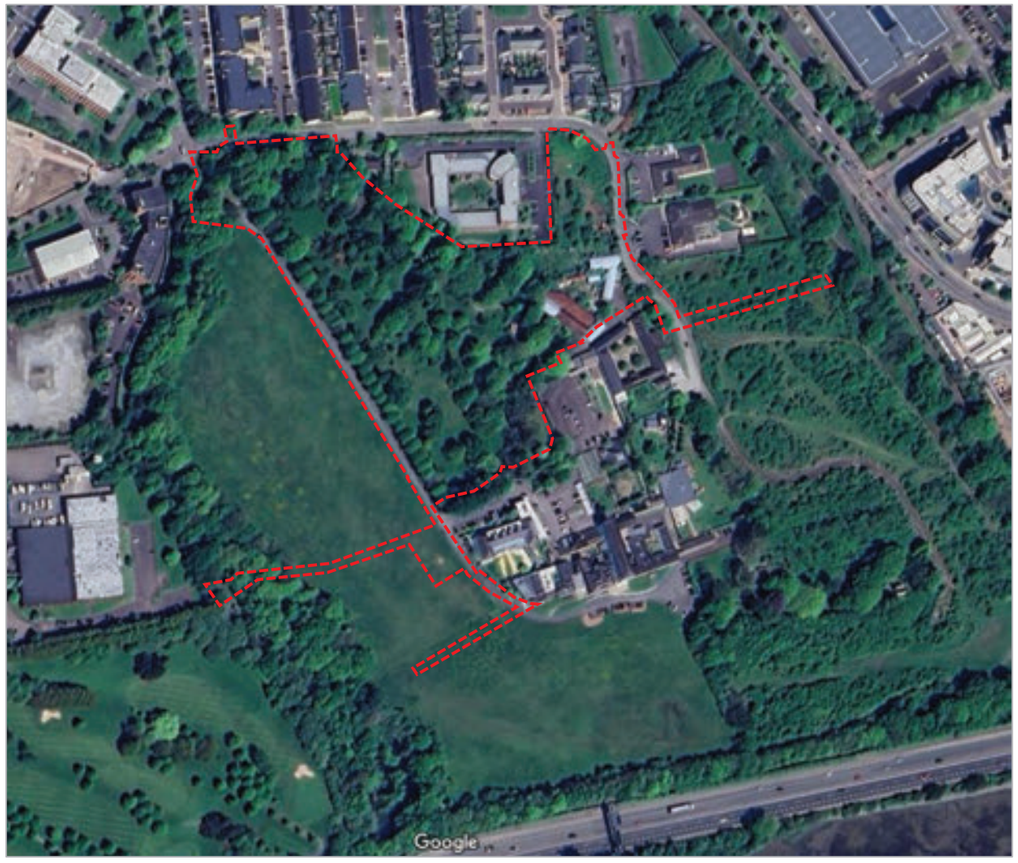


Image 3.1: Proposed development site boundary. Imagery © Google 2025.

4 Approach & methodology

4.1 **General approach**
The target of the building's energy usage and carbon dioxide emissions is to comply to the current building regulations and to design the building and building services in line with the "Nearly Zero Energy Building" energy policy adapted in Part L 2022. Calculations have been conducted on all the developments dwelling/apartment units with the given data in this report representing the averages across all of the dwelling/apartment units.

4.2 **Building regulations requirements**
Building regulation (residential) Part L : 2022 will apply as the development has not commenced before November 1st nor has planning be applied for before November the 1st to avail of the transition period of Part L 2019.

4.3 **Part L 2022 general approach**
Part L requires a new dwelling to make primary energy and carbon dioxide emission reductions on a reference dwelling by applying improved calculation parameters and technologies. Part L also requires the actual dwelling to provide at least 20% of its primary energy usage by means of renewable energy. The reference dwelling is exactly the same as the actual dwelling but uses fixed pre-set (by the SEAI) basic standard Part L calculation parameters, U-values / insulation levels, energy conversion efficiency, controls etc. to enable the actual dwelling to make substantial reductions. The reference dwelling has no renewable energy element.

To simplify the calculation data presented in this report, rather then issuing the calculated data of each unit type, we applied the DEAP /BER calculation to a unit representing the average floor area, exposed external wall area, roof area, window/door (glass) area etc across all of the units and all of the different types. For this report the average unit is represented by a single storey unit with a total floor area of 62.3m2, an exposed wall area of 60.6m2, window / door (glass) area of 8.1m2 and a roof area of 62.3m2.

4.4 **Reduction targets**
The following are the reference building and target (to be achieved) values.

Single average unit: 62.3 m2

Element	Unit	Reference	To be achieved	Rate m2	factor
Primary Energy	kWh/y	10,949	3,285	52.7	0.30
Carbon Dioxide	kg/y	2,128	745	12.0	0.35
Renewable energy	kWh/y	-	657	10.5	0.20

Table 4.1

4.5 **Reduction hierarchy**
To target the Part L minimum required reductions DKP use the following reduction hierarchy ;
Step 1 - Reduce energy usage
Step 2 – Produce energy efficiently
Step 3 – Provide on-site energy

4.6 **Step 1 - Reducing energy usage**
Energy use reduction is mainly achieved by reducing the actual heat loss of the building by :
a - Lowering the heat loss through the floors, walls, roof by increasing the thermal resistance of the elements.
b - Lowering the heat loss through the glazed elements by using windows with a higher thermal resistance.
c - Lowing the heat loss by using insulated construction joints.
d - Increasing the air tightness to minimise the involuntary air infiltration rate.

The following parameters have applied as a means to achieve compliance

- Air tightness:

Design target **1.5 to 2.0** m3/m2*h
Design permeability is set at 1.5 m3/m2*h @ 50Pa or an approximate atmospheric exchange rate of 0.075 ach.
to be achieved with very good workmanship with taped and sealed construction joints and or purpose membrane.
Used this report & BER = 1.6 m3/m2h

- Cold bridging:

U<=**0.08 – 0.15** W/m2K All construction joints to be insulated. Approved Part L joints as per appendix D.
The actual linear coefficient will be applied using the Part L appendix D approved construction details with some (15%) recalculated better insulated joints as listed below using ;

Used this report & BER = 0.06 W/m2K (ICF construction)

- Ventilation:

a) Natural ventilation by means of passive window or wall ventilators in combination with intermittent extract (fans) from bathrooms, en-suites, utilities, WC's and kitchens, or
b) Demand controlled 24 hour/365 operated central mechanical extract system (no heat recovery)
Requires +/- 60% natural ventilation openings typically 4,000mm^2 per habitable room. 100% permanent.
All wet rooms fully ducted from central location typically Ø80mm duct work. or
c) Demand controlled 24 hour/365 operated central mechanical supply and extract system (with heat recovery)
No natural ventilation opening. Sealed building. All habitable / wet rooms fully ducted typically Ø100mm duct work.

the above 3 options with separate manual operated on/off kitchen extract.

Used this report & BER = b) Demand controlled 24 hour/365 operated central mechanical extract system (no heat recovery) Requires +/- 60% natural ventilation openings typically 4,000mm^2 per habitable room. 100% permanent.
All wet rooms fully ducted from central location typically Ø80mm duct work with separate manual operated on/off kitchen extract.

- Heating / hot-water controls:

a) 1no. (space heating / hot-water) time clock or
b) 1 no. (space heating / hot-water) temperature control or
c) 1 no. (space heating / hot-water) time clock and 1 no. (space heating / hot-water) temperature control or
d) 1 no. (space heating / hot-water) time clock and individual room temperature control. or
e) 1 no. (space heating / hot-water) time clock and individual room temperature & hot water temperature control or
f) Individual (space heating / hot-water) time clock and individual room temperature & hot water temperature control
- Used this report & BER = e) 1 no. (space heating / hot-water) time clock and individual room temperature & hot water temperature control.

- Lighting:

Low energy lighting **0%-100%**.
All lighting point are either LED or compact fluorescent fittings or fittings with LED or compact fluorescent filaments.
- Used this report & BER = 100%.

- Circulation pumps:

Stand or Variable speed circulating pump(s)
Used this report & BER = Standard pump

- Avoided for this report; Chimney / open fire, Chimney / biomass stove, Biomass stove, Gas stove, Electric fire

4.7 **Building minimum elemental parameters**

The following are the main building minimum target values for Part L 2022 ;

Element	Unit	2022	Proposed
External walls	U (W/m2K)	0.18	0.14
Windows/glazing	U (W/m2K)	1.40	1.20
Solar transmittance		High g factor note	--------
Light transmittance			--------
Pitched roof horizontal	U (W/m2K)	0.16	0.11
Pitched roof pitched	U (W/m2K)	0.16	0.11
Flat roof	U (W/m2K)	0.20	0.11
Ground floor	U (W/m2K)	0.18	0.12
Cold bridging	U (W/m2K)	0.15 / 0.08	0.06
Air tightness	M3/m2*h	3	2.5

Table 4.2

- Ground floors: Part L minimum 0.18 W/m2K.

U = **0.14 – 0.16** W/m2K
120-150mm high density polyurethane foam board (HDPUF) floor insulation, k<=0.022/0.021 W/mK plus
12.5mm high density polyurethane foam board (HDPUF) edge insulation around the perimeter, k<=0.022W/mK
Used for this report & BER = 0.150 W/m2K

- External walls + walls to unheated common spaces: Part L minimum 0.18 W/m2K.

U= **0.16 - 0.18** W/m2K
135 - 160mm partial or full fill cavity high density polyurethane foam board wall insulation, k<=0.022/0.021 W/mK
Emissivity factor : =0.5
Used this report & BER = 0.178 W/m2K

- Party walls:

U= x.x W/m2K where appropriate.
Solid plastered or skimmed both sides and sealed on all edges and joints.
Used this report & BER = 0.00 W/m2K

- Roof: Part L minimum 0.18 W/m2K.

U= **0.12 – 0.16** W/m2K
Flat : 100-125mm high density polyurethane (HDPUF), cold side (roof) insulation, k<=0.022/0.021 W/mK +
50-60mm density polyurethane (HDPUF), warm side insulated plasterboard, k<=0.022/0.021 W/mK
Used this report & BER = 0.124 W/m2K

- Window & frame: Part L minimum 1.4 W/m2K.

U<=**1.2 – 1.4** W/m2/K,
Double or triple glazed Argon filled insulated frame
Solar transmittance 0.45
Light transmittance : 0.67
Frame factor : 0.7
Used this report & BER = 1.4 W/m2K

- External door & frame:

U = **1.4** W/m2K
Insulated solid door or as above.
Used this report & BER = 1.4 W/m2K

5 Calculation results

5.1 Calculation data

The table below shows the calculation results from the average size dwelling with the average external wall area, glass area, orientation, floor * roof area etc. The table details the reference building primary energy, carbon dioxide and renewable energy data, the required reductions / contributions and what has been achieved using the more advanced building part L parameters from items 4.6 reduction parameters and 4.7 energy & renewable energy options.

Single average unit: 62.3 m2

Element	Unit	Reference	To be achieved	Rate m2	mp epc/cpc	Achieved	Rate m2	epc/cpc
Primary Energy	kWh/y	10,949	3,285	52.7	0.30	**3,102**	49.8	0.283
Carbon Dioxide	kg/y	2,128	745	12.0	0.35	**397**	6.4	0.187
Renewable energy	kWh/y	-	657	10.5	0.20	**1,566**	25.1	0.505

Table 5.1

From the table above we note that the proposed building services solutions resulted in a primary energy reduction of 71.7%, a carbon dioxide emission reduction of 81.3% and a renewable primary energy equivalent of 50.5%

BER rating **A2** 49.8 kWh/m2/y

Overall combined development achievements **140** Units

Element	Unit	Reference	To be achieved	Rate m2	mp epc/cpc	Achieved	Rate m2	epc/cpc
Primary Energy	kWh/y	1,532,860	459,858	52.7	0.30	**434,259**	49.79	0.28
Carbon Dioxide	kg/y	297,906	104,267	12.0	0.35	**55,589**	6.37	0.19
Renewable energy	kWh/y	0	91,972	10.5	0.20	**219,301**	25.14	0.51

Table 5.2

Overall combined differences:

Primary Energy	kWh/y	REDUCTION	**-1,098,601**
Carbon Dioxide	kg/y	REDUCTION	**-242,317**
Renewable energy	kWh/y	CONTRIBUTION	**219,301**

Table 5.3

We note from the table above that the overall development achieved an annual energy reduction in energy of -1,098,601 kWh resulting in an annual carbon dioxide (CO_2) reduction of -242,317 kg CO_2. The combined total development annual renewable contribution with the proposed systems stands at 219,301 kWh which would be deemed a great benefit to the global environment

A decision on the final agreed energy supply solution will be made in due time after the proposed systems economical assessment.

5.2 National impact

To give some guidance on the environmental impact of the proposed development we have compared the achieved carbon emissions with our national and global emissions. The table below shows the current national emissions, the forecasted 2030 emissions and the EPA forecasted emission with proposed additional national measures to combat global carbon emissions. We note that year 2023 (current) has higher carbon emissions as a result of the added construction element carbon emissions. We also note that for the purpose of these calculations the carbon factor from our electricity grid being the source of energy for the development is maintained at the same carbon output rate through to 20230 whereas in real terms the carbon factor of the national grid would be less in 2030 as a result of the governments target to de-carbonised the grid.

4.8 Step 2 and 3) Provide energy efficiently and provide on-site renewable energy

Energy and renewable energy can be provided in numerous ways.
Given the location of the project and its accessibility to grid utilities the following options could be considered for the provision of energy and renewable energy.

- Energy and alternative renewable on-site energy source.

a) LTHW (wet) Mains gas condensing system or instantaneous hot-water boiler (η>92%) + 5 PV 400Wp panels, or
b) LTHW (wet) Mains gas condensing hot-water storage boiler (η>92%) + 4 PV 400Wp panels, or
c) LTHW (wet) Split or mono block air source heat pump (η heating>540%, η hot-water >245%), or
d) Electric space heating (dry) + Hot water heat pump (η hot-water >485%) (units up to +/- 80m2 only), or
e) A communal form of heating system with any of the above options or a combination of any of the above options.

There are also other possible sources like city district heating networks CDHN, CHP heating networks, on site communal heating with CHP, geothermal heat or waste heat recovery from incineration or other industrial processes to be considered. As there are no city heating net works in close vicinity to the project site a local on-site energy source is to be applied. CHP is not efficient as the projects base load is not sufficient to maintain viability on a CHP plant. The project, as it is relatively dense, may suit a communal heating system fed by a combination of mains gas boilers and heat pumps however this needs to be economically assessed for viability and if applied does bring the additional requirement of heat energy metering and invoicing to apartment occupiers. For the report we have applied option c) = Air source heat pump.

4.9 Renewable energy

This means producing on-site renewable energy by using;
a) Thermal solar panels for hot water and/or space heating.
b) Photovoltaic (PV) panels for electrical energy for all electrical requirements.
c) Wind mill(s) for electrical energy for all electrical requirements.
d) Biomass (wood, pellet, chip) plant for hot water and/or space heating.
e) Incinerator(s) for waste heat production
f) Heat pump renewable energy.

Given the configuration of the development and the urban location wind power has not been considered. Biomass, although theoretically a good renewable option, has given issue's in other project's with similar use due to maintenance problems with the actual plant giving rise to complaints from occupants / users. PV is generally a good and passive option to be considered. For this report we have applied option f) = Heat pump renewable energy fraction.

4.10 Calculation software

Primary energy and carbon dioxide performance calculations are executed using the National Calculation Methodology government approved Domestic Energy Assessment Procedure (DEAP version 4).

4.11 Over heating

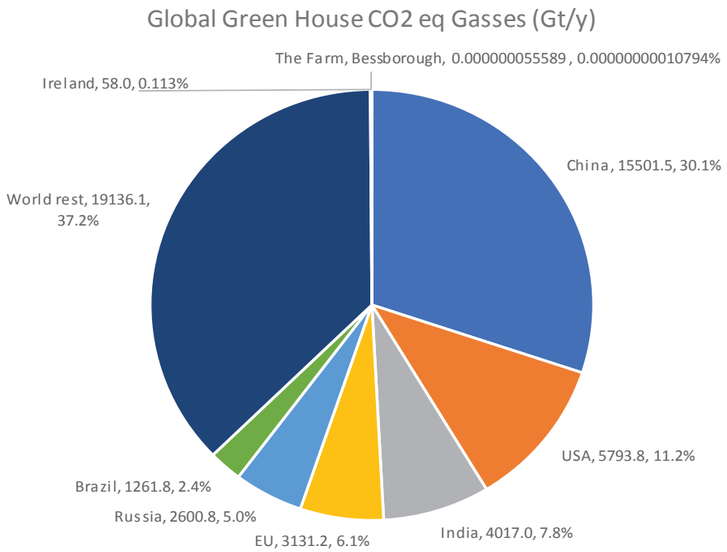
Over heating can be an issue and an over heating analysis was conducted using the Passive House PPH analysis software which concluded that the risk to overheating was minimal in accordance to CIBSE TM37. Overheating can also be addressed by applying glass with a higher solar reflection factor or lower emittance factor.

GLOBAL IMPACT

GHG CO2 eq emissions	Unit	Global emissions	Development missions	Fraction (%)
Year 2024	Gt-CO2/year	53.80		
Year 2025	Gt-CO2/year	53.50	0.0000001279	0.000000238981
Year 2030 * target	Gt-CO2/year	51.50	0.0000000556	0.000000107940

Copy of Table 4.7 Gt=1000 Million tonnes (Mt)

We note from the table above that the overall impact of the The Farm, Bessborough on the global green house emissions is 0.0000002390 % in 2025 and 0.0000001079% in 2030 and would be deemed under any other situations other than CO2 emissions to be negligible. Irelands estimated 2024 global contribution of 0.05925 Gt/y stands at ca 0.11% from the global emissions



5.4 **Part L compliance conclusion**

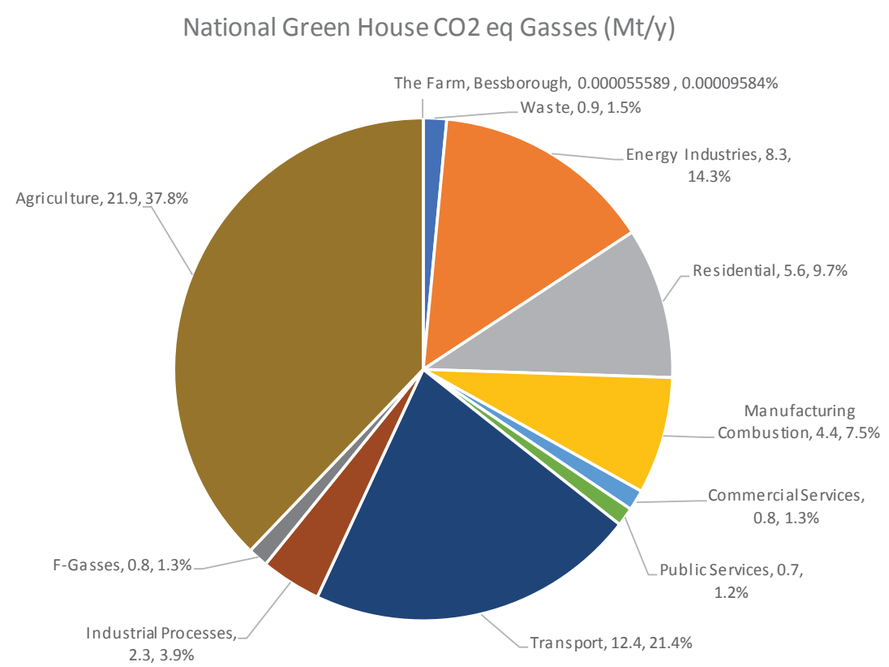
Compliance to part L 2022 is achieved by means of a 70% primary energy reduction on the reference dwelling or an EPC (primary energy) of 0.30 or less, a 65% carbon diode reduction or a CPC (carbon dioxide) of 0.35 or less and an equivalent primary renewable energy contribution of 20% or more. The compliance calculation results where achieved by the application of the suggested façade parameters in combination with an air source heat pump for space & hotwater heating and photovoltaic panels. As mentioned in the above sections this can be achieved by a number of methods listed in section 4.8 in combination with proposed passive reduction measures outlined in section 4.7. We note that, until the moment we can construct at actual zero carbon emissions, any new construction will increase the global carbon output however key to this is minimising the impact as demonstrated in the sections above.

NATIONAL IMPACT

GHG CO2 eq emissions	Unit	National emissions	Development missions	Fraction
Year 2024	Mt-CO2/year	59.50		
Year 2025	Mt-CO2/year	59.25	0.0001279	0.0002158
Year 2030 * target	Mt-CO2/year	58.00	0.0000556	0.0000958
Year 2030 + Measures target	Mt-CO2/year	48.00	0.0000556	0.0001158

Copy of Table 4.6 Mt=Million tonnes i.e.; 55,589 kgCO2/y = 0.0000556 MtCO2/y

We note from the table above that the overall development impact on our national greenhouse emissions is 0.0002158 % in 2025 and 0.0000958% in 2030 and would be deemed absolutely minimal.



Copy of illustration 5.1: Irelands (EPA) national annual sectorial CO2 (GHG) emissions.

5.3 **Global impact**

Irelands current impact on the +/- 53Gt current global GHG emissions represents a mere 0.11% fraction hence the impact of the proposed development on the global emissions is near impossible to express in a fraction. The table below gives guidance on the global emissions and future targets against the emissions of the national output and the proposed development.

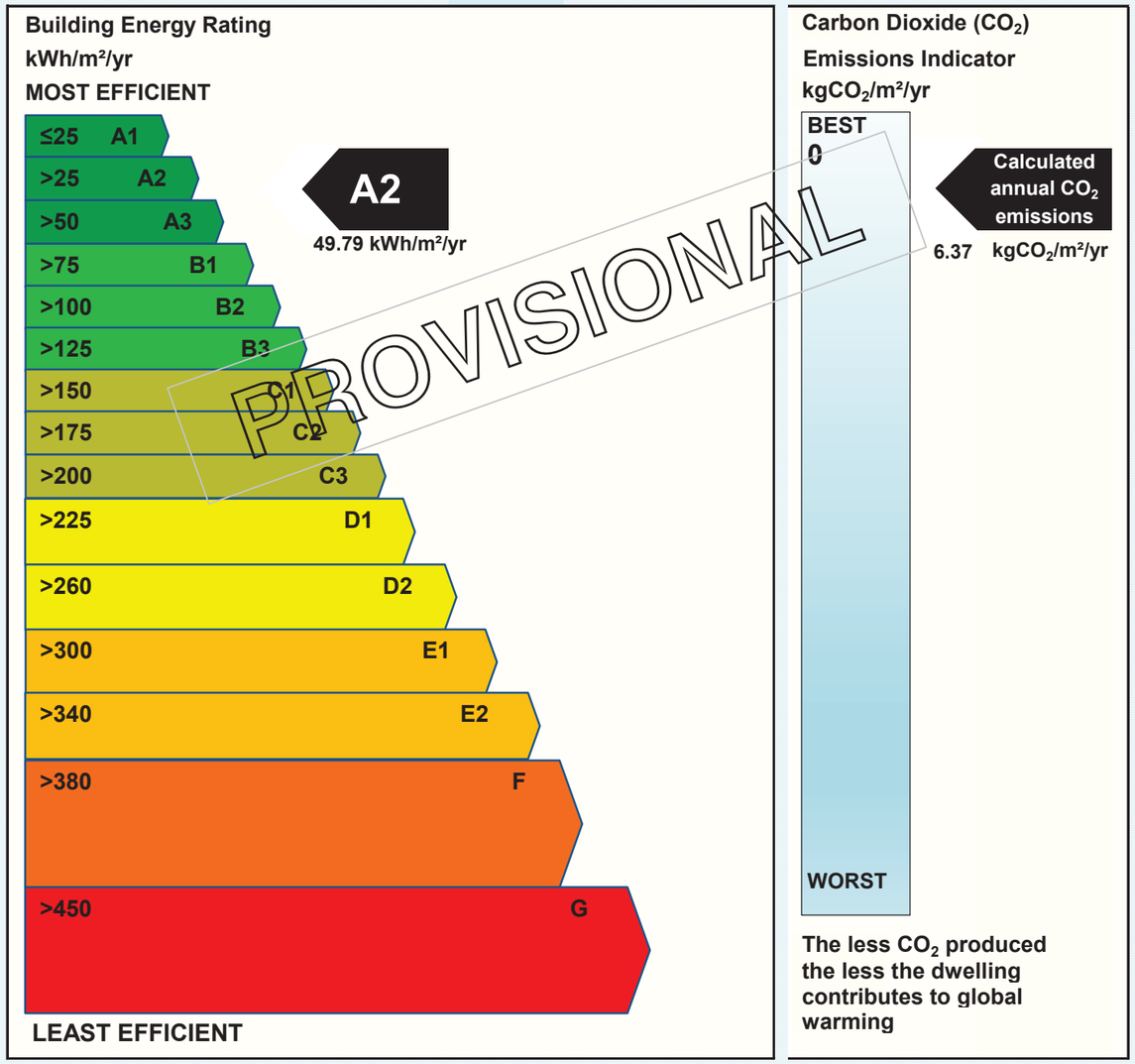
Building Energy Rating (BER)

BER for the building detailed below is : **A2**

Address	Average unit The Farm Bessborough Cork
BER Number	999999999
Date of issue	23/09/2025
Valid untill	22/09/2027
Assessor number	266723
Assessor company No	337125

The building Energy Rating (BER) is an indication of the energy performance of this dwelling. It covers energy use for space heating, water heating, ventilation and lighting, calculated on the basis of standard occupancy. It is expressed as primary energy use per unit floor area per year (kWh/m²/yr)

A' Rated properties are the most energy efficient and will trend to have the lowest energy bills.



IMPORTANT : This BER is calculated on the basis of data provided to and by the BER assessor, and using this version of the assessment software quoted below. A future BER assigned to this dwelling maybe different, as a result of changes to the dwelling or to the assessment software.

DEAP Version : 4.2.2

APPENDIX A

BER Prelim Certification

The Farm Apartment Development

Type AVRG

TGD Part L (2022) Report

DKP V-2022

End unit (3 exposed walls), No exposed roof, 1 Storey(s), 62.3m2 floor area
49.8kWh/yr/m2, A2

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

APPENDIX B

Part L Report

AVRG	**AVRG**

Average unit The Farm
Bessborough
Cork

Issue date
2025-09-22

DKP project file no
M8801-DKP-5080-XL-XX-XX ¦ 1G

DKP document no
5080

5080

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E : post@dkpartnership.com

DKP PART L REPORT

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

DEAP CALCULATION DATA / RESULTS

Dwelling dimensions **TGD L version** 2022

	Area [m²]	Height [m]
level 1	62.3	2.60
level 2	0.0	0.00
level 3	0.0	0.00
level 4	0.0	0.00
Total floor area [m²]	62.3	
Dwelling volume [m³]	162.0	
Living area [m²]	15.0	

Ventilation

Number of chimneys	0	
Number of open flues	0	
Number of intermittent fans and passive vents	7	
Number of flueless gas fires	0	
Is there a draught lobby on main entrance?	no	
Number of storeys in the dwelling	1	
Has an air permeability test been carried out?	Yes	1
If no Not applicable		
Structure type	-	
Is there a suspended wooden ground floor?	-	
Percentage of windows and doors draughtstripped [%]	0	
If ye :		
Air permeability [m3/h.m2 at 50 Pa]	2	
End if		
Number of sides sheltered	2	
Ventilation method	Whole-house extract ventilation	4
Effective air change rate [ac/h]	0.74	
Ventilation heat loss [W/K]	40	
Permeability test carried out and meets guidelines in TGD L?	Complies	
For mechanical ventilation, other than positive input ventilation from loft:		:
Is measured "PCDB" data available?	Yes	
Manufacturer and model	TBA	
Specific fan power [W/(l/s)]	0.5	
Heat exchanger efficiency [%]	-	

Windows

Orientation	East/West	East/West	0	0	0	0	0	0	Horizontal
Orientation ID	3	3	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	6
Area [m²]	6.466	1.645	0	0	0	0	0	0	0
U-value [W/m² K]	1.40	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Is U-value a manufacturer's certified value?	yes	yes	yes	yes	yes	yes	yes	yes	yes
If yes:									
Manufacturer and model	-	-	-	-	-	-	-	-	-
Solar energy transmittance	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
End if									
Correction for roof window and/or metal frame if applicable (Table 6a, notes 1 and 2).									
	0	0	0	0	0	0	0	0	0
Overshading ID	2	2	2	0	0	0	2	2	2
Frame factor (Table 6c) [-]	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Window type ID	2	2	2	2	2	2	2	2	2

M8801-DKP-5080-XL-XX-XX ¦ 1G TGD Part L (2022) Report The Farm Apartment Development Type AVRG End unit (3 exposed walls), No exposed roof, 1 Storey(s), 62.3m2

DKP PART L REPORT Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

MAIN SUMMARY Part L 2022

Primary energy		TO BE ACHIEVED			ACHIEVED			Compliance	Margin
Energy performance (reduction %)		0.300	MEPC (70%)		0.283	EPC (72%)		☑	+ 6%
Annual primary energy		3,285	kWh/y		3,102	kWh/y		☑	+ 182.7
Annual primary energy / m2	A3	52.7	kWh/y/m2	A2	49.8	kWh/y/m2		☑	+ 2.93
Carbon dioxide emission								Compliance	Margin
Carbon performance coefficient		0.350	MCPC (65%)		0.187	CPC (81%)		☑	+ 47%
Annual carbon emission		745	kg/y		397	kg/y		☑	+ 347.7
Annual carbon emission / m2		11.95	kg/y/m2		6.4	kg/y/m2		☑	+ 5.58
Renewable energy								Compliance	Margin
Renewable energy ratio		0.20	RER		0.51	RER		☑	+ 153%
Annual renewable energy		1,254	kWh/y		3,167	kWh/y		☑	+ 1,913.0
Annual renewable energy / m2		20.1	kWh/y/m2		50.8	kWh/y/m2		☑	+ 30.71

MEASURES APPLIED

Exposed envelope thermal resistance		area		Part L limits		Actual dwelling		Compliance
Floors		62.3	m2	0.180	W/m2K	0.143	W/m2K	☑
Walls		50.4	m2	0.180	W/m2K	0.170	W/m2K	☑
Roofs Na		0.0	m2	0.160	W/m2K	0.000	W/m2K	☑
Glazing	Floor fraction: 13.0%	8.1	m2	1.400	W/m2K	1.400	W/m2K	☑
Door		2.1	m2	1.400	W/m2K	1.400	W/m2K	☑
Weighted opaque elements		112.7	m2	0.180	W/m2K	0.155	W/m2K	☑
Cold bridging				0.150	W/m2K	0.080	W/m2K	☑
Airtightness		0.10	ach	3.000	m3/m2h	* 2.000	m3/m2h	☑

* Airtightness design target

Building services parameters

Space heating 1:	Electricity	Heat Pump	464%	4kW, System flow temperature 50C°
Space heating 2:	n/a		n/a	
Water heating 1:	Electricity	Heat Pump	258%	4kW, 230L, 1.4kWh/d Standing loss
Water heating 2:	n/a		n/a	
Ventilation:		Whole-house extract ventilation		El ɲ=0.5W/l/s
Lighting:		16 x LEDs/ CFL		
Glazing solar / light transmittance:		0.45 / 0.80	Glazing orientation and over shadowing. See page 6.	
Water saving measures:		None +/- 11l/s per shower		
Space / Water heating load:		SH 1,940W @ -3C° / WH 1,725W @ 150min recovery for a 45C° rise (10C°- 55C°)		
On site produced energy:		n/a		

Comments

The dwelling is compliant to Part L 2022 with a BER label of A2
Compliance to Part L has a reasonable margin of 5.6% allowing for some construction adjustments if required.

Insulation data used for U value calculations;

Wall T1 (50.4m2) : Uv = 0.170W/m2K 110mm HDPIR @ 0.022 W/mK Foil faced
Roof T1 (77.9m2) : Uv = 0.127W/m2K 150mm Rockwool @ 0.04 W/mK + 150mm Rockwool @ 0.04 W/mK
Floor T1 (62.3m2) : Uv = 0.143W/m2K 160mm EPS @ 0.031 W/mK

Hierarchy
☒ Not compliant
☒ Within 5%
☑ Compliant **
☑ Compliant

DKP PART L REPORT

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

Lighting

Annual energy used for lighting, EL [kWh/y]	176

Internal gains

Net internal gains [W]	344

Heat use

Living area fraction [-]	0.24
Thermal mass category of dwelling	Medium
Heat use [kWh/y]	2325

Space heating

Control and responsiveness

Temperature adjustment (Table 4e), where appropriate [C]	0
Heating system control category (Table 4e)	3
Heating system responsiveness category (Table 4a or 4d)	1

Pumps/fans

	Enter number present	If present, is boiler controllec by room thermost	If present, inside dwelling?
Central heating pump (supplying hot water to radiators or underfloor system)	1	Yes	
Oil boiler - pump (supplying oil to boiler and flue fan)	0	Yes	Yes
Gas boiler - flue fan (if fan assisted flue)	0		
Is there a warm air heating system present?	no		

Emission efficiency

Is main heat emission system within an envelope element? (e.g. underfloor heating in ground floor)		no	0
If yes, U-value of envelope element [W/m^2 K]	0.1432		
Type of main heating system	Individual system	1	

Energy requirements - individual heating systems :

Space Heating

Efficiency of main heating system [%] (including Efficiency Adjustment Factor)	464.5
Fraction of heat from secondary / supplementary system (from Table 7, Table 10 or Appendix F)	0
Efficiency of secondary / supplementary heater(s) [%] (from Table 4a or Appendix E)	0

Water heating

Efficiency of main water heater [%] (from HARP or from Table 4a or 4b)	257.63

Fuel data	Fuel
Space heating - main	Electricity
Space heating - secondary	-
Water heating - main	Electricity
Water heating - supplementary	-
Photovoltaic/ Wind Turbine	0 kWh/y
Solar Thermal	0 kWh/y

Renewable and energy-saving technologies		Primary energy factor [-]	CO2 factor [kg/kWh]	Delivered energy [kWh/y]
Type	Description			
	Energy produced or saved	1.75	0.224	0
	Energy consumed	0.00	0.000	0
Type	Description -			
	Energy produced or saved	0.00	0.000	0
	Energy consumed	0.00	0.000	0
Type	Description -			
	Energy produced or saved	0.00	0.000	0
	Energy consumed	0.00	0.000	0

M8801-DKP-5080-XL-XX-XX ¦ 1G TGD Part L (2022) Report The Farm Apartment Development Type AVRG End unit (3 exposed walls), No exposed roof, 1 Storey(s), 62.3m2

DKP PART L REPORT

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

Fabric

Exposed element type	Area [m^2]	U-value [W/m^2 K]	*AU [W/K]*	Comment (optional)	Element type (for assessing TGD L conformity)
Windows/rooflights	8.11	1.326	10.75	1.4	
Doors	2.10	1.400	2.94	1.4	
Floor	62.30	0.143	8.92	0.18	No underfloor heating
Floor (type 2)	0.00	0.000	0.00	0.18	No underfloor heating
Floor (type 3)	0.00	0.000	0.00	0.18	No underfloor heating
Walls	50.37	0.170	8.59	0.18	Wall relevant for TGD L fabric compliance check
Walls (type 2)	0.00	0.000	0.00	0.18	Wall relevant for TGD L fabric compliance check
Walls (type 3)	0.00	0.000	0.00	0.18	Wall relevant for TGD L fabric compliance check
Walls (type 4)	0.00	0.000	0.00	0.18	Wall relevant for TGD L fabric compliance check
Walls (type 5)	0.00	0.000	0.00	0.18	Wall relevant for TGD L fabric compliance check
Roof	0.00	0.000	0.00	0.16	Flat roof
Roof (type 2)	0.00	0.000	0.00	0.16	Pitched roof - Insulation at ceiling
Roof (type 3)	0.00	0.000	0.00	0.16	Pitched roof - Insulation on slope
Roof (type 4)	0.00	0.000	0.00	0.2	Pitched roof - Insulation at ceiling
Roof (type 5)	0.00	0.000	0.00	0.16	Pitched roof - Insulation on slope
Total area of elements [m^2]	122.9				
Heat loss via plane elements [W/K]			31.20		
Factor for thermal bridging [W/m^2 K]			0.08		
Fabric heat loss [W/K]			41.03		
Dwelling heat loss coefficient [W/K]			80.84		
Heat loss parameter, HLP [W/K m^2]			1.30		

Water heating

Are there distribution losses?	yes		
Distribution loss [kWh/y]	298		
Are there storage losses?	yes	1	
If ye :			
Water storage volume [litres]		230	
Is manufacturer's declared loss factor available?		yes	1
If ye :			
Manufacturer and model name		tba	
Manufacturer's declared loss factor [kWh/day]		1.4	
If no Not applicable			
Insulation type on hot water store		Factory insulated	
Insulation thickness [mm]		70	
End if			
Temperature factor unadjusted (Table 2)	0.6		
Temperature factor multiplier (from Table 2 notes)	0.9		
End if			
Is there a solar water heating system?		No	0
If ye Not applicable			
Solar DHW input, Qs [kWh/y]	0	Solar fraction [%]	0
Is solar water heating pump PV powered?	-		
End if			
Primary circuit loss [kWh/y] (Table 3)		0	
Additional loss for combi boiler [kWh/y] (Table 3a)		0	
Electricity consumption of electric keep-hot facility of combi boiler [kWh/y] (Table 4f)		0	
Is supplementary electric immersion heating is used in summer?		no	
Output from main water heater [kWh/y]		2264	
Output from supplementary heater [kWh/y]		0	
Heat gains from water heating system [W]		101	
Is hot water storage indoors or in group heating scheme?		Yes	

DKP PART L REPORT

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

Conformity with MPEPC and MPCPC requirements in TGD L ***2022***

		Max permitted	
EPC	0.283	0.30	Complies
CPC	0.187	0.35	Complies
RER	0.505	0.20	Complies

Window schedule ***3no.***	GF	FF
Overshadowing	2	2
	East/West	East/West
Width	2.00	
Heigth	1.18	
Area	2.35	
U-value	1.40	
Width	1.96	1.40
Heigth	2.10	1.18
Area	4.12	1.65
U-value	1.40	1.40
Width		
Heigth		
Area		
U-value		
Width		
Heigth		
Area		
U-value		

Glazing shadow status : 3no @ 2 : average or unknow shadow, East/West,

Heat energy load / Heat energy input :

Space heating load / input : 1,940 W @ -3C°

Hotwater heating load / input : 1,725 W @ 150min recovery for a 45C° rise (10C°- 55C°)
127 l per day hot water usage

HEAT PUMP SPACE HEATING DATA

		A (88%) -7oC	B (54%) 2oC	C (35%) 7oC	D (15%) 12oC	E* (100%)	
Daiken 4kW / 230l hot-water		A-7 W34	A2 W30	A7 W27	A12 W24	A-10 W35	Test Conditions EN 14825:2013
Low Temperature Application (35oC)	kW	5.5	3.3	3.2	3.3	5.2	
	COP	2.9	4.33	6.19	7.78	2.56	
		A-7	A2	A7	A12	A-10	
High Temperature Application (55oC)	kW	W52	W42	W36	W30	W55	
	COP	5.3	3.3	3	3.3	4	
		1.97	3.23	4.4	6.1	1.37	

HEAT PUMP WATER HEATING DATA

Water heating energy efficiency, ηwh	133.0 %	Test Conditions EN 16147
Equivalent Coefficient of Performance	3.33 kW/kW	
Reference Hot Water Temperature	52.50 oC	
Required Source Temperature	7.00 oC	
Capacity of Heat Pump	4.00 kW	
Declared Load Profile	XL	
Standby Heat Loss	1.40 kWh/day	
Volume of DHW accounted for in test	288 litre	

DKP PART L REPORT

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

Energy requirements - group/community heating scheme Not applicable

Secondary space heating

Fraction of heat use from secondary / supplementary system (use value from Table 7, Table 10 or Appendix F)	0
Generation efficiency of secondary / supplementary heating system [%] (use value from Table 4a or Appendix E)	0

Main (group heating) system

Is charging based on heat consumed?	-
Distribution loss factor [-] (Table 9)	0
Fraction of heat from CHP unit or fraction of heat recoverd from power station	0

Boilers

(If the fraction of heat from boilers is zero, this section is irrelevant).

Heat source type	Fuel	Efficienc [%]	Percent of heat [%]
Other	-	0	0
Other	-	0	0
Other	-	0	0
Other	-	0	0
Solar heating system			0

Fuel data	Fuel
Space heating - secondary	-
Photovoltaics/ Wind Turbine	0 kWh/yr
Solar	0 kWh/yr

Renewable and energy-saving technologies		Primary energy factor [-]	CO2 factor [kg/kWh]	Delivered energy [kWh/y]
Type	Description -			
	Energy produced or saved		0.00	0.000	0
	Energy consumed		0.00	0.000	0
Type	Description -			
	Energy produced or saved		0.00	0.000	0
	Energy consumed		0.00	0.000	0
Type	Description -			
	Energy produced or saved		0.00	0.000	0
	Energy consumed		0.00	0.000	0

Results

	Delivere [kWh/y]	Primary [kWh/y]	CO_2 [kg/y]
Space heating - main	489	856	110
Space heating - secondary	0	0	0
Water heating - main	879	1,538	197
Water heating - supplementary	0	0	0
Pumps, fans	229	400	51
Energy for lighting	176	308	39
Renewable and energy-saving technologies			
CHP input (individual heating systems only)	0	0	0
CHP electrical output (individual heating system only)	0	0	0
Photovoltaic/ Wind Turbine	0	0	0
Type	0	0	0
Type -	0	0	0
Type -	0	0	0
Total	1,773	3,102	397
per m^2 floor area	28.5	49.8	6.4
Building Energy Rating [kWh/m^2 y]		50	A2

BESSBOROUGH, CORK

APPENDIX 3

Alternatives Considered

VOLUME III | APPENDICES

BESSBOROUGH, CORK

APPENDIX 3

Alternatives Considered

- Appendix 3-1 – Zoning Map
- Appendix 3-2 – Cork City Council - Notice of Opinion Phase 1 ‘The Farm’
- Appendix 3.3 - Arboricultural Assessment Phase 1 ‘ The Farm Report by ArboCare
- Appendix 3.4 - Historic Landscape Assessment Report by Forestbird Design

- **Appendix 3-1 – Zoning Map**

ZO 15 Public Open Space

ZO 10 Business and Technology

ZO 14 Public Infrastructure and utilities

ZO 04 Mixed Use Development

ZO 14 Public Infrastructure and utilities

HWP

ZO 01 Sustainable Residential Neighbourhoods

ZO 01 Sustainable Residential Neighbourhoods

ZO 10 Business and Technology

Phase 1 'The Farm'

Phase 2 'The Meadows'

ZO 10 Business and Technology

Phase 3 North Fields

ZO 17 Landscape Preservation Zones

ZO 11 Retail Warehousing

Phase 1 'The Farm'

Phase 2 'The Meadows'

Masterplan Lands including Phase3 'North Fields'

Area Of High Value Landscape

Cork City Zoning 2022

ZO 01, Sustainable Residential Neighbourhoods

ZO 04, Mixed Use Development

ZO 10, Business and Technology

ZO 11, Retail Warehousing

ZO 14, Public Infrastructure and utilities

ZO 15, Public Open Space

ZO 16, Sports Grounds and Facilities

ZO 17, Landscape Preservation Zones

ZO 19, Rivers and Water Bodies Protection

ZO 16 Sports Grounds and Facilities

ZO 17 Landscape Preservation Zones

ZO 19 Rivers and Water Bodies Protection

ZO 17 Landscape Preservation Zones

ZO 16 Sports Grounds and Facilities

Cork City Council, Google Earth

- Appendix 3-2 – Cork City Council - Notice of Opinion Phase 1 ‘The Farm’

Comhairle Cathrach Chorcaí
Cork City Council

Halla na Cathrach, Corcaigh - City Hall, Cork - T12 T997

Notice of Large-Scale Residential Development (LRD) Opinion

Planning and Development Act 2000 (as amended)
Planning and Development Regulations 2001 (as amended)
Planning And Development (Large-Scale Residential Development) Regulations 2021

Reference Number: LRD25-10

Proposed Development: The proposed development will consist of:
• the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structure and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works.
• The proposed development includes 140 no. apartments to be provided as follows:
70 no. 1-bedroom, 12 no. 2-bedroom (3 person), 57 no. 2-bedroom (4 person) and 1 no. 3-bedroom. Block A and Block B will be retained for resident amenities.

The proposal will include a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas, as well as new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessboro Road.

The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works.

Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road. Part of the proposed development is situated within the curtilage of Bessborough House which is a Protected Structure (Reference: RPS 490).
Location: The Farm, Bessborough, Ballinure, Blackrock, Cork.

The Planning Authority refers to your request pursuant to section 32B of the Planning and Development Act 2000 (as amended). Section 32D of the Planning and Development Act (as amended) provides that the Planning Authority shall provide an opinion as to whether or not the documents submitted for the purposes of the meeting constitute a reasonable basis on which to make an application for permission for the proposed LRD.

Following consideration of the issues raised during the consultation process the Planning Authority is of the opinion that the documentation submitted requires **further consideration and amendment to constitute a reasonable basis on which to make an application for permission for the proposed LRD.**

In the event that the applicant proceeds to submit a planning application, it is advised that the LRD application should be accompanied in the first instance by:

- A statement of response to the issues set out in the LRD opinion;
- A statement that in the applicants opinion the proposal is consistent with the relevant objectives of the City Development Plan for the area.

Furthermore, pursuant to Article 16A(7) of the Planning and Development Regulations 2001 (as amended), the prospective applicant is hereby notified that, in addition to the requirements as specified in Articles 20A, 22, and 23, the following specific information should be submitted with any application for permission. These are in addition to the information submitted at Opinion stage which should be updated accordingly having regard to any changes which are proposed, as a result of the below.

1. **Design and Placemaking:** The applicant is requested to provide further consideration of, and possible amendment to, the documents and/or design proposals in respect of the proposed building design, site layout and of the placemaking of the development, with particular focus on the following:

    a. The development site is within the curtilage of Bessborough House which is characterised by a significant level of parkland/open space areas. The proposal to locate Block C within the Landscape Preservation Zone is noted, with the 'Landscape Assets' for this area stating that development to the North of Bessborough House is accepted in principle, as long as it is '*consistent with the landscape and protected structure significance of the site*' (Table 6.9 of CDP).

    It is considered important to retain a meaningful connection between Bessborough House and the associated grounds. It is noted that 18th-century country houses and their landscapes formed part of an original design concept and are intrinsically linked. The proposed Block C, and it's associated roadway and parking area, would be located in the original pleasure gardens of the house, where a band of trees and paths were laid out. It is noted that while some developments have taken place over time, a garden character for this location has always been maintained and its relationship with the protected structure is considered of high importance. In terms of the hierarchy of spaces, the historic function of a driveway was to lead you through the parkland and then reveal the main house. As such, the presence of Block C would also alter and undermine the last vestiges of the approach landscape-setting of the main house. The proposed roadway and car parking would also occupy and be visible from within the parkland, which would have a negative visual impact on the character of the landscape and the setting of the protected structure.

    It is further noted that it is a long held Council objective that the established woodland/parkland on the site of the former Cork Heritage Park should remain intact to preserve its unique sylvan character and provide passive amenity space rich in biodiversity for residents of any residential development on this site, and for future residents of the South Docklands. Block C, and its access road and car park are situated within part of the established woodland which is not considered

acceptable. It is considered that the encroachment would completely change the character of this sylvan setting in a negative manner.

Consideration should be given to revising the proposal to omit Block C, and its associated roadway and car-parking area, to preserve the character of the protected structure and its curtilage, and to ensure the character of the sylvan parkland setting is retained.

b. It is considered that the proposal for two no. residential blocks in the farmyard setting, Blocks D and E, is considered acceptable in principle. The location of these blocks in relation to the protected structure on the site, Bessborough House, is noted. It is considered that in terms of a hierarchy of historic structures within this demesne, consideration should be given to the impacts of the proposed Blocks D and E on the character of Bessborough House and its associated landscape.

While the architectural form and expression of Block D is considered to be an appropriate response to the context, and overall presents an imaginative and high-quality design, the proposed height of the block, approximately one storey above Bessborough House, may lead to hierarchical concerns.

The design of proposed Block E is similar to that of Block D, in terms of architectural composition and expression, but is considered to be less successful due to the height and level changes. It is considered that a one storey reduction in height would result in a more appropriate response to the scale established elsewhere within the site. It is also considered that an adjustment to the roof design to a more unifying, linear roof form as per Block D, may be more appropriate.

Consideration should be given to revising the proposal to revise Blocks D and E as indicated above to preserve the character of the protected structure and its curtilage and to maintain the hierarchy of buildings relative to Bessborough House.

c. It is considered that the long-distant views 5, 6 & 7 show that the proposed height and massing of Blocks D and E would undermine the setting of the Bessborough House and its historic landscape, as the red roofs of these structures would punctuate the tree line and create an uncomfortable backdrop that would be out of character with the historic demesne setting. These large buildings, even at a considerable distance, would alter views to the protected structure and its historic landscape, and thus affect its essential character. The sketches show a muted colour red for the roofs of Blocks D & E but the visuals show quite a bright red. A darker/muted red colour would be more appropriate, particularly in terms of wider views from south of the river (Views 5, 6 & 7). Consideration should be given to revising the proposed roof colour of these blocks to reduce the impacts on the protected structure, particularly when viewed from a distance.

d. In relation to the points above, a full visual impact assessment should be submitted, ensuring both Summer and Winter views are provided, to allow for a full assessment of the visual impacts of the proposed development. The applicant should also ensure that Block E is visible in closer-range views, as appropriate.

(Please note the contents of the Conservation, Parks & Recreation, and City Architects Reports in this regard, see Appendix C).

The further consideration of the issues set out above may require amendment to the documents and/or design proposals submitted at application stage.

Furthermore, pursuant to article 16A(7) of the Planning and Development Regulations 2001 (as amended), the prospective applicant is hereby notified that, in addition to the requirements as specified in articles 20A, 22 and 23 the following specific information should be submitted with any application for permission:

1. A statement on how the development has considered and incorporated placemaking and how the proposal would respect, reflect or contribute to the character and vibrancy of the area and how the development would deliver or contribute towards a quality, sustainable residential environment and public realm areas with a focus on accessibility, connectivity and permeability.

2. A comprehensive cultural heritage assessment in relation to archaeology, built heritage and cultural heritage legacy should be submitted, ensuring that all details, reports and documentation for same are fully up to date and relate entirely to the proposed development.

3. A detailed schedule of accommodation demonstrating compliance with the relevant residential/housing standards.

4. Detail of areas intended to be taken in charge by the local authority, including any surface water management features ((SUDS) within such areas.

5. The application should include a detailed rationale for the proposed residential density and housing mix having regard to the provisions of the City Development Plan and relevant national and regional planning policy including the 'Sustainable and Compact Settlements Guidelines for Planning Authorities, 2024', 'Urban Design Manual', The 'Design Standards for New Apartments – Guidelines for Planning Authorities' (2025) and the 'Urban Development and Building Heights – Guidelines for Planning Authorities' (2018).

6. Consideration of the proposals to address the following Conservation related requirements (as set out in the Conservation Report attached in Appendix C):

    a) Consideration should be given to the omission of Block C entirely.

    b) Consideration should be given to the reduction in height of Block D from 4 storeys to 3 storeys (including lowering the 3-storey section to 2 storeys).

    c) Consideration should be given to reducing Block E in height from 5 storeys to 4 storeys.

    d) Consideration should be given to ensuring that the roof shade/ colour of Blocks D & E is subtle to reduce the visual dominance of these structures particularly in wider views.

e) Consideration should be given to ensuring both summer and winter views are provided, and each view point is marked on the plan. Views should also ensure Block E is visible in a closer-range view.

7. Consideration of the proposals to address the following Architecture related requirements (as set out in the Architects Report attached in Appendix C):

   a) Outside of conservation and heritage considerations, in terms of urban and architectural design Block C is considered to be an appropriate edge treatment to the parkland in terms of height and architectural expression. However, the triangular form is such that it encroaches to a large extent into the existing parkland, and when combined with the associated vehicular access and parking the impact on the park is significant. Considered in terms of placemaking – an aspiration which is a 'central focus' of the CCC Development Plan (sections 11.6-11.12) - the impact of the loss of mature trees and the introduction of the vehicle infrastructure deep into the parkland is considered as having an undue negative effect.

      Whilst the quality of the architectural design meets the criteria described, the site strategy is such that it will diminish the character of the space which is established by way of the impressive landscaping.

      Consideration should be given to a revision of the proposed development to reduce the footprint of Block C, perhaps to a more linear form, in order to retain a greater number of established trees.

   b) Consideration should be given to minimising the extent of vehicular infrastructure extending to Block C.

   c) Consideration should be given to reducing the overall height of Block E by a single storey, and redistributing the accommodation so as to create a more linear, low-lying singular roof form similar to Block D.

8. Consideration of the proposals to address the following Parks and Recreation related requirements (as set out in the Parks and Recreation Report attached in Appendix C):

   a) It is a long held Council objective that the established woodland/parkland on the site of the former Cork Heritage Park should remain intact to preserve its unique sylvan character and provide passive amenity space rich in biodiversity for residents of any residential development on this site , and for future residents of the South Docklands.

      Block C, and its access road and car park are situated within part of the established woodland and is not considered to be acceptable. It is considered that the encroachment would completely change the character of this sylvan setting in a negative manner. It will involve the felling of many established trees as identified on the landscape drawings and, many more will have to be removed as they will be seriously impacted by construction works, changes in ground levels and water table. The level of high-quality tree loss is significant and not appropriate from an arboricultural perspective. It is considered that the footprint for Block C and its associated carpark should be incorporated into the proposed Public Park.

   b) The Landscape Design Strategy and Masterplan is broadly conceptual, and consideration should be given to detailed submissions on the following landscape areas:
      - Bioretention areas,
      - Tree Pits,
      - Green roofs,
      - planting buffers,
      - play equipment/play zones to be submitted for review.
      - the size and quantities of all plant material will be required.

   c) The size and quantities of all plant material will be required.

   d) Landscape Management and Maintenance schedules will also be required.

9. Consideration of the proposals to address the following Strategic Transport related requirements (as set out in the Strategic Transport Planning Report attached in Appendix C):

   a) The proposed development has included many positive interventions with respect to the active travel infrastructure. To further enhance pedestrian connectivity within the scheme consideration should be given to the following additional measures:

      i. The extension of the footpath on Bessborough Road in front of the existing avenue entrance to Bessborough House. Cork City Council have active plans to improve active travel connectivity at this location and reference to these plans should be made in any updates to the active travel infrastructure at this location.
      ii. The re-instatement of the footpath on the southern side of Bessborough Road where a historical site compound previously existed.
      iii. The widening of the opening serving the new pedestrian access point onto Bessborough Road to a minimum of 2.0 metres and the removal of the gated entrance
      iv. The northern extension of the footpath running to the west of Block E, additionally ensure the footpath width to the west of Block E is a minimum of 2.0 metres
      v. The provision of a footpath to the north of Block B and the sunroom,
      vi. Provide for an informal crossing point between the entrance between the Sun Room and Workshop across to the footpath to the west of Block E, this will require the removal of some planned vegetation at this location.
      vii. The removal of the gates entering the Communal Amenity Area, to ensure unimpeded access to the general public
      viii. Remove the gates to the south of Block A to ensure unimpeded access between the Public Plaza and Public Park Lands.
      ix. Remove the gates at either end of the footpath running to the south east of Block D.
      x. The extent of Creche Playground impacts on the visibility of the New Park Land access route, it would be beneficial to extend the playground either to the northeast or southwest to reduce the depth of the playground.
      xi. Remove the gate to the footpath to the southeast of Block C
      xii. Relocate the proposed pedestrian crossing to directly opposite the footpath leading to the new footbridge.

b) Consideration should be given to the inclusion of some additional cycle parking bays to serve Block E. These spaces do not need to be internalised within the building itself but could be housed in a sperate independent structure externally or attached to the building, which ever option is deemed the most suitable.

c) The proposed quantum of parking proposed as part of the overall development is considered low at 0.39 spaces per apartment considering its location and not withstanding its good access to the Greenway and local bus services. Although, it is acceptable to provide parking at a rate less than the that presented in the Cork City Council Development Plan 2022-2028, the applicant is requested to submit further justification to support a lower parking rate, particularly referencing other similar type developments in the wider city.

10. Consideration of the proposals to address the following Traffic and Transport Assessment related requirements (as set out in the Strategic Transport Planning Report attached in Appendix C):

    a) In relation to Traffic Generation, the volume of traffic generation presented seems on the low side and should be revisited based on the data obtained from the adjacent Dara Park development, as noted in the submitted documentation.

    b) In relation to Traffic Distribution, the final submitted Traffic and Transportation Assessment should present a distribution profile reflecting on the existing distribution of traffic from the area.

    c) In relation to Traffic Assignment the submitted transportation assessment would benefit from presenting the projected increase in traffic along each link/ junction within the study area to allow for ease of comparison between the 'with' and 'without' development scenarios.

11. Consideration of the proposals to address the following Drainage related requirements (as set out in the Drainage Report attached in Appendix C):

    a) The applicant is requested to provide further consideration of, and possible amendment to, the documents and/or design proposals in respect of the proposed surface water management arrangements of the development, with particular focus on the following:

        - A clear drainage strategy for the site (Drainage Impact Assessment), detailed in an engineering or infrastructure report.

        - A dedicated storm water drainage drawing, showing the complete drainage network including all the contributing SuDS features (green roofs, rainwater harvesting, swales, tree pits etc.) and discharge location.

        - Full designs and calculations for the drainage network, including each of the SuDS features, detailing their infiltration, storage or attenuation contribution to limiting site run-off.

        - Full details of any/all attenuation tanks to submitted to, and to be agreed and approved by the Drainage Section.

        - Access to attenuation tanks to be provided on both the upstream and downstream sides of the tank. Final access arrangements to be agreed and approved by the Drainage Section.

        - All soakaways shall be designed in accordance with BRE Digest 365 or similar as approved by the Drainage Section of the Planning Authority. Soakaways are to be located a minimum of 5m away from buildings and 3m from property boundaries.

        - Permeable paving is not permitted in public areas to be taken in charge. It can be included within private properties but its contribution to reducing the storm water run-off should not be considered.

        - The drainage strategy for the site must also consider and outline how the drainage network will be operated and maintained. In particular, how SuDS features will be accessed and maintained safely (i.e. attenuation tanks).

        - Upon completion, the Applicant shall submit a SuDS Assessment Report based on the as-constructed development. This report shall include drainage layouts, drawings, details, calculations and confirm the discharge rate from the development.

    b) The applicant is requested to refer to the following documents:

        - *Nature Based Management of Urban Rainwater and Urban Surface Water Discharges* - issued by the Department of Housing, Local Government and Heritage.

        - *Implementation of Urban Nature-Based Solutions Guidance Document for Planners, Developers and Developer Agents* – issued by LAWPRO.

12. Consideration of the proposals to address the following Infrastructure related requirements (as set out in the Infrastructure Report attached in Appendix C):

    a) Cork City Council will be delivering new footpaths and a bi-directional cycle lane on Bessborough Road. As part of this the existing mini-roundabout is to be removed and replaced with priority T junctions.

    A new footpath will be built eastwards from the entrance to Bessborough estate to link up with the footpath on the southern side of Bessborough Farm Road.

    The existing zebra crossing and footpath on the northern side of Bessborough Road will be removed. This work is construction in late 2026 or into 2027.

    The applicant is requested to ensure that the proposed development will take the above into consideration and be compatible with same.

    b) The proposed development adjoins the Passage Railway Greenway and includes for a new cycle/pedestrian bridge over the greenway connecting into the existing greenway connection ramp at Mahon. Consideration should be given to ensuring that the proposed bridge integrates safely with the present greenway and does not inhibit the development of the LRT. The applicant is requested to liaise with

Cork City Council's Infrastructure Directorate prior to submission of a planning application to agree the details of the proposed cycle/pedestrian bridge and connection.

13. The applicant is requested to prepare an independent Quality Audit which should include:

    - Road Safety Audit
    - Access Audit
    - Walking Audit and
    - Cycle Audit

    These should be carried out in accordance with the Design Manual for Urban Roads & Streets (DMURS) Guidance and TII (Transport Infrastructure Ireland) standards and should be submitted as part of the documentation for any planning application.

14. Consideration of the proposals to address the following Biodiversity related requirements (as set out in the Biodiversity Report attached in Appendix C):

    a) The applicant is to submit a biodiversity enhancement section in the documentation proposed to be submitted (EIAR, etc...) to highlight providing nesting opportunities for a wide variety of breeding bird species, provide roosting boxes for the bat species, hibernacula for hedgehogs and reptiles.

    b) The applicant is requested to ensure that any wildflower seeds should be of local provenance and to follow the All-Ireland Pollinator Plan.

    c) The applicant should submit details on the Root Protection Zones for the trees that are remaining close to the car parking spaces for the proposed apartment blocks C & D, including details on how these trees will be protected as per British standard BS5837:2012.

    d) In respect of tree retention, land development and ecological corridors, the Cork City Development Plan 2022-2028 includes the following:

        - An objective to support the retention of existing trees and the planting of new trees as part of new developments (Objective 6.5d);

        - An objective to discourage development proposals necessitating the removal of extensive amounts of trees or hedgerows (Objective 6.9);

        - The text of the plan further establishes that mature trees and hedgerows shall be identified at the initial stages of the planning process and used to guide site layout and design (Para. 11.212) '*To help protect the city's character, all existing green and blue infrastructure (e.g. mature trees, hedgerows, watercourses, etc) shall be identified at the initial stages of the planning process and used to guide the site layout and design.*' and that all development proposals are expected to avoid adverse impacts on mature trees (Para 11.224);

        - Objective 10.98 Protection of Natural Landscape notes that the *City Council will endeavour to discourage proposals necessitating the*

removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments.

- The text of the plan conveys that '*Protecting areas in isolation from each other is neither appropriate nor effective. It is important that significant wildlife habitat areas and ecological corridors including rivers and their banks, trees and hedgerows which allow migration of flora and fauna between conservation areas which is essential for the dispersal and genetic exchange of wild species, are protected from inappropriate development and enhanced where possible, working with local stakeholders'*. (Para. 4.204)

In this regard it is noted that there is a significant number of trees being removed to accommodate both apartment blocks C & D. This is not considered to be in line with our Cork City Councils strategic objectives on retention of green infrastructure. The objectives and section above need to be met with the emphasis of landscape design on tree retention and keeping ecological corridors for the fauna on site who utilise the site.

15. Consideration of the proposals to address the following Environment related requirements (as set out in the Environment Report attached in Appendix C):

    a) The applicant is requested to submit a Noise Impact Assessment with any planning application

    b) The applicant is requested to submit a Waste and Operational Management Plan for the development with any planning application

    c) The applicant is requested to submit a Construction and Demolition Waste Management Plan for the development with any planning application

    d) The applicant is requested to submit energy usage proposals and assessment for the proposed development.

16. There should be no interference with, bridging, draining, or culverting of, any adjacent river or any watercourse, its banks, or bankside vegetation to facilitate the proposed development, without the prior approval of IFI. Full details of proposals relating to same should be provided at application stage including reference to the IFI "Guidelines on protection of fisheries during construction works in and adjacent to waters" document.

17. A statement on how the development has considered climate resilience from design to implementation stages.

18. As per Cork City Development Plan Sections 11.271-11.273, a Scheme Sustainability Statement should be submitted on how the development has considered climate mitigation and adaptation from design to implementation to operational stages. Carbon reduction, renewable energy on site and electric charging points for cars and bikes should be included within statement. Cork City Development Plan Objective 2.11 Low Carbon Economy and Chapter 11 Climate Action and Environmental Infrastructure should also be considered.

19. The site plans should clearly identify all / any wayleaves or rights of way across the application site in accordance with the requirements of the Planning and Development Regulations, as amended.

20. An Invasive species management plan should accompany the application where such species are identified within the lands.

21. In accordance with section 5(5)(b) of the Act of 2016, as amended, any application made on foot of this opinion should be accompanied by a statement that in the prospective applicant's opinion the proposal is consistent with the relevant objectives of the development plan for the area. Such statement should have regard to the development plan or local area plan in place or, likely to be in place, at the date of the decision of the Board in respect of any application for permission under section 4 of the Act.

22. The information referred to in article 299B(1)(b)(ii)(II) and article 299B(1)(c) of the Planning and Development Regulations 2001-2022, unless it is proposed to submit an EIAR at application stage.

23.

a) An Appropriate Assessment report to assess the impact of the proposed development on the Natura 2000 conservation sites and look at the in-combination impacts of surrounding developments have on the Natura 200 sites.

b) A Natura Impact Statement should the proposed development be screened in to have a significant impact on the Natura 2000 sites.

c) An Ecological Impact Assessment (EcIA) to include all relevant surveys including the additional information recommended by the Biodiversity Officer (See Report in Appendix C) i.e. breeding bird surveys.

d) Any necessary alterations to the scheme arising from the surveys and information to be provided above including biodiversity enhancements as recommended by the Biodiversity Officer (See Report in Appendix C).

24. In accordance with Article 22 (2A)(b), of the Planning and Development Regulations 2001 (as amended), the applicant shall include, as part of a full LRD Application, a statement of response to the issues set out in this opinion.

Note: All documents should be in a format which is searchable.

PLEASE NOTE:
Under sections 32E and 247(3) of the Planning and Development Act 2000 (as amended), neither the carrying out of pre-application consultations nor the taking place of an LRD meeting and the provision of an LRD opinion (where applicable) shall prejudice the performance of the planning authority of its functions under this Act or any Regulations under this Act or any other enactment and cannot be relied upon in the formal planning process or in legal proceedings.

- Appendix 3.3- Arboricultural Assessment Phase 1 ‘The Farm’ Report by ArboCare

Arboricultural Impact Assessment

Prepared for:

ESTUARY VIEW ENTERPRISES 2020 LTD

Proposed site:

Proposed LRD Residential Development ('The Farm'), Bessborough House, Co. Cork. (Phase 2)

Prepared by:

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1 Summary

1.1 This arboricultural report has been commissioned by ESTUARY VIEW ENTERPRISES 2020 LTD to provide information to assist with the planning process in relation to the LRD planning application The Farm Bessborough House, Cork.

1.2 This report includes:

- an assessment of the trees, their quality and value in accordance with BS 5837:2012 - Trees in relation to design, demolition and construction;
- the site context and observations on the trees;
- local planning policies relevant to the consideration of trees on the site;
- the impact of the proposed development upon the tree population in and around the site;
- methods of reducing impacts on trees; and
- measures to be taken to protect trees during the proposed works.

2.0 Introduction

2.1 Instructions

Arbor-Care Ltd (Professional Consulting Tree Service) was retained by ESTUARY VIEW ENTERPRISES 2020 LTD to undertake an on-site inspection and visual condition assessment of all trees could be potentially impacted by the development works within the site extents (Figure 1), the findings of the report will be used to inform design of development works and support a LRD planning application for same.
The objective of the impact assessment was to identify the areas that contained trees, groups of trees, and to ensure where possible that these areas would be retained and to identify the trees that are to be removed to facilitate the development.

The survey commenced on the 20th October 2021. And was updated in November 2025 based on the new layout. The survey concentrated on the area within development area.

The below impact assessment report is based on the British standard *BS 5837:2012 Trees in relation to design, demolition and construction recommendations*, this standard gives recommendations and guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees, including shrubs, hedges and hedgerows, with structures. It sets out to assist those concerned with trees in relation to construction to form balanced judgements. This impact assessment report will be accompanied by an inventory of trees and hedgerows on site and a tree protection plan. The Arboricultural Impact Assessment and a tree protection plan was prepared for the site identifying trees that may be impacted on by the proposed development based on the proposed design.

2.2 Methodology

An initial tree survey and visual condition assessment was on the 20th October 2021 and updated in November 2025. The purpose of this report and in accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction*. *Recommendations* only trees with diameters of 75mm or greater were surveyed. Also in accordance with section 4.4.2.3 of the British standard document where trees formed obvious groups these were assessed and recorded as groups. All trees were individually tagged with a metal disc. This was placed on the northern side of the tree where practical.

Section 4.4.2.3 of BS 5837: 2012 states:

Trees growing as groups or woodland should be identified and assessed as such where the arboriculturist determines that this is appropriate. However, an assessment of individuals within any group should still be undertaken if there is a need to differentiate between them, e.g. in order to highlight significant variation in attributes (including physiological or structural condition).

NOTE: The term "group" is intended to identify trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture), in respect of each of the three subcategories.

The survey concentrated primarily on the significant trees/ groups located within and adjacent to the proposed development area and has been based on the topographical survey plan provided. The objective of this survey was to gather information regarding the trees within or adjacent to the development area and the impact the proposed scheme may have on the trees. **Please refer to Appendix A for the tree inventory**.

Significant trees can be equated as those trees whose visual importance to the surrounding area are sufficient to justify special efforts to protect/preserve and whose loss would have an irremediable adverse impact on the local environment. Significance can also be placed depending on the trees age, another variable to imply significance can be the aesthetic merit of the tree based on its unusual size, intrinsic physical features or outstanding appearance or occurring in a unique location or context, and thus provides a special contribution as a landmark or landscape feature.

All above parts of the trees were visually examined. Tree diameters (DBH) were estimated at 1.5 meter above grade as per standard arboricultural practice. Tree height was measured with the use of a clinometer (Where practical). A generalised system was employed to describe the overall health of the trees. The system uses a three tier rating scale with the following descriptors:

Specimen condition 3-tier rating system

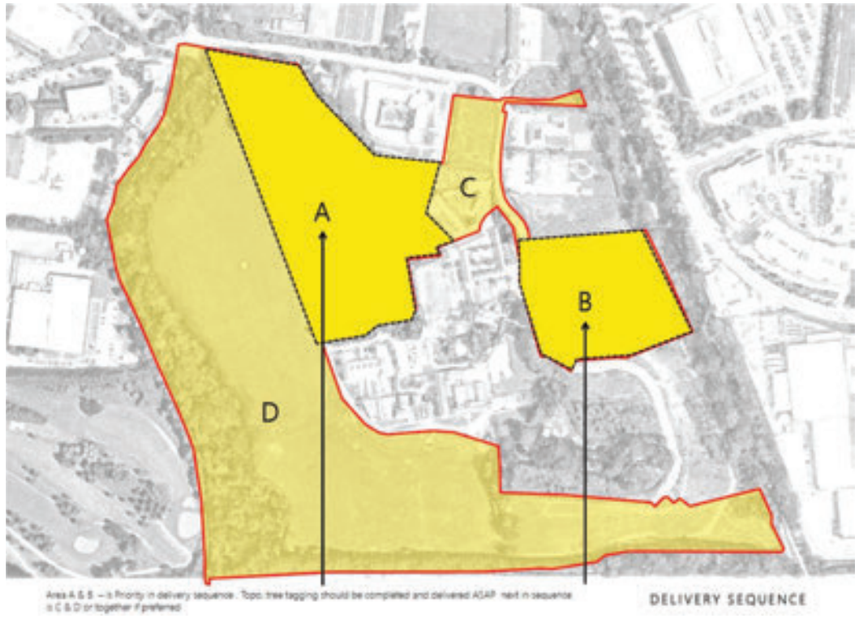
- Poor- 1-30%
- Fair- 31-60%
- Good- 61-100%

3.0 Initial Tree Survey Overview

A total of 305 trees were surveyed. The surveyed trees include a mixture of semi-mature to large mature parkland trees.

Figure 1.0 Proposed site.

Survey area for The Farm is highlighted as area A and C



3.1 The Trees.

A total of 373 trees were surveyed. The surveyed trees include a mixture of semi-mature to large mature parkland trees.

A breakdown of the Tree Categories on site as per BS 5837 2012 is set out in the table below:

Category	Quantity	Category %
A-Tree of high quality	66	18%
B-trees of good quality	234	63%
C (Low quality or trees less than 75mm diameter)	63	16%
U (remove due to poor condition)	10	3%
Total Trees surveyed	373	100%

4.0 Statutory and Non-Statutory Designations

The National Planning Framework (NPF) seeks to ensure that new development is sustainable and underlines the importance of Green Infrastructure, of which trees form an integral part. This encompasses recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate change adaption. The NPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity.

The site is located within the jurisdiction of Cork City Council. The Local Planning Authorities have a statutory duty to consider both the protection and planting of trees when considering planning applications. The potential impact of development on all trees (including those not protected by a Tree Preservation Order or other statutory designation) is therefore a material consideration. I have reviewed *Cork City County Development Plan 2022-2028 Tree Preservation Orders (TPO's)* . There are no TPO's identified within the development site.

5.0 The Proposed Development (figure 2)

Development Description

The proposed development provides for the demolition of 10 no. existing agricultural buildings /sheds and log cabin structure and the construction of 140 apartments over 2 no. retained and repurposed farmyard buildings and 3 no. new blocks of 3-5 storeys in height. The development will consist of 1 no. 3-bedroom apartments, 69 no. 2-bedroom apartments, and 70 no. 1-bedroom apartments, and the refurbishment, amalgamation and change of use of 3 no. agricultural buildings to provide communal

facilities. Provision is made for a creche at ground floor level in Building D, and shared communal facilities including a resident's gym, workspace, lounge, function room, library, lobby and concierge facilities across buildings A, B, D and E. Building management facilities including plant and storage areas are provided across all apartment buildings. The proposed development includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas. The development includes new pedestrian/cycle path infrastructure to the north of Bessborough Estate with new archway access point in the estate wall with pedestrian crossing tying into the local footpath network.

The development includes a publicly accessible parkland, including restoration of its historic pathways. Ancillary site works to include provision of a substation, playground and outdoor amenity spaces, landscaping, 58 no. car parking spaces, 5 no. motorbike spaces, 330 no. bicycle parking spaces, bin stores and public lighting. Vehicular access to the proposed development will also be provided via existing access road off the Bessborough Road.

Figure 2. The Proposed Development

6.0 Arboricultural Impact Assessment

This impact assessment sets out the likely principal direct and indirect impacts of the Proposed Development on the trees on or immediately adjacent to the Site and suitable mitigation measures to allow for the successful retention of significant trees or to compensate for trees to be removed, where appropriate.

A brief summary of trees to be removed, tree works and incursions related to the Proposed Development are detailed within the table below.

Table 1: Schedule of trees to be removed to accommodate the design (To be read in conjunction with Appendix 1 and the Tree Protection Plan

Tree number	Species	Age Class	Tree category
6902	Birch	Mature	B2
6907	Sycamore	Mature	B2
6908	Sycamore	Mature	B2
6914	Sycamore	Mature	B2
6923	Eucalyptus	Mature	B2
6924	Eucalyptus	Mature	B2
6925	Elm	Mature	B2
6926	Sycamore	Mature	B2
6930	Birch	Mature	A2
6931	Scots pine	Mature	A2
6934	Turkey oak	Mature	A2
6935	Yew	Mature	B2
6938	Cedar	Mature	A2
6940	Sycamore	Mature	B2
6941	Eucalyptus	Mature	B2
6943	Ash	Mature	U
6944	Eucalyptus	Mature	B2
6945	Eucalyptus	Mature	A2
6946	Ash	Mature	U
6947	Monterey cypress	Mature	B2
6948 x 2	Bay	Mature	B2
6950	Elm	Mature	B2
6951	Eucalyptus	Mature	A2

6958	Beech	Mature	B2
6959	Monterey cypress	Mature	B2
6960	Ash	Mature	U
6961	Whitebeam	Mature	B2
6964	Eucalyptus	Mature	B2
6965	Eucalyptus	Mature	B2
6967	Eucalyptus	Mature	A2
6968	Bay	Mature	B2
6969	Sycamore	Mature	B2
6970	Sycamore	Mature	B2
6974	Sycamore	Mature	B2
6975	Cedar	Mature	A2
6987	Silver birch	Mature	B2
7008	Lime	Mature	B2
7009	Lime	Mature	B2
7086	Elm	Mature	U
7098	Cherry	Mature	U
T1	Sycamore	Mature	B2
T2	Sycamore	Mature	B2
T5	Ash	Mature	B2
6832	Ash	Mature	B2
6833	Horse chestnut	Mature	B2
6834	Oak	Mature	A2
6835	Holly	Early-mature	B2
6942	Bay	Mature	B2

Total tree removal to facilitate the development= 49

Table 1A: Schedule of trees to be removed due to their poor condition (To be read in conjunction with Appendix 1 and the Tree Protection Plan

Tree number	Species	Age Class	Tree category
6845	Elm	Mature	U
6894	Ash	Mature	U
6903	Lawson cypress	Mature	C2
6905	Ash	Mature	U
6909	Monterey cypress	Mature	C2
6915	Lawson cypress	Mature	C2
6932	Ash	Mature	C2
6933	Ash	Mature	C2
6936	Ash	Mature	C2
6937	Larch	Mature	C2
6939	Bay	Mature	C2
6963	Beech	Mature	C2
6966	Ash	Mature	C2
6991	Sycamore	Mature	C2
6993	Cherry	Mature	C2
7015	Lawson cypress	Mature	C2
7067	Monterey cypress	Mature	C2
7074 x 4	Sitka spruce	Mature	C2
7082	Ash	Mature	C2
7104	Silver birch	Mature	C2
7105	Lawson cypress	Mature	C2
T3-T4 x 4	Sycamore	Saplings	C2

Total tree removal based on condition =28

7.1 The arboricultural impact of the proposed development on the site will be low. It is proposed to remove 49 trees out of a total of 373 trees to facilitate the scheme. A further 28 tree have been proposed to be removed based on their poor conditions. A new planting scheme of site appropriate trees will enhance the local arboreal footprint.

Of the trees to be removed to accommodate the proposed design, these consist of 9 no. category A trees, 35 no. category B plus 0 no. category C trees and 5 no. category U trees.

In accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction. Recommendations.,* Category A represents trees of a high quality and value, "*in such a condition as to be*

able to make a substantial contribution. (A minimum of 40 years is suggested).” Category B signifies those trees *of a “moderate value and in such a condition as to be able to make a substantial contribution (A minimum life expectancy of 20 yrs is suggested*).” Category C signifies those trees *of “a low quality and value that are currently in an adequate condition to remain until new planting could be established (A minimum life expectancy of 10yrs is suggested*).. Category U signifies those trees ‘’*that are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management’’.*

7.2 **Arboricultural works** – Aside from tree removals , no further tree remedial works have been identified at this stage

7.3 Following the completion of the development, a tree condition assessment should be carried out on all retained trees for health and safety purposes.

7.4 Tree protection measures - All retained trees and hedgerows can be successfully protected during the proposed development by using robust fencing which complies with the recommendations outlined within BS5837:2012.

7.5 No materials or equipment other than those required to install tree protection will be delivered to the site until all fencing is in place.

7.6 For details of the tree protection measures required during construction, please refer to the Tree Protection Plan.

7.7 Compound area – The proposed site compound area has not yet been designed; however, there is sufficient space available throughout the site to avoid any unnecessary impacts to retained trees, provided the tree protection measures as detailed within this report are carried out.

7.8 Site access – There are no site access issues

7.9 Daylight and sunlight levels - Shading by trees has been assessed and is not considered a significant issue in relation to this proposal.

7.10 Drainage and services – All new service runs should be located outside the RPAs of retained trees to avoid impacting their condition. If it is found necessary to locate services within tree RPAs, it is recommended that these works are carried out under arboricultural supervision. Methods of work should follow the recommendations in the NJUG guidance. BS5837 (2012) recommends the NJUG guidance as a normative reference to be used in these circumstances.

7.11 Boundary treatments – None required

7.12 Any working operation within the RPAs of retained trees must be carried out manually using hand tools only. Fencing posts must be positioned at least 50 cm from the outer stems of each retained tree in order to allow for future incremental stem growth and to avoid structural roots during excavation works. The excavation for pits to install posts will be carried out using hand tools only. All roots above 25mm in diameter will be retained within the pits or alternative locations which do not contain roots above 25mm will be found. All fence post pits will be lined with 1000-gauge polythene to prevent phytotoxic effects of cement products impacting trees. The final location of the fence should be agreed by the arboricultural consultant prior to works commencing.

7.13 Landscape operations - Landscaping operations will typically take place at the end of the construction period. These works will normally require the removal of protective fencing to facilitate access for works. There is a risk that plant and machinery may damage soil structure where tree roots are growing. These risks can be managed by maintaining good professional standards of work and working to a method statement. The principle of avoiding soil disturbance or changes in levels within the RPAs of retained trees should be followed unless arboricultural advice has been sought.

Arboricultural mitigation

7.14 A landscape plan may form part of the proposed works has been designed as part of the proposal and may include a number of new high-quality tree. The proposed planting will mitigate the loss of trees and hedgerows on site (if so determined) and will have a positive impact on local tree population. The number trees proposed to be planted will ensure that local canopy cover will gradually increase over the years and surpass the existing canopy cover within this area. A greater diversity of tree species has also been selected and will ensure that the tree population is less vulnerable to the risks posed by climate change and pests and diseases in the future.

Proposal in relation to local planning policy

8.2 The proposed development complies with local planning policy as it relates to trees. A tree survey has been carried out in accordance with best practice and where possible trees have been retained and can be successfully protected during construction.

8.3 A landscape plan which includes new high quality tree planting may form part of the proposal. New planting will mitigate the loss of trees and enhance the visual appearance of the site in the future. Please review the landscape plan for further information

Conclusion

8.4 The proposal has been assessed in accordance with BS5837:2012 and special working methods have been recommended to minimise tree impacts.

8.5 Retained trees have been assessed and can be successfully protected during development by following the information provided within this report and adhering to industry best practice.

8.6 Provided the recommendations and methods of work, as outlined within this report, are adhered to, the proposed development can be successfully carried out without having a negative impact on the character or appearance of the surrounding landscape.

Recommendations

9.1 The proposal should be carried out in accordance with the recommendations outlined within this report.

9.2 The positioning of tree protective barriers should be installed as detailed within the Tree Protection Plan.

9.3 Site supervision should be carried out by an arboricultural consultant at key stages of the project to ensure that retained trees are successfully protected during the development. Details of supervision are included within the Arboricultural Method Statement at Section 2 of this report

Appendix A: Key to Abbreviations Used in the Survey

Ref No	Specific identification number given to each tree or group. T=Tree/H=Hedge/G=Group/W=Woodland/S=Shrub.	
Tag No.	Tree marked with individual tree tag of this reference number on site.	
Species	Common name followed by botanical name shown in *italics*	
RPA	Root Protection Area (As defined by BS5837)	
Stem diameter	Diameter of main stem, measured in millimetres at 1.5 m above ground level. (MS = Multi-stem tree measured in accordance with BS5837 Annexe C)	Av / Average: indicates an average representative measured dimension for the group or feature
Spread	The width and breadth of the crown. Estimated on the four compass points in metres.	
Crown clearance	The estimated height (in metres) above ground level of the lowest significant branch attachments.	
#	Estimated dimensions	
*	Indicates estimated position of tree (not indicated on topographical survey).	
P	Privately owned tree (e.g. tree not located in the public highway or adjacent public land).	
Category	Categorisation of the quality and benefits of trees on Site as per Table 1 and 2 of BS5837:2012. 1=Arboricultural quality/value 2=Landscape quality/value 3=Cultural quality/value (including conservation)	
	A=High quality/value 40yrs+ (light green). B=Moderate quality/value 20yrs+ (mid blue) C=Low quality/value min 10yrs/stem diameter less than 150mm (grey). U=Unsuitable for retention (dark red).	
Life stage	**Young (Y):** Newly planted tree 0-10 years. **Semi-Mature (SM):** Tree in the first third of its normal life expectancy for the species (significant potential for future growth in size). **Early Mature (EM):** Tree in the second third of its normal life expectancy for the species (some potential for future growth in size) **Mature (M):** Tree in the final third of its normal life expectancy for the species (having typically reached its approximate ultimate size). **Over Mature (OM):** Tree beyond the normal life expectancy for the species. **Veteran (V):** Tree which is of interest biologically, aesthetically or culturally because of its condition, size or age.	
Structural condition	**Good:** No significant structural defects **Fair:** Structural defects which can be resolved via remedial works. **Poor:** Structural defects which cannot be resolved via remedial works. **Dead:** Dead.	
Physiological condition	**Good:** Normal vitality including leaf size, bud growth, density of crown and wound wood development. **Fair:** Lower than normal vitality, reduced bud development, reduced crown density, reduced response to wounds. **Poor:** Low vitality, low development and distribution of buds, discoloured leaves, low crown density, little extension growth for the species. **Dead:** Dead **Fair/Good** = Indicates an intermediate condition **Fair – Good** = Indicates a range of conditions (e.g. within a group)	
Preliminary management recommendations	Works identified during the tree survey as part of sound arboricultural management, based on the current context of the Site (where relevant reference has been made to tree management based on the potential future context of the site).	
Works to facilitate the development	Tree works identified as necessary to facilitate the Proposed Development following a desk top analysis of the proposals in relation to tree constraints.	

Appendix A: Tree Survey Schedule

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6832	Ash	M	400	22	N=4 S=4 E=4 W=4	5m	Good	A mature multi-stemmed Ash displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the bridge	Remove	B2	
6833	Horse chestnut	M	320	16	N=2 S=2 E=2 W=	2m	Good	A mature horse chestnut displaying a good overall condition	Remove to facilitate the bridge	Remove	B2	
6834	Common Oak	M	850	24	N=6 S=6 E=6 W=6	2m	Good	A large mature Common Oak displaying over all good condition. This tree has 40+ years remaining.	Remove to facilitate the bridge	Remove	A2	
6835	Holly	EM	180	4	N=2 S=2 E=2 W=2	1m	Good	An early mature Holly displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the bridge	Remove	B2	

Appendix A: Tree Survey Schedule

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters	
6837	*Taxus Baccata Fastigiata* Irish Yew	M	400	14	N=3 S=3 E=3 W=3	2m	Good	A large mature Irish Yew displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	5.0m	
6838	Irish Yew	M	720	16	N=4 S=4 E=4 W=4	1m	Good	A large mature Irish Yew displaying over all good condition. This tree has 40+ years remaining.	No impact	No works required	A2	8.2m	
6839	*Acer Pseudoplatanus* Sycamore	M	600	26	N=6 S=2 E=4 W=4	3m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	7.0m	
6840	*Laurus Nobilis* Bay	M	300	14	N=2 S=2 E=2 W=2	2m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining.	No impact	No works required	B2	4.0m	
6841	Bay	M	300	14	N=2 S=2 E=2 W=2	2m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m	
6842	Bay	M	300	14	N=2 S=2 E=2 W=2	2m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2		

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6843	*Tilia* Lime	M	600	16	N=4 S=4 E=4 W=4	1.5m	Good	A mature Lime displaying over all good condition. This tree has 40+ years remaining.	No impact	No works required	B2	7.0m
6844	Bay	M	300	14	N=2 S=2 E=2 W=2	2m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining.	No impact	No works required	B2	4.0m
6845	Elm	M	400	18	N= S= E= W=		Poor	This tree is dead. It is partially uprooted and is located adjacent to the road so is a hazard	No impact	Remove	U	
6846	Sycamore	M	500	20	N=3 S=3 E=3 W=3	4m	Good	A large mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
6847	Irish Yew	M	750	16	N=4 S=4 E=4 W=4	2m	Good	A large mature multi-stemmed Irish Yew displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	8.5m
6848	Lime	M	650	18	N=4 S=4 E=4 W=4	4m	Good	A large mature Lime displaying over all good condition. This tree has 40+ years remaining.	No impact	No works required	B2	7.5m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6849	*Fagus* Beech	M	400	16	N=3 S=3 E=3 W=3	3m	Good	A large mature Beech displaying over all good condition.	No impact	No works required	B2	5.0m
6850	*Fraxinus* Ash	M	600	22	N=4 S=4 E=4 W=4	4m	Good	A large mature co-dominant Ash displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	7.0m
6851	Beech	M	700	24	N=4 S=4 E=4 W=4	4m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	8.0m
6852	*Quercus Ilex* Holm Oak	M	950	18	N=6 S=6 E=6 W=6	3m	Good	A large mature Holm Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	10.5m
6853	Beech	M	620	24	N=4 S=4 E=4 W=4	2m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining.	No impact	No works required	A2	7.2m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6854	*Quercus Cerris* Turkey Oak	M	600	24	N=4 S=4 E=6 W=6	4m	Good	A large mature Turkey Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	7.0m
6855	Sycamore	M	500	24	N=3 S=3 E=3 W=3	6m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	6.0m
6856	Beech	M	600	24	N=4 S=4 E=4 W=4	2m	Good	A mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	7.0m
6857	Beech	M	440	24	N=3 S=3 E=3 W=3	3m	Good	A mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	5.4m
6858	Beech	M	440	24	N=3 S=3 E=3 W=3	3m	Good	A mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	5.4m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6859	Beech	M	700	26	N=4 S=4 E=6 W=6	2m	Good	A mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	8.0m
6860	Beech	M	960	28	N=6 S=8 E=6 W=6	3m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	10.6m
6861	Beech	M	800	24	N=6 S=3 E=4 W=4	4m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	9.0m
6862	Turkey Oak	M	700	30	N=6 S=6 E=6 W=6	4m	Good	A large mature Turkey Oak displaying over all good condition. This tree has 40+ years remaining. This tree is a fantastic specimen	No impact	No works required	A2	8.0m
6863	*Aesculus Hippocastanum* Horse Chestnut	M	600	24	N=4 S=4 E=4 W=4	3m	Good	A large mature Horse Chestnut displaying over all good condition. This tree has 40+ years remaining.	No impact	No works required	A2	7.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6864	Holm Oak	M	750	28	N=8 S=8 E=8 W=8	4m	Good	A large mature Holm Oak displaying over all good condition. This tree has 40+ years remaining. This tree is a fantastic specimen	No impact	No works required	A2	8.5m
6865	Sycamore	M	450	26	N=6 S=6 E=6 W=6	4m	Good	A large mature multi-stemmed Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.5m
6866	*Cedrus Atlantica* Blue Atlas Cedar	M	420	18	N=3 S=3 E=3 W=3	1m	Good	A mature Blue Atlas Cedar displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.2m
6867	Beech	M	900	30	N=8 S=8 E=8 W=8	3m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining. This tree is a fantastic specimen	No impact	No works required	A2	10.0m
6868	*Populus Tremuloides* Trembling Aspen	M	750	30	N=3 S=3 E=3 W=3	10m	Good	A large mature Trembling Aspen displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	8.5m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6869	*Populus Alba* White Poplar	M	750	30	N=4 S=4 E=4 W=4	3m	Good	A large mature White Poplar displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	8.5m
6870	White Poplar	M	750	30	N=4 S=4 E=4 W=4	3m	Good	A large mature White Poplar displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	8.5m
6871	Ash	M	650	28	N=4 S=4 E=4 W=4	3m	Good	A large mature co-dominant Ash displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	7.5m
6872	Sycamore	M	650	26	N=4 S=4 E=6 W=6	3m	Good	A large mature co-dominant Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	7.5m
6873	*Ilex* Holly	M	300	10	N=3 S=3 E=3 W=3	1m	Good	A mature multi-stemmed Holly displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6874	*Robinia Pseudoacacia* Robinia	M	420	22	N=4 S=4 E=4 W=4	3m	Good	A large mature Robinia displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	5.2m
6875	Sycamore	M	420	24	N=4 S=4 E=4 W=4	3m	Good	A mature multi-stemmed Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.2m
6876	Sycamore	M	420	26	N=4 S=4 E=4 W=4	5m	Good	A mature multi-stemmed Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.2m
6877	Sycamore	M	500	24	N=4 S=4 E=4 W=4	4m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	6.0m
6878	Sycamore	M	500	24	N=4 S=4 E=4 W=4	4m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	6.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6879	Sycamore	M	500	24	N=4 S=4 E=4 W=4	4m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	6.0m
6880	Sycamore	M	700	22	N=4 S=4 E=4 W=4	3m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	8.0m
6881	Holly	M	300	10	N=3 S=3 E=3 W=3	1m	Good	A mature multi-stemmed Holly displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
6882	Beech	M	800	26	N=4 S=4 E=4 W=4	5m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	9.0m
6883	Sycamore	M	900	26	N=6 S=6 E=6 W=6	1.5m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	10.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6884	Sycamore	M	420	24	N=4 S=4 E=4 W=4	3m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.2m
6885	*Castanea Savita* Sweet Chestnut	M	700	22	N=4 S=4 E=4 W=4	1m	Good	A large mature Sweet Chestnut displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	8.0m
6886	Sycamore	M	820	24	N=4 S=4 E=4 W=4	3m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining. There was previous tree surgery work undertaken on the upper canopy of this tree, this is reason for B2 category.	No impact	No works required	B2	9.2m
6887	Sycamore	M	1000	24	N= S= E= W=	4m	Fair	A large mature Sycamore displaying over all fair condition. This tree has been heavily over pruned in the past which has negated its amenity and aesthetic value.	No impact	No works required	C2	11.0m
6888	Sycamore	M	800	24	N=3 S=3 E=3 W=3	4m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	9.0m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6889	Sycamore	M	800	24	N=3 S=3 E=3 W=3	4m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	9.0m
6890	Sycamore	M	1000	26	N=6 S=6 E=6 W=6	3m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	11.0m
6891	Holly	M	300	10	N=3 S=3 E=3 W=3	1m	Good	A mature multi-stemmed Holly displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
6892	Sycamore	M	400	22	N=3 S=3 E=3 W=3	3m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.0m
6893	Sycamore	M	580	26	N=4 S=4 E=4 W=4	3m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	6.8m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6894	Ash	M	680	28	N=6 S=6 E=6 W=6	4m	Poor	A large mature co-dominant Ash displaying over all poor condition. This tree is infested with Honey Fungus (Armillia Mellea), the roots and stability of this tree are compromised, so in the interest of Health & Safety this tree should be removed.	No impact	Remove	U	7.8m
6895	Sycamore	M	420	20	N=2 S=2 E=2 W=2	3m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.2m
6896	Sycamore	M	600	26	N=4 S=4 E=4 W=4	2m	Good	A large mature multi-stemmed Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	7.0m
6897	Sycamore	M	450	18	N=2 S=2 E=2 W=2	3m	Good	A large mature co-dominant Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.5m
6898	Sycamore	M	450	18	N=2 S=2 E=2 W=2	3m	Good	A large mature co-dominant Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.5m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6899 x 2	Sycamore	M	420	20	N=3 S=3 E=3 W=3	2m	Good	Represents 2 mature Sycamore displaying over all good condition. These trees have 40+ years remaining	No impact	No works required	B2	5.2m
6900	Turkey Oak	M	830	28	N=8 S=8 E=8 W=8	3m	Good	A mature Turkey Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	9.3m
6901	Sycamore	M	400	16	N=2 S=2 E=2 W=2	2m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.0m
6902	*Betula Pendula* Silver Birch	M	380	20	N=2 S=2 E=2 W=2	3m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining. Just to note there is a clump of Japanese Knotweed adjacent to this tree.	Remove to facilitate the development	Remove	B2	4.8m
6903	*Chamaecyparis Lawsoniana* Lawson Cypress	M	420	16	N=2 S=2 E=2 W=2	0.5m	Fair	A mature Lawson Cypress displaying over all fair condition. This tree has 20+ years remaining. A tree of low ecological value, recommend for removal and to replace with an appropriate species	No impact	Remove	C2	5.2m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6904	Holly	M	550	10	N=4 S=4 E=4 W=4	1m	Good	A large mature Holly displaying over all good condition. This tree has 40+ years remaining	No impact	Remove	A2	6.5m
6905	Ash	M	950	26	N=4 S=4 E=4 W=4	5m	Poor	A large mature Ash displaying over all poor condition. This tree is in decline, it has a significant Basal Cavity on the northern side and also has a large significant limb that has snapped off on the western side. This tree is in advanced decline and is unsafe so in the interest of Health & Safety this tree should be removed	No impact	Remove	U	
6906	Exotic conifer		420	20	N=3 S=3 E=3 W=3	2m	Good	A large mature exotic conifer . This tree has 40+ years remaining.	No impact	Retain	A2	
6907	Sycamore	M	500	18	N=2 S=4 E=3 W=3	2m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	B2	
6908	Sycamore	M	500	18	N=2 S=4 E=3 W=3	2m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	B2	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6909	*Cupressus Macrocarpa* Monterey Cypress	EM	220	12	N=1 S=1 E=1 W=1	2m	Fair	An early mature Monterey Cypress displaying over all fair condition. This tree has a significant level of dead limbs in the lower third of the canopy. This tree has 10+ years remaining	No impact	No works required	C2	3.2m
6910	Ash	M	450	20	N=4 S=2 E=2 W=2	5m	Good	A mature Ash displaying over all good condition. This tree has 20+ remaining years.	No impact	No works required	B2	5.5m
6911	Sycamore	M	400	18	N=2 S=2 E=2 W=2	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
6912	Sycamore	M	400	18	N=2 S=2 E=2 W=2	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
6913	Ash	M	600	24	N=4 S=4 E=4 W=4	6m	Good	A large mature Ash displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	7.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6914	Sycamore	M	400	20	N=4 S=4 E=5 W=5	4m	Good	A mature co-dominant Sycamore displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	5.0m
6915	Lawson Cypress	M	320	14	N=1.5 S=1.5 E=1.5 W=1.5	2m	Fair	A mature Lawson Cypress displaying over all fair condition. This tree has 20+ years remaining. A tree of low ecological value	No impact	No works required	C2	4.2m
6916	Sycamore	M	320	16	N=2 S=2 E=2 W=2	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m
6917	Sycamore	M	400	18	N=3 S=3 E=3 W=3	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
6918	Sycamore	M	320	16	N=3 S=3 E=3 W=3	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6919	Ash	M	520	26	N=6 S=6 E=6 W=6	4m		A large mature Ash displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	6.2m
6920	Ash	M		24	N=4 S=4 E=4 W=4	3m	Good	A mature multi-stemmed Ash displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
6921	Sycamore	M	450	16	N=6 S=3 E=3 W=3	3m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.5m
6922	Sycamore	M	400	18	N=4 S=4 E=4 W=4	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
6923	*Eucalyptus Globulus* Eucalyptus	M	600	20	N=3 S=3 E=3 W=3	2m	Good	A large mature Eucalyptus displaying over all good condition. This tree is leaning severely to the north. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	7.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6924	Eucalyptus	M	610	28	N=4 S=4 E=4 W=4	6m	Good	A large mature Eucalyptus displaying over all good condition. This tree has 40+ remaining years	Remove to facilitate the development	Remove	A2	7.1m
6925	*Ulmus Glabra* Witch Elm	M	620	20	N=4 S=4 E=4 W=4	2m	Good	A large mature Witch Elm displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	7.2m
6926	Sycamore	EM	280	12	N=2 S=2 E=2 W=2	3m	Good	An early mature Sycamore displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	3.8m
6927	Sycamore	M	600	24	N=4 S=4 E=4 W=4	3m	Good	A large mature Sycamore displaying over all good condition. This tree has an insignificant stem wound located on the western side but it doesn't impact on the overall health of the tree. This tree has 20+ years remaining	No impact	No works required	B2	7.0m
6928	Beech	M	1100	28	N=8 S=8 E=8 W=8	3m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	12.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6929	Sycamore	M	480	12	N=3 S=3 E=3 W=3		Good	A large mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.8m
6930	Beech	M	1200	28	N=8 S=8 E=8 W=8	3m	Good	A large mature Beech displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	12.0m
6931	*Pinus Sylvestrus* Scots Pine	M	500	26	N=4 S=4 E=8 W=3	4m	Good	A large mature Scots Pine displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	6.0m
6932	Ash	M	800		N= S= E= W=	3m	Fair	A large mature multi-stemmed Ash displaying over all fair condition. This tree is in decline in the upper canopy. This tree has 10+ years remaining	No impact	Remove based on its condition	C2	
6933	Ash	M	480	20	N= S= E= W=	4m	Fair	A mature co-dominant Ash displaying over all fair condition. This tree is in advanced decline. This tree has 10+ years remaining	No impact	Remove based on its condition	C2	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6934	Turkey Oak	M	700	26	N=4 S=4 E=4 W=4	3m	Good	A large mature Turkey Oak displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	8.0m
6935	*Taxus Baccata* Yew	M	580	14	N=3 S=3 E=3 W=3	2m	Good	A large mature Yew displaying over all good condition. This tree has suffered some minor stem damage in the upper canopy. This tree has 40+ years remaining	Remove to facilitate the development	Remove	B2	
6936	Ash	EM	200	14	N=2 S=2 E=2 W=2	2m	Fair	An early mature multi-stemmed Ash displaying over all fair condition. This tree is showing signs of decline. This tree has 10+ years remaining	No impact	Remove	C2	
6937	*Larix* Larch	EM	240	14	N=2 S=2 E=2 W=2	2m	Fair	An early mature Larch displaying over all fair condition. This tree has 10+ years remaining	No impact	Remove	C2	
6938	Blue Atlas Cedar	M	460	20	N=3 S=3 E=3 W=3	2m	Good	A large mature Blue Atlas Cedar displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	5.6m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6939	Bay	EM		4	N=2 S=2 E=2 W=2	1m	Fair	An early mature Bay displaying over all fair condition. This tree has been suppressed by the larger surrounding trees. This tree has 10+ years remaining	No impact	Remove	C2	
6940	Sycamore	M	400	16	N=3 S=3 E=3 W=3	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	5.0m
6941	Eucalyptus	M	950	28	N=4 S=4 E=4 W=4	2m	Good	A large mature Eucalyptus displaying over all good condition. This tree has 10+ years remaining	Remove to facilitate the development	Remove	B2	
6942	Beech	M	500	18	N=3 S=3 E=3 W=3	1.5m	Good	A mature Beech displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	B2	
6943	Ash	M	300	14	N=2 S=2 E=2 W=2	2m	Poor	A mature Ash displaying over all poor condition. This tree is in advanced decline.	Remove to facilitate the development	Remove	U	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6944	Eucalyptus	M	400	24	N=3 S=3 E=3 W=3	3m	Good	A mature Eucalyptus displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	5.0m
6945	Eucalyptus	M	850	28	N=6 S=6 E=6 W=6	2m	Good	A large mature Eucalyptus displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	9.5m
6946	Ash	M		14	N=2 S=2 E=2 W=2	1m	Poor	A mature multi-stemmed Ash displaying over all poor condition. This tree is in advanced decline and has severe cankering throughout. This tree has 10-years remaining	Remove to facilitate the development	Remove	U	
6947	Monterey Cypress	M	400	16	N=3 S=3 E=3 W=3	2m	Good	A mature Monterey Cypress displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	5.0m
6948 x 2	Bay	M	300	14	N=2 S=2 E=2 W=2	2m	Good	Represents 2 mature Bay displaying over all good condition. These trees have 20+ year remaining	Remove to facilitate the development	Remove	B2	4.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6949	Monterey Cypress	M	400	16	N=3 S=3 E=3 W=3	2m	Good	A mature Monterey Cypress displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
6950	*Ulmus* Elm	M	800	20	N=3 S=3 E=3 W=3		Poor	A large mature Elm displaying over all poor condition. This tree is dead and it is within falling distance of the parking area so in the interest of Health & Safety this tree should be removed.	Remove to facilitate the development	Remove	U	
6951	Eucalyptus	M	900	28	N=6 S=6 E=6 W=6	2m	Good	A large mature Eucalyptus displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	10.0m
6952	Lawson Cypress	M	480	12	N=2 S=2 E=2 W=2	3m	Fair	A large mature co-dominant Lawson Cypress displaying over all fair condition. This tree has significant Dieback within it. This tree has 10- years remaining	Consider for removal	No works required	C2	5.8m
6953	Bay	M		12	N=3 S=3 E=3 W=3	3m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ remaining	No impact	No works required	B2	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6954	Sycamore	M	380	16	N=3 S=3 E=3 W=3	3m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining. Just to note that there is Japanese Knotweed located within this area.	No impact	No works required	B2	4.8m
6955	Bay	M	250	12	N=3 S=3 E=3 W=3	3m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.5m
6956	*Prunus Avium* Cherry	M	320	16	N=4 S=4 E=6 W=6	3m	Good	A mature co-dominant Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m
6957	Beech	M	480	18	N=4 S=4 E=4 W=4	2m	Good	A large mature co-dominant Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	5.8m
6958	Beech	M	480	18	N=4 S=4 E=4 W=4	2m	Good	A large mature co-dominant Beech displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	B2	5.8m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6959	Monterey Cypress	M	320	14	N=3 S=3 E=3 W=3	2m	Good	A mature multi-stemmed Monterey Cypress displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	4.2m
6960	Ash	M		16	N=3 S=3 E=3 W=3	2m	Poor	A mature co-dominant Ash displaying over all poor condition. This tree has severe Cankering and is in advanced decline.	Remove to facilitate the development	Remove	U	
6961	*Sorbus Aria* Whitebeam	M	380	14	N=3 S=3 E=3 W=3	2m	Good	A mature Whitebeam displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	4.8m
6962	Eucalyptus	M	420	16	N=3 S=3 E=3 W=3	3m	Good	A mature Eucalyptus displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.2m
6963	Beech	M	400	14	N=4 S=3 E=3 W=4	3m	Fair	A mature Beech displaying over all fair condition. This tree has some lower stem damage. This tree has 20+ years remaining	No impact	No works required	C2	5.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6964	Eucalyptus	M	750	22	N=8 S=3 E=3 W=3	2m	Good	A large mature Eucalyptus displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	8.5m
6965	Eucalyptus	M	300	20	N=3 S=3 E=3 W=3	4m	Good	A mature Eucalyptus displaying over all good condition. The lower third of this tree is infested with Ivy. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	4.0m
6966	Ash	EM	240	10	N=3 S=3 E=3 W=3	2m	Fair	An early mature Ash displaying over all fair condition. This tree has 10+ years remaining	Remove based on its condition	Remove	C2	
6967	Eucalyptus	M	900	28	N=6 S=6 E=6 W=6	3m	Good	A large mature Eucalyptus displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	
6968	Bay	M	380	12	N=3 S=3 E=2 W=2	2m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	4.8m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6969	*Acer Purpurem* Purple Sycamore	EM	280	16	N=3 S=3 E=3 W=3	3m	Good	An early mature Purple Sycamore displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	3.8m
6970	Sycamore	EM	280	16	N=3 S=3 E=3 W=3	3m	Good	An early mature Sycamore displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	3.8m
6971	Bay	M	150	8	N=3 S=3 E=3 W=3	0.5m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	C2	2.5m
6972	Cherry	EM	220	12	N=2 S=2 E=2 W=2	3m	Good	An early mature co-dominant Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.2m
6973	Ash	M	750	28	N=6 S=6 E=6 W=6	4m	Good	A large mature multi-stemmed Ash displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	8.5m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6974	Sycamore	M	340	18	N=4 S=4 E=4 W=4	2m	Good	A mature Sycamore displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	B2	4.4m
6975	*Cedrus Deodara* Deodar Cedar	M	500	18	N=3 S=3 E=3 W=3	2m	Good	A mature Deodar Cedar displaying over all good condition. This tree has 40+ years remaining	Remove to facilitate the development	Remove	A2	
6976	Beech	M	580	18	N=6 S=6 E=6 W=6	1m	Good	A large mature multi-stemmed Beech displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	6.8m
6977	Silver Birch	M	300	18	N=3 S=3 E=3 W=3	3m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
6978	Sycamore	M	800	22	N=8 S=8 E=8 W=8	2m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	9.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6979	Turkey Oak	M	750	30	N=8 S=8 E=8 W=8	5m	Good	A large mature Turkey Oak displaying over all good condition. This tree has 40+ years remaining. This tree is a fantastic specimen	No impact	No impact	A2	8.5m
6980	Ash	M	800	26	N=6 S=6 E=6 W=6	3m	Fair	A large mature co-dominant Ash displaying over all fair condition. This tree has significant Including Bark at the main union which is going to increase the trees risk of splitting. This tree also appears to be in decline. This tree has 10-years remaining	no impact	Consider for removal	C2	9.0m
6981	Turkey Oak	M	740	20	N=6 S=6 E=6 W=6	3m	Good	A mature Turkey Oak displaying over all good condition. This tree is a fantastic specimen. This tree has 40+ years remaining	No impact	No impact	Consider for removal	8.4m
6982	Lime	M	600	22	N=6 S=6 E=6 W=6	3m	Good	A mature Lime displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	7.0m
6983	*Sorbus* Mountain Ash	EM	200	4	N=2 S=2 E=2 W=2	3m	Fair	An early mature Mountain Ash displaying over all fair condition. This tree has been suppressed by the larger surrounding trees. This tree has 10+ years remaining	No impact	No works required	C2	3.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6984 x 6	Lawson Cypress	M	340	14	N=4 S=4 E=4 W=4	2m	Fair	A mature Lawson Cypress displaying over all fair condition. This tree has 20+ years remaining. A tree of low ecological value	No impact	No work required	C2	4.4m
6985	Ash	M	500	24	N=6 S=6 E=6 W=6	3m	Good	A large mature Ash displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	6m
6986	Silver Birch	M	300	18	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
6987	Silver Birch	M	240	18	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	3.4m
6988	Sycamore	M	800	24	N=6 S=6 E=6 W=6	3m	Good	A large mature Sycamore displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	9m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6989	Cherry	M	500	16	N=4 S=4 E=4 W=4	2m	Good	A mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6m
6990	*Quercus Robur* Common Oak	M	900	24	N=6 S=6 E=6 W=6	3m	Good	A large mature Common Oak displaying over all good condition. This tree has 40+ years remaining. This tree is a fantastic specimen	No impact	No works required	A2	10m
6991	Sycamore	M	750	24	N=8 S=8 E=6 W=6	2m	Good	A large mature co-dominant Sycamore displaying over all good condition. This tree on the southern stem has a significant infestation of Honey Fungus and the southern stem is in complete Die-back. This tree has 10+ years remaining	No impact	Remove based on its condition	C2	
6992	Common Oak	M	700	24	N=4 S=4 E=4 W=4	2m	Good	A large mature Common Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	8.0m
6993	Cherry	M		10	N=4 S=4 E=4 W=4	0.5m	Fair	A mature Cherry displaying over all fair condition. This tree has been suppressed by the larger surrounding trees. This tree has 10+ years remaining	No impact	Remove based on its condition	C2	

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6994	*Abies Alba* Silver Fir	M	800	28	N= S= E= W=	4m	Good	A large mature Silver Fir displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	9.0m
6995 x 3	Bay	M	200	10	N=2 S=2 E=2 W=2	3m	Good	Represents 3 mature multi-stemmed Bay displaying over all good condition. These trees have 10+ years remaining	No impact	No works required	C2	3.0m
6996	Sycamore	M	380	18	N=2 S=2 E=2 W=2	2m	Fair	A mature Sycamore displaying over all fair condition. This tree is heavily suppressed with Ivy. This tree has 10+ years remaining	No impact	No works required	C2	4.8m
6997	Cherry	M	450	20	N=3 S=3 E=3 W=3	1m	Good	A large mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.5m
6998	Cherry	M		16	N=2 S=1 E=2 W=1	2m	Fair	A mature Cherry displaying over all fair condition. This tree has been suppressed by the larger surrounding trees. This tree has 10+ years remaining	No impact	No works required	C2	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6999	Silver Birch	M	320	18	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m
7000	Silver Birch	M	380	22	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.8m
7001	*Populus Nigra* Lombardy Poplar	M	600	28	N=2 S=2 E=2 W=2	3m	Good	A large mature Lombardy Poplar displaying over all good condition. This tree is within falling distance of the existing car park and driveway entrance. This tree is of low ecological value. This tree is not suited for its location. This tree has 10-years remaining	No impact	Consider for removal	C2	7.0m
7002	Lombardy Poplar	M	600	28	N=2 S=2 E=2 W=2	3m	Good	A large mature Lombardy Poplar displaying over all good condition. This tree is within falling distance of the existing car park and driveway entrance. This tree is of low ecological value. This tree is not suited for its location. This tree has 10-years remaining	No impact	Consider for removal	C2	7.0m
7003	Lombardy Poplar	M	600	28	N=2 S=2 E=2 W=2	3m	Good	A large mature Lombardy Poplar displaying over all good condition. This tree is within falling distance of the existing car park and driveway entrance. This tree is of low ecological value. This tree is not suited for its location. This tree has 10-years remaining	No impact	Consider for removal	C2	7.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7004	Lombardy Poplar	M	600	28	N=2 S=2 E=2 W=2	3m	Good	A large mature Lombardy Poplar displaying over all good condition. This tree is within falling distance of the existing car park and driveway entrance. This tree is not suited for its location. This tree is of low ecological value. This tree has 10- years remaining	No impact	Consider for removal	C2	7.0m
7005	Lombardy Poplar	M	600	28	N=2 S=2 E=2 W=2	3m	Good	A large mature Lombardy Poplar displaying over all good condition. This tree is within falling distance of the existing car park and driveway entrance. This tree is not suited for its location. This tree is of low ecological value. This tree has 10- years remaining	No impact	Consider for removal	C2	7.0m
7006	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has a limb to the east that has broken off and is overhanging on the green area and needs to be removed. This tree has 20+ years remaining.	No impact	Remove broken limb	B2	5.0m
7007	Silver Birch	M	300	20	N=2 S=2 E=2 W=2	3m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7008	Lime	M	400	18	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	5.0m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7009	Lime	M	400	18	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	Remove to facilitate the development	Remove	B2	
7010	*Betula* Birch	M	250	20	N=2 S=2 E=2 W=2	3m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.5m
7011	Lime	M	450	16	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.5m
7012	Lime	M	550	20	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.5m
7013	Silver Birch	M	300	20	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7014	Lime	M	550	20	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7015	Lawson Cypress	M	300	16	N=2 S=2 E=2 W=2	0.5m	Fair	A mature Lawson Cypress displaying over all fair condition. This tree has 20+ years remaining. A tree of low ecological value	No impact	Remove and replace with appropriate species	C2	
7016	Lime	M		18	N=3 S=3 E=3 W=3	1m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7017	Lime	M	500	18	N=3 S=3 E=3 W=3	2m	Good	A large mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
7018	Lime	M	400	16	N=3 S=3 E=3 W=3	3m	Good	A large mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7019	Bay	M	200	14	N=1 S=1 E=1 W=1	0.5m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 10+ years remaining	No impact	No works required	C2	3.0m
7020	Lime	M	420	18	N=3 S=3 E=3 W=3	2m	Good	A large mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.2m
7021	Bay	M	200	14	N=1 S=1 E=1 W=1	0.5m	Good	A mature multi-stemmed Bay displaying over all good condition. This tree has 10+ years remaining	No impact	No works required	C2	3.0m
7022	Lime	M	400	18	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
7023	Birch	M	400	24	N=4 S=4 E=4 W=4	1m	Good	A large mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	A2	5.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7024	Silver Birch	M	360	24	N=3 S=3 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.6m
7025	Lime	M	320	12	N=2 S=2 E=2 W=2	3m	Fair	A mature Lime displaying over all fair condition. This tree has 10+ years remaining	No impact	No works required	C2	4.2m
7026	Holly	M	280	10	N=1 S=1 E=1 W=1	1m	Good	A mature variegated Holly displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.8m
7027	Lime	M	450	18	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.5m
7028	Silver Birch	M	360	24	N=3 S=3 E=3 W=3	3m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.6m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7029	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
7030	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
7031	Silver Birch	M	520	26	N=4 S=4 E=4 W=4	3m	Good	A large mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	A2	6.2m
7032	Birch	EM	180	12	N=2 S=2 E=2 W=2	2m	Good	An early mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	2.8m
7033	Birch	M	380	24	N=3 S=3 E=3 W=3	3m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.8m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7034	Lime	M	400	18	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
7035 x 2	Lime	M	400	16	N=3 S=3 E=3 W=3	3m	Good	Represents 2 mature Lime displaying over all good condition. These trees have 20+ years remaining	No impact	No works required	B2	5.0m
7036	Birch	M	240	20	N=2 S=2 E=2 W=2	2m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.4m
7037 x 2	Sycamore	M	300	14	N=3 S=3 E=3 W=3	3m	Good	Represents 2 mature Sycamore displaying over all good condition. These trees have 20+ years remaining. **Note** – Immediately to the rear of these trees there is a mature Lime with same dimensions as previous Lime (7035) but due to the density of the briars it was not possible to tag this tree.	No impact	No works required	B2	4.0m
7038	Silver Birch	M	360	20	N=3 S=3 E=3 W=3	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.6m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7039	Birch	M	410	24	N=3 S=3 E=3 W=3	3m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.1m
7040	Birch	M	380	22	N=3 S=3 E=3 W=3	3m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.8m
7041	Birch	M	380	22	N=3 S=3 E=3 W=3	3m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.8m
7042	Birch	M	240	20	N=2 S=2 E=2 W=2	2m	Good	A mature Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.4m
7043	Lime	M	520	20	N=4 S=4 E=4 W=4	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.2m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7044	Lime	M	600	22	N=4 S=4 E=4 W=4	3m	Good	A large mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	7.0m
7045	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7046	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7047	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7048	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7049	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7050	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7051	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7052	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7053	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7054	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7055	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7056	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7057	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7058	Silver Birch	M	300	24	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7059	Sycamore	M	320	18	N=4 S=2 E=3 W=3	2m	Good	A mature Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m
7060	Sycamore	M	320	20	N=3 S=3 E=3 W=3	2m	Good	A mature multi-stemmed Sycamore displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m
7061	Oak	M	380	20	N=3 S=3 E=3 W=3	3m	Good	A mature Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	4.8m
7062	Yew	EM		8	N=3 S=3 E=3 W=3	0.5m	Good	An early mature multi-stemmed Yew displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	
7063	Horse Chestnut	M	360	18	N= S= E= W=	1m	Fair	A mature multi-stemmed Horse Chestnut displaying over all fair condition. This tree is showing evidence of decline. This tree has 10- years remaining	No impact	No works required	C2	4.6m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7064	Cherry	M	400	20	N=4 S=4 E=4 W=4	2m	Good	A large mature multi-stemmed Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
7065 – 7066 x 4	Silver Birch	EM	220	18	N=2 S=2 E=2 W=2	2m	Good	Represents a row of 4 early mature Silver Birch displaying over all good condition. These trees have 20+ years remaining	No impact	No works required	B2	
7067	Monterey Cypress	M		12	N=2 S=2 E=2 W=2	1m	Poor	A mature multi-stemmed Monterey Cypress displaying over all poor condition. This tree is in decline and has suffered significant stem damage	No impact	Remove based on its condition	C2	
7068	Silver Birch	M	280	18	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.8m
7069	Silver Birch	M	280	18	N=2 S=2 E=2 W=2	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.8m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7070	*Cedrus* Cedar	M		22	N=4 S=4 E=4 W=4	0.5m	Good	A mature multi-stemmed Cedar displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	
7071	Lime	M	340	16	N=3 S=3 E=3 W=3	1m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7072	Lime	M	500	20	N=4 S=4 E=4 W=4	1.5m	Good	A large mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
7073	Cherry	M	500	14	N=6 S=6 E=6 W=6	2m	Good	A mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
7074 x 8	*Picea Sitchensis* Sitka Spruce	M		18	N=2 S=2 E=2 W=2	1m	Good	Represents 8 large mature Sitka Spruce displaying over all good condition. These are forestry trees and not suitable for this location. These trees have 20+ years remaining	No impact	Remove based on species type	C2	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7075	Silver Birch	M	600	24	N=4 S=4 E=4 W=4	2m	Good	A large mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	A2	7.0m
7076	Cherry	M		18	N=4 S=4 E=4 W=4	1m	Good	A large mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7077	*Acer Platanoides* Norway Maple	M	500	20	N=4 S=4 E=4 W=4	2m	Good	A large mature Norway Maple displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
7078	Norway Maple	M	500	20	N=4 S=4 E=4 W=4	2m	Good	A large mature Norway Maple displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
7079	Lime	M	420	20	N=4 S=4 E=4 W=4	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.2m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7080	*Betula Jacquemonti* Jacquemonti Birch	M	340	18	N=3 S=3 E=3 W=3	1m	Good	A mature Jacquemonti Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.4m
7081	Silver Birch	EM	280	16	N=1 S=1 E=1 W=1	3m	Good	An early mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.8m
7082	*Fraxinus Excelsior* Weeping Ash	EM	260	3	N=2 S=2 E=2 W=2	1m	Fair	An early mature Weeping Ash displaying over all fair condition. This tree has 10+ years remaining	No impact	Remove based on its condition	C2	3.6m
7083	Silver Birch	M	280	18	N=2 S=2 E=2 W=2	1m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.8m
7084	Cherry	M	320	12	N=3 S=3 E=3 W=3	2m	Good	A mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.2m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7085	*Crataegus Monogyna* Hawthorn	M	280	6	N=2 S=2 E=2 W=2	2m	Good	A mature Hawthorn displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.8m
7086	Elm	M	300	12	N=2 S=2 E=2 W=2	1m	Poor	A mature Elm displaying over all poor condition. This tree is dead and should be removed in the interest of Health & Safety	Remove to facilitate the development	No works required	U	
7087	Cherry	M		12	N=4 S=4 E=4 W=4	1m	Good	A mature multi-stemmed Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7088	Norway Maple	M	610	20	N=4 S=4 E=4 W=4	2m	Good	A mature Norway Maple displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	7.1m
7089	Norway Maple	M	610	20	N=4 S=4 E=4 W=4	2m	Good	A mature Norway Maple displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	7.1m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7090	*Malus Domestica* Apple	M		10	N=2 S=2 E=2 W=2	1m	Good	A mature Apple displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7091	Lime	M	560	18	N=4 S=4 E=4 W=4	1m	Good	A large mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.6m
7092	Ash	M	600	22	N=4 S=4 E=4 W=4	1m	Fair	A mature Ash displaying over all fair condition. This tree is showing evidence of decline. This tree has 10+ years remaining	No impact	No works required	C2	
7093	Silver Birch	EM	200	18	N=2 S=2 E=2 W=2	3m	Good	An early mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	3.0m
7094	*Salix Babylonica* Weeping Willow	M	400	18	N=4 S=4 E=4 W=4	1m	Good	A large mature Weeping Willow displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	A2	5.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7095	Silver Birch	M	360	22	N=3 S=3 E=3 W=3	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.6m
7096	Silver Birch	M	360	22	N=3 S=3 E=3 W=3	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.6m
7097	Sycamore	EM		6	N=2 S=2 E=2 W=2	1m	Fair	An early mature Sycamore displaying over all fair condition. This tree is partially uprooted. This tree has 10+ years remaining	No impact	No works required	C2	
7098	Cherry	M	240	6	N=0.5 S=0.5 E=0.5 W=0.5	1m	Poor	A mature Cherry displaying over all poor condition. This tree is in advanced decline.	Remove to facilitate	Remove	U	
7099	Sweet Chestnut	EM	240	8	N=2 S=2 E=2 W=2	1m	Good	An early mature Sweet Chestnut displaying over all good condition. This tree is a good future tree for the site. This tree has 40+ years remaining	No impact	No works required	B2	3.4m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7100	Blue Atlas Cedar	M	400	18	N=4 S=4 E=4 W=4	0.5m	Good	A mature Blue Atlas Cedar displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	5.0m
7101	Cherry	M	500	14	N=6 S=6 E=6 W=6	2m	Good	A large mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	6.0m
7102	Cherry	M	300	10	N=2 S=2 E=2 W=2	1.5m	Good	A mature Cherry displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	4.0m
7103	Common Oak	M	500	18	N=6 S=6 E=6 W=6	2m	Good	A large mature Common Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	6.0m
7104	Silver Birch	EM	200	8	N=0.5 S=0.5 E=0.5 W=0.5	1m	Fair	An early mature Silver Birch displaying over all fair condition. This tree has been suppressed by the larger surrounding trees. This tree has 10+ years remaining	No impact	Remove based on its condition	C2	

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7105	Lawson Cypress	M	400	14	N=2 S=2 E=2 W=2	1m	Fair	A mature Lawson Cypress displaying over all fair condition. This tree has 20+ years remaining. A tree of low ecological value	No impact	Remove based on its condition	C2	
7106	Silver Birch	M	500	24	N=4 S=4 E=4 W=4	1.5m	Good	A large mature Silver Birch displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	6.0m
7107	Silver Birch	M	400	20	N=4 S=4 E=4 W=4	2m	Good	A mature Silver Birch displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
7108	Lime	M		16	N=3 S=3 E=3 W=3	2m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	
7109	Deodar Cedar	M	700	20	N=4 S=4 E=4 W=4	1m	Good	A large mature Deodar Cedar displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	A2	

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
7110	Turkey Oak	EM	380	14	N=3 S=3 E=3 W=3	1.5m	Good	An early mature Turkey Oak displaying over all good condition. This tree has 40+ years remaining	No impact	No works required	B2	4.8m

Appendix 1 **Bessborough House, Co. Cork**

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
T1	Sycamore	M	500	20	N=4 S=4 E=4 W=4	3	Good	A large mature sycamore displaying a god overall condition	Remove to facilitate the development	Remove	B2	
T2	Sycamore	M	500	20	N=4 S=4 E=4 W=4	3	Good	A large mature sycamore displaying a god overall condition	Remove to facilitate the development	Remove	B2	
T3-T4 x 4	Sycamore	EM	240	10	N=1 S=1 E=1 W=1	2	Fair	A row of four self-seed sycamore	No impact	Remove based on condition	C2	
T5	Ash	M	520	24	N=3 S=3 E=3 W=3	4	Good	A large mature sycamore displaying a good overall condition	Remove to facilitate the development	Remove	B2	6.2m
T6	Sycamore	EM	280	12	N=2 S=2 E=2 W=2	2	Fair	An early-mature sycamore	Unknown	No impact	C2	3.8m
1783	Yew	M	550	16	N=4 S=4 E=4 W=4	2	Good	A large mature Yew, fantastic specimen	Unknown	No impact	B2	6.5m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
1784 x 3	Sycamore	M	500	24	N=3 S=3 E=3 W=3	2	Good	A cluster of three mature sycamore	No impact	No works required	B2	6m
1785	Sycamore	M	700	24	N=4 S=4 E=4 W=4	3	Good	A large mature sycamore displaying a god overall condition	No impact	No works required	A2	8m
1786-1787 x 4	Sycamore	M	600	24	N=3 S=3 E=3 W=3	3	Fair	A row of four large mature sycamore	No impact	No works required	B2	7m
1788	Beech	M	420	24	N=3 S=3 E=2 W=3	3	Good	A large mature beech displaying a good overall condition	No impact	No works required	A2	5.2m
1789	Sycamore	M	400	20	N=2 S=2 E=2 W=2	3	Good	A mature sycamore displaying a good overall condition	No impact	No works required	B2	5m
1790	White poplar	M	800	28	N=6 S=6 E=6 W=6	4	Good	A large mature Poplar	No impact	No works required	B2	9m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
1791	Sycamore	M	500	22	N=3 S=3 E=3 W=3	3	Good	A large mature sycamore displaying a god overall condition	No impact	No works required	B2	6m
1792	Sycamore	M	380	16	N=2 S=2 E=2 W=2	2	Fair	A large mature sycamore displaying a fair overall condition	No impact	No works required	C2	4.8m
1793	Sycamore	M	600	24	N=4 S=4 E=4 W=4	3	Good	A large mature beech displaying a good overall condition	No impact	No works required	B2	7m
1794 x 4	Sycamore cluster	M	540	24	N=3 S=3 E=3 W=3	3	Good	A cluster of four large mature multi-stemmed sycamore	No impact	No works required	B2	6.4m
1795	Sycamore	M	700	26	N=4 S=4 E=4 W=4	3	Good	A mature sycamore displaying a good overall condition	No impact	No works required	A2	8m
1796	Sweet chestnut	M	1200	28	N=6 S=6 E=6 W=6	3	Good	A large mature sweet chestnut, a fantastic specimen	No impact	No works required	A2	12m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
1797	Elm	M	500	22	N=3 S=3 E=3 W=3	4	Good	A large mature elm displaying a god overall condition	No impact	No works required	B2	6m
1798	Beech	M	950	24	N=6 S=6 E=6 W=6	4	Fair	A large mature beech displaying a fair overall condition	No impact	No works required	A2	10.5m
1799	Elm	M	500	24	N=3 S=3 E=3 W=3	6	Good	A large mature elm displaying a god overall condition	No impact	No works required	B2	6m
1800	Sycamore	M	450	24	N=3 S=3 E=3 W=3	3	Good	A mature sycamore displaying a good overall condition	No impact	No works required	B2	5.5m
T7	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
T8	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
T9	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
T10	Lime	M	600	24	N=5 S=5 E=5 W=5	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	7m
T11	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
1800	Sycamore	M	450	24	N=3 S=3 E=3 W=3	3	Good	A mature sycamore displaying a good overall condition	No impact	No works required	B2	5.5m
T7	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m
T8	Lime	M	400	18	N=3 S=3 E=3 W=3	3m	Good	A mature Lime displaying over all good condition. This tree has 20+ years remaining	No impact	No works required	B2	5.0m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
2570	oak	SM	150	10	N=2 S=2 E=2 W=2	2	Good	A semi-mature oak in good condition	No impact	Retain	B2	2.5m
2571	Hawthorn	EM	120	6	N=2 S=2 E=2 W=2	1m	Fair	A multi-stemmed hawthorn	No impact	Retain	C2	2.2m
2572	Ash	EM	250	16	N=2 S=2 E=2 W=2	1m	Good	An early mature ash	No impact	Retain	B2	3.5m
2573	Oak	M	450	20	N=4 S=4 E=4 W=4	6m	Good	A large mature oak displaying a good overall condition	No impact	Retain	A2	5.5m
2574	Oak	EM	200	12	N=2 S=2 E=3 W=3	1m	Good	An early mature oak in good condition	No impact	Retain	B2	3m
2575	Sycamore	SM	80	5	N=1 S=1 E=1 W=1	1m	Good	Semi-mature sycamore	No impact	Retain	C2	1.8m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
2576	Oak	M	460	18	N=4 S=2 E=2 W=2	6	Good	A mature oak in good condition	No impact	Retain	A2	5.6m
2577	Oak	M	300	12	N=4 S=2 E=2 W=2	4m	Good	A mature oak in good condition	No impact	Retain	A2	4m
2578	Ash	M	300	18	N=4 S=4 E=4 W=4	1m	Good	A mature ash	No impact	Retain	B2	4m
2579	Ash	M	400	20	N=4 S=4 E=4 W=4	6m	Good	A large mature ash displaying a good overall condition	No impact	Retain	B2	5m
2574	Oak	EM	200	12	N=2 S=2 E=3 W=3	1m	Good	An early mature oak in good condition	No impact	Retain	B2	3m
2575	Sycamore	SM	80	5	N=1 S=1 E=1 W=1	1m	Good	Semi-mature sycamore	No impact	Retain	C2	1.8m

Tree #	Species Botanical Name	Age class	Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
4640	Scots pine	M	600	24	N=0 S=0 E=0 W=0	6	Dead	Maintain as standing habitat	No impact	Retain	U	
4641	Sycamore	M	420	24	N=4 S=4 E=4 W=4	4m	Good	A large mature sycamore	No impact	Retain	B2	5.2m
4642	Sycamore	Em	120	8	N=1 S=1 E=1 W=1	3m	Fair	A self0-seed sycamore	No impact	Retain	C2	2.2m
4643	Yew	M	500	14	N=4 S=4 E=4 W=4	2m	Good	A large mature a Yew displaying a good overall condition	No impact	Retain	A2	6m
4644	Yew	M	500	14	N=4 S=4 E=4 W=4	2m	Good	A large mature a Yew displaying a good overall condition	No impact	Retain	A2	6m

Section 2: Arboricultural Method Statement

Introduction

This report has been prepared in accordance with British Standard 5837: Trees in relation to design,demolition and construction – Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.

Sequence of Operations

- Proposed tree works.
- Installation of tree protection measures.
- Enabling works.
- Construction of proposal and the installation of drainage and services.
- Landscaping.

Alternative sequences can be discussed and agreed with the local authority and project manager if required.

Supervision

All key / critical activities that will affect trees during construction will be inspected and monitored bythe approved arboricultural consultant.

- Pre-commencement meeting with site manager and local authority to confirm location of treeprotection measures.
- Inspection of all tree works and tree protection measures prior to the commencement ofworks.
- Monthly site visits to inspect tree protection measures are in place and reports issued to thelocal authority.
- Supervision during the excavation works within the RPAs of retained trees.
- Supervision during the installation of all services within tree RPAs.
- Supervision during any other works that may affect retained trees.
- Inspection upon completion.

Arboricultural Method Statement	
Scope	**Methodology**
Pre-commencement meeting	Prior to the commencement of works, a meeting between the arboricultural consultant, local authority and the site manager will be held in order to discuss the tree protection measures and proposed works required in closeproximity to trees. Contact details of all parties will be circulated to ensure all team membersare able to communicate correctly. The site manager will be responsible for the protection of all retained trees for the duration of the project. Whenever necessary, the site manager will engage the arboricultural consultant to ensure trees are adequately protected. The appointed arboricultural consultant will be available for verbal advice throughout site works.
Tree Works	Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works. The location of trees to be removed are highlighted on the Tree Removals Plan at Appendix B. It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority. All tree works will be carried out by a reputable arboricultural contractor inaccordance with the recommendations given in BS 3998:2010 – Tree Work Recommendations. All tree works should be carried out in accordance with Section 40 of the Wildlife Act 1976 and Section 46 of the Wildlife (Amendment) Act 2000. It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works.

Tree Protection	The position of protective fencing for construction is shown on the Tree Protection Plan at Appendix B. Protective fencing will be constructed and installed using fencing in accordance with BS5837:2012, please refer to the attached Tree Protection Plan for the specification. Alternatives to those shown must be agreed in advance by the client approved, arboricultural consultant.

	Any machinery / site operative within tree RPAs must operate on the appropriate ground protection at all times, this will include the installation and removal of ground protection. Ground protection measures must be installed in accordance with industry best practice guidance as stated within Section 6.2.3.3 of BS 5837:2012. They must be fit for purpose and capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. No materials or equipment other than those required to erect protective fencing will be delivered to the site before the fencing is installed. Signs will be fixed to every third panel stating, *'Tree Protection Area Keep Out – Any incursion into the protected area must be with the agreement ofthe local authority or arboricultural consultant'*. The main contractor will inform the local authority and the arboricultural consultant that tree protection is in place before site clearance works commence. No alteration, removal or repositioning of the tree protection will take placeduring construction without the prior consent of the arboricultural consultant.
Compound Area	The proposed site compound area has not yet been designed; however, the considerations below must be followed: The site compound must be located outside the designated TPZs as highlighted on the Tree Protection Plan at Appendix B. No excavation works within tree RPAs are permitted to install temporary services for site cabins and facilities. Any temporary services within tree RPAs must be above ground and protected accordingly. No operating generators or toxic liquids will be stored within the RPAs of retained trees during construction. Overhanging tree canopies must be taken into consideration when transporting, installing and removing site cabins near tree crowns. A banksman will be present during this process to ensure that all operations are carried out in a controlled manner and no part of the

	cabin meets overhanging tree crowns.

Installation of cellular confinement system	The installation of the cellular confinement system will be carried out underarboricultural supervision using the following methodology: The existing vegetation in the location of the footpath will be sprayed using a suitable herbicide that is not detrimental to trees and the area left for theprescribed timescale (normally 14 days). Once vegetation has died off the area will be raked and if levelling is required this will be carried out through the spreading of lawn sand or a good quality topsoil. Once levelled the area will be covered by a permeable membrane onto which the cellular system will be laid. This will then be infilled with 20-40mm angular non-fine aggregate and edged with pressure treated pegged timber board or similar. Please refer to the manufactures guidelines for additionalinformation. The finishing surface layer will consist of a permeable hard surface material.
Installation of fencing within RPAs	The installation of fencing within the RPAs of retained trees will be carriedout using the following methodology: Post holes will be carefully positioned as far away from the stem of trees as possible (minimum 50 cm) to minimise contact with tree stems and significant tree roots. Holes will be manually excavated with the use of hand tools only and where roots greater than 25mm in diameter or large fibrous roots are present, theposition of the hole will be slightly altered to avoid potential root damage. If the position of the hole cannot be altered, roots greater than 25mm in diameter or large fibrous roots will be protected with flexible plastic pipes and retained within the pit. In some cases, individual roots less than 25mm in diameter may be pruned, making a clean cut with a suitable sharp sterile tool (e.g. secateurs or handsaw). Once the required depth has been excavated, the hole will be lined using

	1000-gauge polythene and filled with the appropriate concrete mix.
Landscape Operations	All landscape operations within the protected area will be carried out by hand, using hand tools only, unless otherwise agreed with by the arboricultural consultant.

	No dumping of spoil or rubbish, parking of vehicles or plant, storage ofmaterials or temporary accommodation will be undertaken within the TPZs. All tree roots within the RPAs greater than 25mm diameter will be retainedand worked around. Soil levels will not be increased or reduced within the RPAs of trees without prior agreement from the arboricultural consultant.
General Principals to Avoid Damage to Trees	All tree works will be carried out in accordance with the recommendationsgiven in BS 3998 (2010). No fires will be permitted within 20m of the crown of any tree. No changes in soil levels will take place within the tree protection zones without prior written consent of the local authority. No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboriculturalconsultant. Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to thearboricultural consultant immediately. The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.

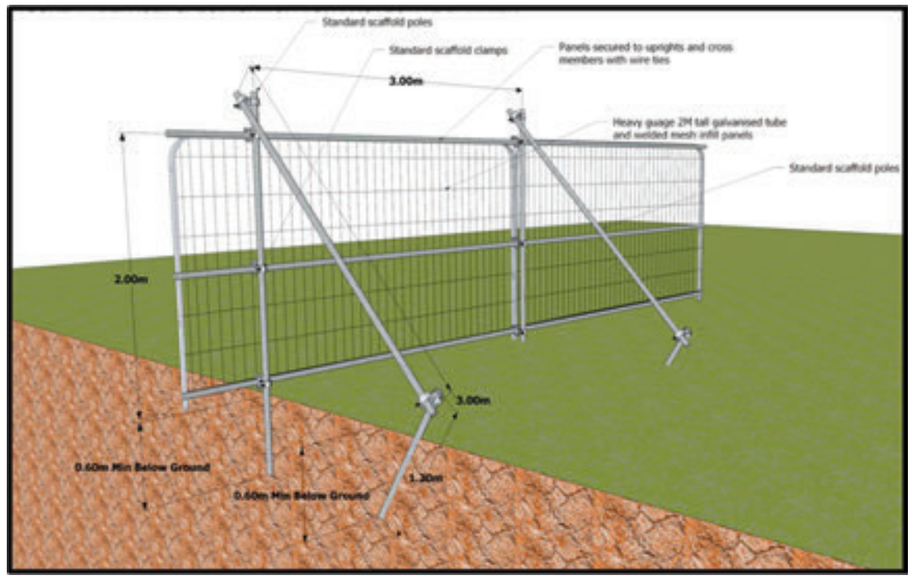


Figure 3 Default specification for tree protection barrier in accordance with BS5837:2012

This report was prepared by:

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Yours in Conservation,
Michael Garry.
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This report was prepared by:

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Yours in Conservation,
Michael Garry.
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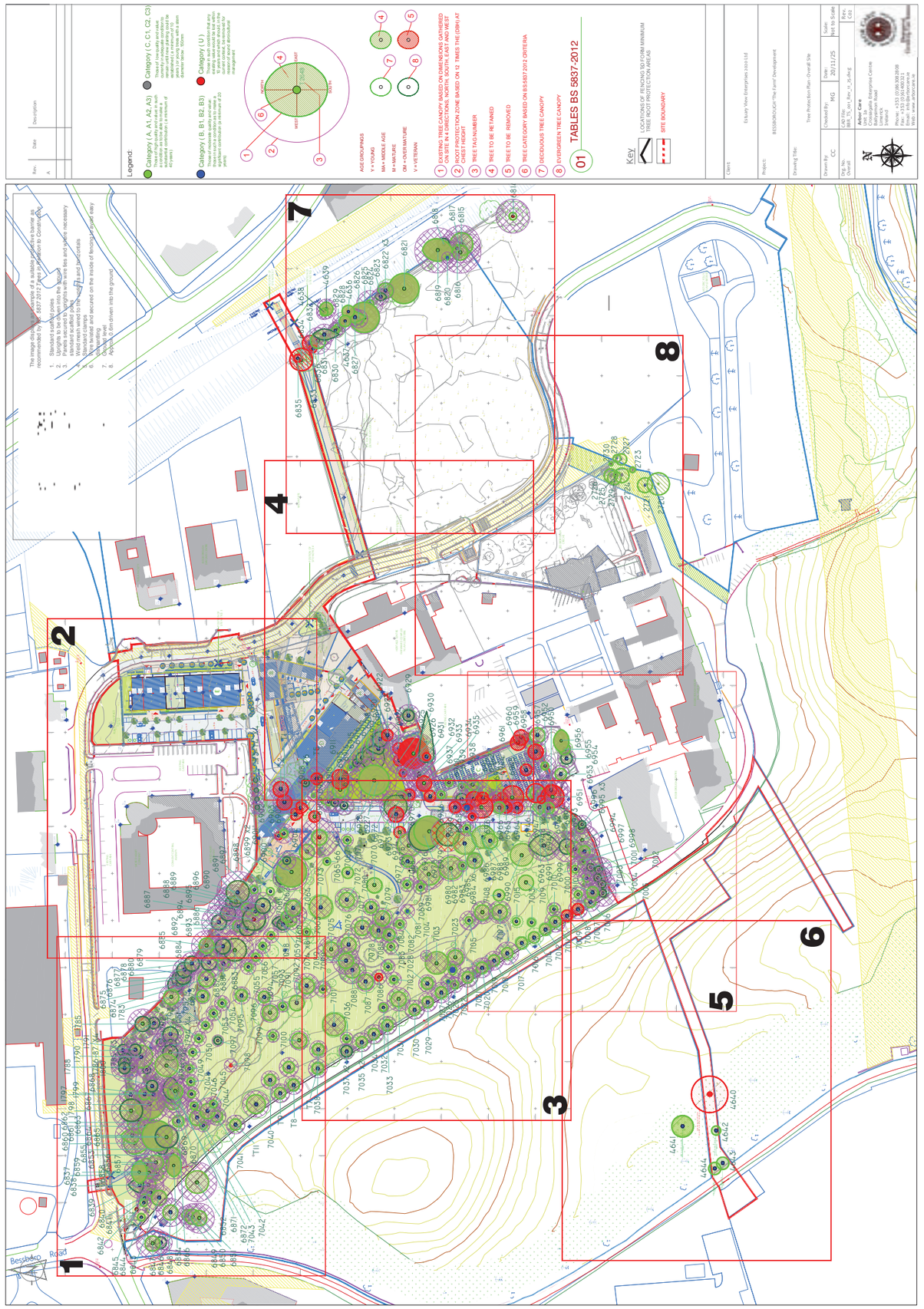


Rev.	Date	Description
A		

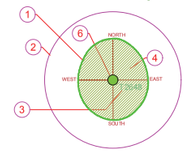
Legend:

Category (A, A1, A2, A3) — Those of high quality and value; in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

Category (C, C1, C2, C3) — Those of low quality and value; currently in adequate condition to remain until new planting could be established (a minimum of 10 years) or young trees with a stem diameter below 150mm

Category (B, B1, B2, B3) — Those of moderate quality and value; those in such a condition as to make a significant contribution (a minimum of 20 years)

Category (U) — Those in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reason of sound abrobiucultural management



AGE GROUPINGS
Y = YOUNG
MA = MIDDLE AGE
M = MATURE
OM = OVER MATURE
V = VETERAN

1. EXISTING TREE CANOPY BASED ON DIMENSIONS GATHERED ON SITE IN 4 DIRECTIONS, NORTH, SOUTH, EAST AND WEST
2. ROOT PROTECTION ZONE BASED ON 12 TIMES THE (DBH) AT CHEST HEIGHT
3. TREE TAG NUMBER
4. TREE TO BE RETAINED
5. TREE TO BE REMOVED
6. TREE CATEGORY BASED ON BS:5837:2012 CRITERIA
7. DECIDUOUS TREE CANOPY
8. EVERGREEN TREE CANOPY

01 TABLES BS 5837-2012

Key
- LOCATIONS OF FENCING TO FORM MINIMUM TREE ROOT PROTECTION AREAS
- SITE BOUNDARY

Client: Estuary View Enterprises 2020 Ltd

Project: BESSBOROUGH "The Farm" Development

Drawing Title: Tree Protection Plan

Drawn By:	Checked By:	Date:	Scale:
CC	MG	20/11/25	1:250 @A1

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3

4

Rev.	Date	Description
A		

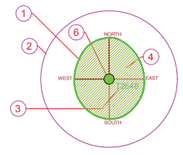
Legend:

Category (A, A1, A2, A3)
Those of high quality and value; in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

Category (C, C1, C2, C3)
Those of low quality and value; currently in adequate condition to remain until new planting could be established (a minimum of 10 years) or young trees with a stem diameter below 150mm

Category (B, B1, B2, B3)
Those of moderate quality and value; those in such a condition as to make a significant contribution (a minimum of 20 years)

Category (U)
Those in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reason of sound aboricultural management



AGE GROUPINGS
Y = YOUNG
MA = MIDDLE AGE
M = MATURE
OM = OVER MATURE
V = VETERAN

1. EXISTING TREE CANOPY BASED ON DIMENSIONS GATHERED ON SITE IN 4 DIRECTIONS, NORTH, SOUTH, EAST AND WEST
2. ROOT PROTECTION ZONE BASED ON 12 TIMES THE (DBH) AT CHEST HEIGHT
3. TREE TAG NUMBER
4. TREE TO BE RETAINED
5. TREE TO BE REMOVED
6. TREE CATEGORY BASED ON BS:5837 2012 CRITERIA
7. DECIDUOUS TREE CANOPY
8. EVERGREEN TREE CANOPY

01 TABLES BS 5837-2012

Key
LOCATIONS OF FENCING TO FORM MINIMUM TREE ROOT PROTECTION AREAS
SITE BOUNDARY

Client:
Estuary View Enterprises 2020 Ltd

Project:
BESSBOROUGH 'The Farm' Development

Drawing Title:
Tree Protection Plan

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BESSBOROUGH CENTRE
BESSBOROUGH HOUSE
RPS. (PS490)
Legend:
Category (A, A1, A2, A3)
Those of high quality and value; in such a condition as to be able to make a substantial contribution (a minimum of 40 years)
Category (C, C1, C2, C3)
Those of low quality and value currently in adequate condition to remain until new planting could be established (a minimum of 10 years) or young trees with a stem diameter below 150mm
Category (B, B1, B2, B3)
Those of moderate quality and value; those in such a condition as to make a significant contribution (a minimum of 20 years)
Category (U)
Those in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reason of sound arboricultural management
NORTH
EAST
SOUTH
WEST
AGE GROUPINGS
Y = YOUNG
MA = MIDDLE AGE
M = MATURE
OM = OVER MATURE
V = VETERAN
1 EXISTING TREE CANOPY BASED ON DIMENSIONS GATHERED ON SITE IN 4 DIRECTIONS, NORTH, SOUTH, EAST AND WEST
2 ROOT PROTECTION ZONE BASED ON 12 TIMES THE (DBH) AT CHEST HEIGHT
3 TREE TAG NUMBER
4 TREE TO BE RETAINED
5 TREE TO BE REMOVED
6 TREE CATEGORY BASED ON BS 5837 2012 CRITERIA
7 DECIDUOUS TREE CANOPY
8 EVERGREEN TREE CANOPY
01 TABLES BS 5837-2012
Key
LOCATIONS OF FENCING TO FORM MINIMUM TREE ROOT PROTECTION AREAS
SITE BOUNDARY
Rev. Date Description
A
Client:
Estuary View Enterprises 2020 Ltd
Project:
BESSBOROUGH "The Farm" Development
Drawing Title:
Tree Protection Plan
Drawn By: CC
Checked By: MG
Date: 20/11/25
Scale: 1:250@A1
Drg. No. 5 of 8
CAD File: BBR_TS_001_Rev_11_35.dwg
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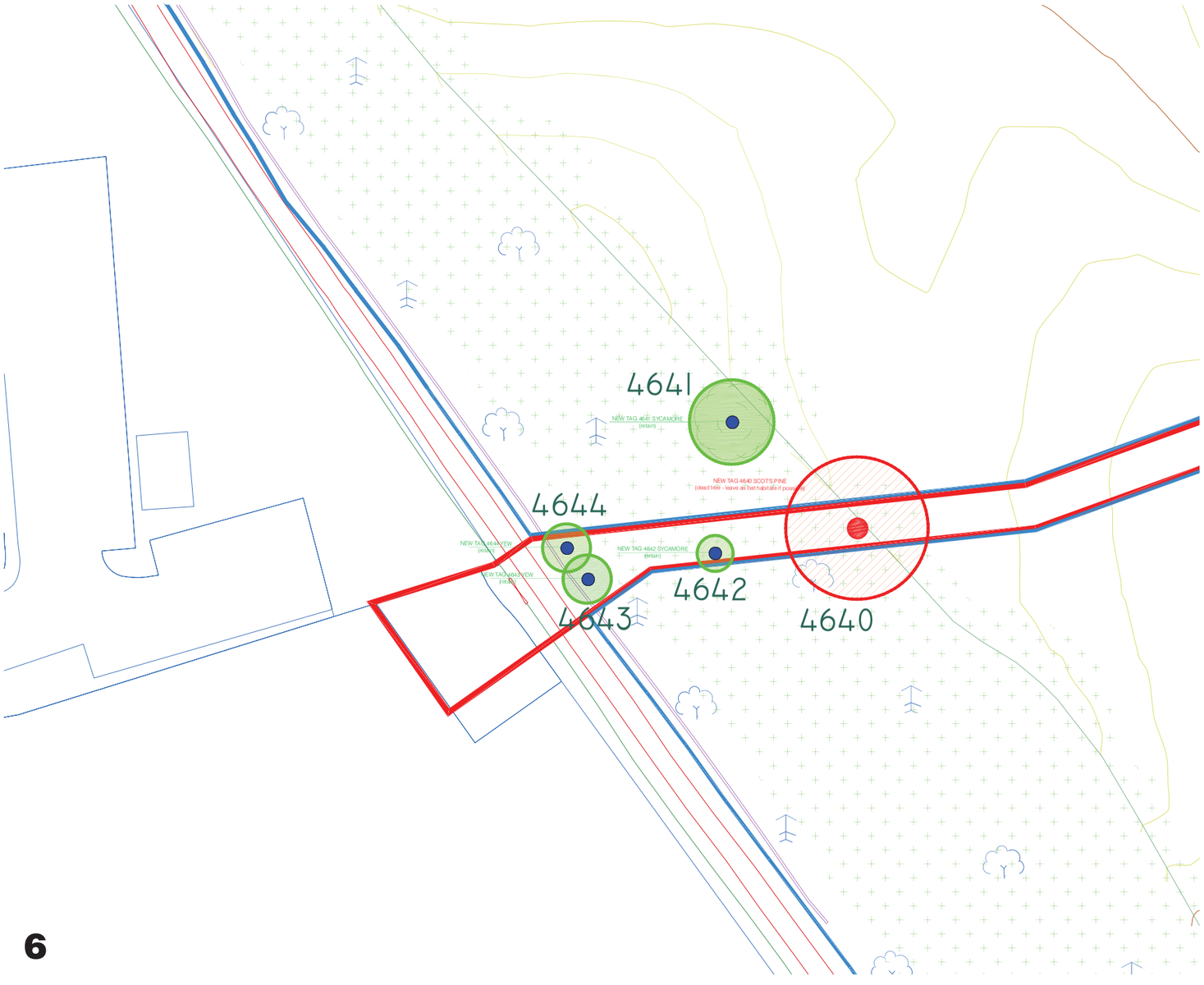
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NEW TAG 4641 SYCAMORE
(retain)
NEW TAG 4640 SCOTS PINE
(dead tree - leave all bat habitate if possible)
4644
NEW TAG 4644 YEW
(retain)
NEW TAG 4643 YEW
(retain)
NEW TAG 4642 SYCAMORE
(retain)
4643
4642
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Rev. Date Description
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6

VACANT SITE

POSITION OF SITE NOTICE 7

POSITION OF SITE NOTICE 6

GREENWAY

EXISTING TRAMLINE

Footpath

PHASE 1 'THE MEADOWS' SITE FOR SHD DEVELOPMENT (SEPARATE APPLICATION)

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Rev.	Date	Description
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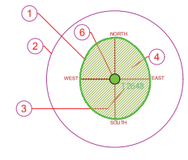

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- SITE BOUNDARY

Client: Estuary View Enterprises 2020 Ltd

Project: BESSBOROUGH "The Farm" Development

Drawing Title: Tree Protection Plan

Drawn By:	Checked By:	Date:	Scale:
CC	MG	20/11/25	1:250@A1

Drg. No. 7 of 8 | CAD File: BBR_TS_001_Rev_11_25.dwg | Rev. C02

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BESSBOROUGH HOUSE RPS. (P.S490)

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- Appendix 3.4 - Historic Landscape Assessment Report by Forestbird Design

HISTORIC LANDSCAPE ASSESSMENT

August 2020

Besborough House Demesne
Ballinure, Mahon, Cork

Forestbird Design
landscape architecture landscape planning environmental design

Alting Cottage
Ballybranagh
Cloyne
Co. Cork
www.forestbirddesign.com

Document Title:	Historic Landscape Assessment Report
Issue Date:	18th August 2020
Site Location:	Besborough Demesne, Mahon, Cork
Townland:	Ballinure
Irish National Grid Reference:	(E,N) 571800, 570250
Client:	Estuary View Enterprises 2020 Limited
Report Author:	Mike Waldvogel, MILI

1 - INTRODUCTION

Forestbird Design has been commissioned by Estuary View Enterprises to prepare a Historic Landscape Assessment for the lands at the Besborough Demesne in Ballinure, Mahon, Cork. The author of this report, Mike Waldvogel, has more than 20-years experience as a Landscape Architect and is a specialist in Landscape and Visual Impact Assessment. Within this heading falls the experse` in assessing cultural and historic landscapes. Mike is a corporate member of the Irish Landscape Institute. Having assessed dozens of potenal` development lands within the city boundary and involved with projects as nearby as Skehard Road, Mahon, Blackrock and Rochestown, he is familiar with the local history, landform and landscape characteriscs` of the area. Varying documents also refer to the house as 'Bessborough', 'Bessboro' and 'Bisboro' with the spelling 'Besborough' selected for this report due to its consistent use in Ordnance Survey maps.

2 - METHODOLOGY

This report was developed through a combination of on-site investigations and desktop research. The research involved analysing cartographic information, historical reference texts and publicaons on the` application of Historic Landscape Assessments. It is intended that this document be read in conjuncon` with the *Cultural Heritage Assessment* produced by John Cronin and Associates, as their work provides historical details not duplicated here. The other primary resources referenced include the following:

- Ordnance Survey historical mapping (6-inch, 25-inch, Cassini)
- National Monuments Service Archaeological Survey of Ireland
- National Inventory of Architectural Heritage database
- National Museum of Ireland online database
- Aerial photography from Google and Bing Maps
- Cork City Development Plan 2015-21 (objectives, designated sites and landscape policy)
- National Biodiversity Data Centre national vegetaon daàtabase and heritage trees
- Landscape Institute (2013) *Guidelines for Landscape and Visual Impact Assessment*, 3rd edition
- The Heritage Council (2013) *Historic Landscape Characterisation in Ireland: Best Practice Guidance*
- Howley, James (2004) *The Follies and Garden Buildings of Ireland*
- Buxbaum, Tim (2002) *Icehouses*
- Robinson, William (1870-1895, rev.2010) *The Wild Garden*, 5th edition
- Ballitore Quaker Library and Museum (Quaker Garden Research)
- Powers, Jane (2015) *The Irish Garden*

3 - SITE BACKGROUND

Besborough House is a Georgian country house dang` back to 1760, passing through a series of Quaker gentry and eventually purchased by the Sacred Heart Order in 1922, who are sll` on site today. Although the grounds sit within close proximity to urban life, the site has a discreet entrance and a sense of separaon` from surrounding activity. Besborough House is a *Protected Structure* (PS490), a *National Monument* (NM ref. no. CO074-077) and listed on the *National Inventory of Architectural Heritage* (NIAH ref. no. 20872005). Within the demesne are an Icehouse (NM CO074-051) to the west, a Farm Complex and Walled Garden (NIAH 20872006) to the north and a Tower Folly (NIAH 20872007) to the east.

The site is accessed at a single point through a historic stone and wrought iron gateway. Stone boundary walls are largely intact. The internal landscape generally consists of a defined entry drive, large pastures and mature parkland trees at the periphery. The land undulates, but with a natural fall towards the estuary to the south. The historic site was permanently altered with the construction of the South Ring Road (N40).

Aerial reference image of site and environs (courtesy of Bing Maps and Microsoft ©2020).

4 - WHAT IS A HISTORIC LANDSCAPE ASSESSMENT?

A *Historic Landscape Assessment* (HLA) is a report that documents past landscape use, the evoluon` of the landscape over me` and idenfies` the key components linked to such historical use. In order to draw conclusions on individual components, they need to be brought into relaonship` of the greater landscape. In this instance, the HLA would cover the greater demesne lands, beyond the central building cluster. The individual elements are intrinsically linked and assessed regardless of current ownership.

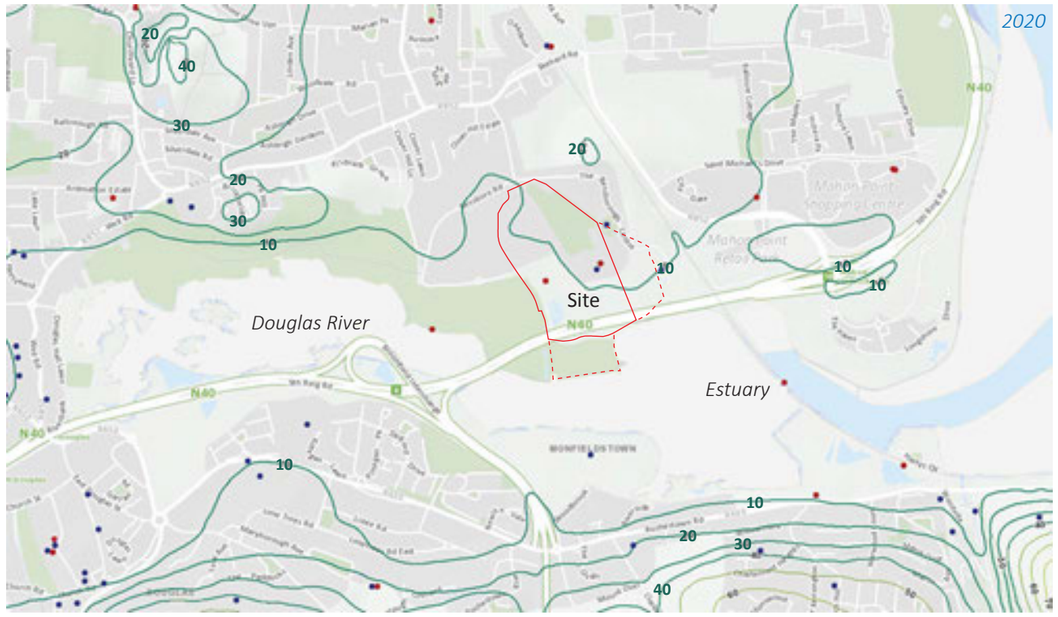
There are no statutory guidelines on HLA. But there is a quality framework laid out by the Heritage Council, Naonal` Monuments Service, the Landscape Institutes and published notes from An Taisce. The combinaon` of these provides clarity in HLA approach. At this site, the HLA would include the following inves. gaons:

- Historical wri en and map references pernen t to the site and environs
- Original landscape extent of the demesne and land use perne nce
- Idenfying a period of landsc ape significance and landscape trends during this me
- Overview of the types, ages and arrangement of the trees on site
- Evoluon of the landsc ape with evoluon of the sit e use and external influences
- Assessment of historic and cultural benefit of current landscape, including degree of importance
- Conclusion to assess potenal impact of pr oposals

5 - LANDSCAPE SETTING

Naturally, the lands are located on a gently sloping hillside that falls towards the Douglas River and Cork Harbour estuary. The map below illustrates the historical site in terms of landform. The house sits on a highpoint within the site, but in the larger context the site itself is not one of prominence. Knolls to the east at Lakeland (modern Mahon Interchange), to the west at Ballinlough and the steep hillsides of Rochestown across the estuary would have been more visible. It benefits from a sheltered posion` and access to the water. Site archaeology is recent and a direct result of the demesne.

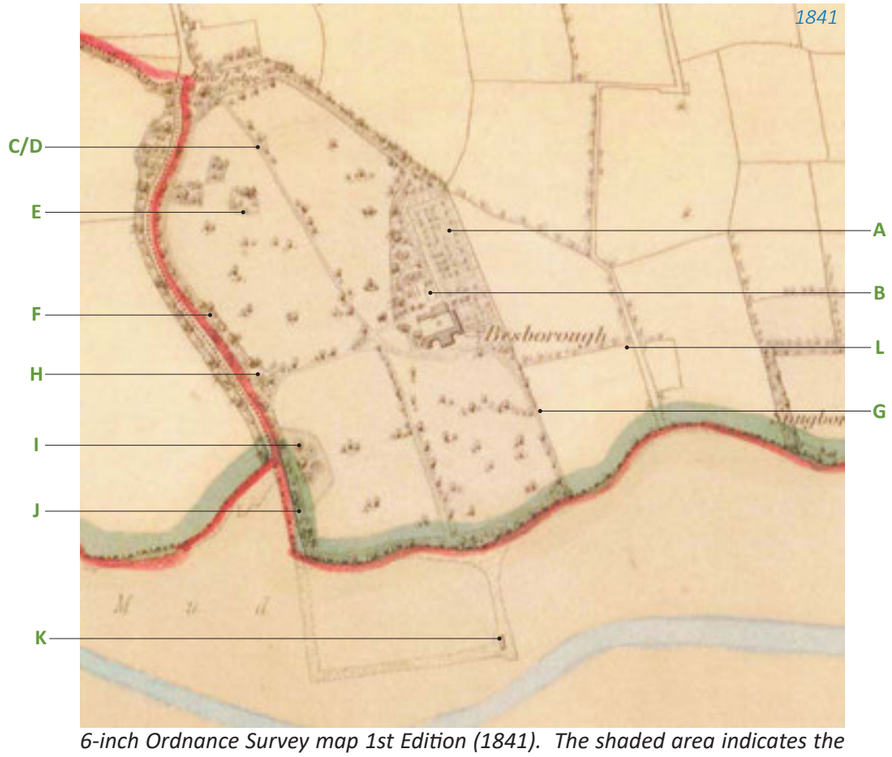
(Above) Ordnance Survey 6-inch map (1841) overlaid with contour data and archaeology (red dots = NM, blue dots = NIAH). The original demesne is outlined in red, with dashed red lines indicating natural extensions of the demesne lands. The parcel size and proximity to the water indicate a privileged setting, but the landform suggests an estate with a localised degree of visibility. (Below) The original demesne outline overlaid onto a modern map of the area, with the N40 severing the southern portion of lands.



6 - HISTORICAL REFERENCE MAPS

The maps prior to the 1841 6-inch Map idenfy` Besborough as a house of status, but give lile` informaon` on the landscape or contents therein. The 1841 map provides the first detailed graphic account of the site. However, at this stage the demesne would have been in place for more than 80 years. In interpreng` landscape use prior to 1841, we can make inferences based on how the buildings evolved, the landscape trends of the time and the business and religion of the landowners.

By 1760, there was a trend for 'designed landscapes' and there were numerous publicaons` to which the landed gentry could refer. Preferences could lean towards the more ornamental French style or the planned natural English style. Neither appears to have been wholeheartedly embraced, which could be influenced by the fact that for the first 150 years, the landowners were Quakers. As pertains landscape history, Quakerism has a close link to the natural world. Their landscapes often had animals, individual tree planng` and typically shunned high degrees of ornament or amenity. From these roots, we can comment on the detail of the 1841 6-inch map.



6-inch Ordnance Survey map 1st Edition (1841). The shaded area indicates the demesne lands. The two parcels to the east may have been used by Besborough, but they do not form part of the original demesne designation.

A - The structured parterre garden is offset from the main house, indicang` that it was likely a funconal` garden and not for ornament. It also contains grow houses close to the house, whereby aesthec` design would have placed them at the rear periphery of the garden.

B - North of the house is a small area that likely housed pens for small livestock (chickens, pigs). Beyond this is an area of dense vegetaon,` potenally` fruit. It also includes the largest trees on site, indicang` that these may have been native trees or planted as part of an avenue when the house was first constructed.

C - The central access drive only has clusters of tree planng` (moderate age) and is not planted as a conguous` avenue (as it is today). It also does not stand out in the hierarchy of paths. It is reasonable to assume that the original access drive followed the northeast boundary, where a larger track with more mature trees is represented. The central drive probably arose due to increased horse and cart traffic as roads improved in the late 1700- early 1800's and the benefit of water access declined.

6 - HISTORICAL REFERENCE MAPS

D - The paths are all fairly wide, indicang their main purpose was for a cart and not pedestrian promenades.

E - The demesne is divided up into four field parcels, each with parkland-type tree planng or roughly the same age (moderate). This indicates the fields were intenonall y planted and used as animal pastures, not grains or crops.

F - Boundary planng to all sides is notably thick and of mixed species (primarily deciduous). There are also boundary walls within the tree planng; all indic ang a desir e for a degree of privacy.

G - The two field parcels east of the house are not indicated as part of the demesne. But, the lack of boundary between them and the presence of a shared track hints that they may have been used by the demesne (crops/grain) or had a close relaonship with the landowner .

H - There is a direct track west of the house leading approximately to where the Ice House is today. The Ice House is not clear on the map (in vegetaon), but the late 1700's would have been a likely installaon period, parcularly this close t o boat access and for a business that would need to store goods.

I - The pond with 5 islands is a disnct feature and illustrates vegetaon on the islands. At this me there is no vegetaon t o the edge of the pond (as today), so there is an unimpeded visual link to the house. The use of 5 islands in a pond this size is very unusual and its meaning is also unclear. As the islands appear equal in size, it could allude to a familial connecon to the number 5, a means of separang certain types of animals or a religious anecdote to the *Testimonies* of Quakerism at the me. Wri en descripon reveals that the pond was later used as an amenity (late 1800's), but amenity may not have been its original intent.

J - Within the walls but along the site periphery, a sizable track is indicated; providing a looped circuit back to the parterre garden area. Adjacent to the pond, the track runs along the west.

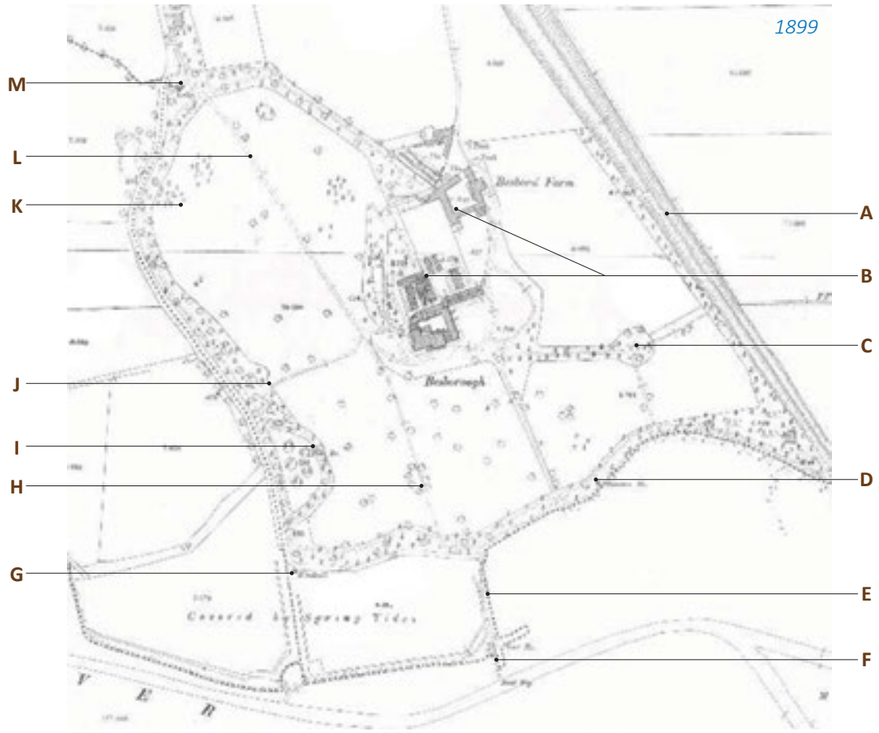
K - Beyond the boundary walls, but likely an important part of the funconing of the demesne is a boat house and access routes. The access would likely have been made of built-up shingle, protecng the route from regular des (but not spring des). It accesses both the demesne and the track to the west. The fact that it makes a square (rather than merging into a single route) means that the internal square may have been protected for a coastal agricultural use.

L - The two agricultural parcels east of the house are separated by a hedgerow. This would not form part of the Folly avenue we see today. Where the hedgerow meets the track, some have argued that this square is the Folly. It is an odd juxtaposion and would be highlighted grey if it were the Folly. A wave of follies (parcularly c astle follies) arose across Ireland during the famine years of the late 1840's.

From the 1841 6-inch map to the 1899 25-inch map, the house was occupied by one family. This period also saw a number of changes to the demesne, achieving the size we are more familiar with today. The advent of the railway line creates a abrupt boundary to the east, allowing the two field parcels east of the house to be amalgamated within the domain of the house. North of the house, the farm has expanded considerably, with structures a. aining a larger footprint than the house itself. The introducon of the Folly expands the landscape equally from west to east, centred on the house.

Photo of the house from the 1880's, with a manicured lawn and planted urns; yet still functional land as wire fencing separates the pasture.

The late 1800's saw a change in Irish lifestyle, with recovery from the famine and the advent of parkland as amenity (whether it be private or public). These changes also occurred within Besborough. The Folly expanded the landscape, as a romanc and amenity focal point. A 'Summer House' was introduced along the shoreline, a frivolous feature where one could take tea or use for play. A slip was enhanced at the Boat House, likely for pleasure access rather than business. And wri en text alludes to the Pike family using the pond for paddling boats.



25-inch Ordnance Survey map (1899). These maps typically show less landscape ornament, but provide more clarity for boundaries, access routes and tree types.

A - The railway line from Cork City to the Passage West docks is introduced, severing the site from lands to the east. Buffer planting has been installed adjacent to the track (not always the case at this time).

B - The farm complex substantially increases, minimising the importance of the former parterre garden.

C - Amalgamaon` of adjacent lands and construcon` of the Folly (a paral` castle keep) create a new focal point and visual feature for passersby on the train. New types of parkland trees form an avenue, including a Monkey Puzzle, Scots Pine and a Copper Beech (in addition to traditional Beech, Oak, Yew and Ash).

D - A Summer House with views over the estuary expands the landscape amenity.

E - The Townland boundary has changed, incorporating the coastal reconfiguration.

F - The Boat House remains and is enhanced with an expanded slip (likely amenity).

G - A windmill is introduced at the edge of the coastal reconfiguraon.` No longer extant, it could have served an amenity purpose (focal point from house) and a funconal` purpose (coastal agricultural square or water circulation within the pond).

H - A circular band of trees appears, but none remain today. Aligned with the track, they would have been an ornamental feature, possibly new tree species at the period or short-lived ornamental trees (like Cherry).

I - The pond is cleanly presented, illustrang` coniferous trees on the islands (as is today) and a footbridge to the northeast island. A vegeta. ve buffer has been introduced to the edge of the pond, likely obscuring visibility from the house.

J - The track crossing the field west of the house appears to access the pond and not a direct link to the Ice House. The Ice House is indiscernible on this map, which may indicate its' disuse or coverage by vegetaon.

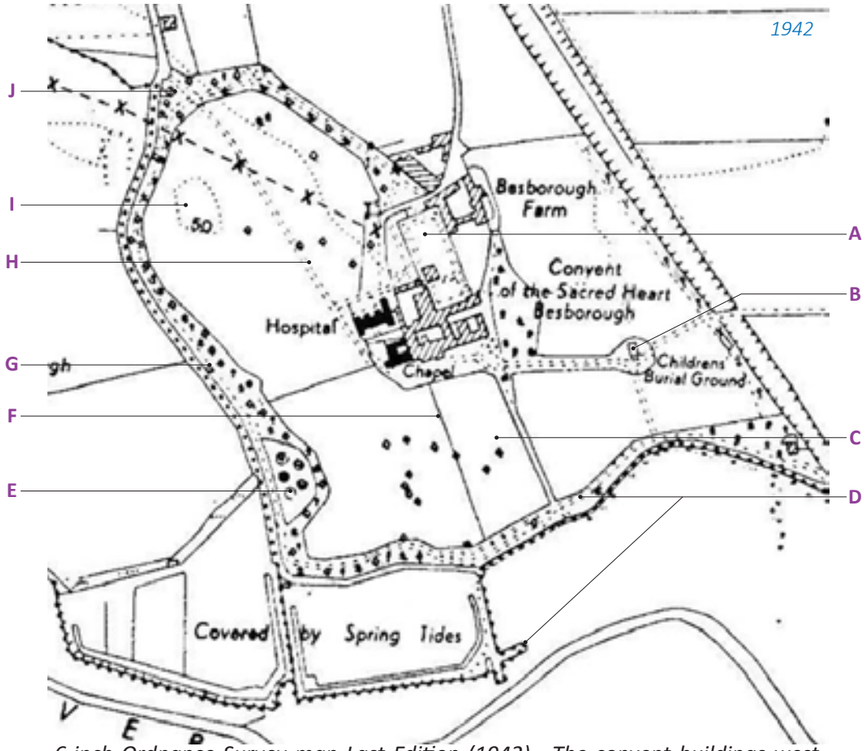
K - Tree clusters sll e xist within the field parcels, indicang t hey are sll used as pas tures (not crops).

L - The central avenue is now the prominent track, but avenue planng has not y et commenced.

M - The Gate Lodge is as per the 1841 map and the entrance has the current concave boundary.

Between the 1899 25-inch map to the 1942 6-inch Last Edion` map, the house underwent a change of occupancy, which also resulted in a change of landscape uses. The map below illustrates the evoluon` of the site 20 years a. er being acquired by the Sacred Heart Order. Substanal addions and subtracons were made to the buildings. While many of the amenies from the second half of the 1800's are present, they appear less prominent. It should be noted that the Last Edion maps typically contain less landscape detail than earlier versions, so maps cannot be compared like-for-like.

Suburban growth from Cork began to make its way to the gates of Besborough. With a significant increase in occupant numbers on site, the use of the grounds for casual amenity is also ancipa ted to have increased. However, amenity may have been limited to walks/promenades. The loop path along the boundary wall is a significant landscape feature and the convent uses are highlighted.



6-inch Ordnance Survey map Last Edition (1942). The convent buildings west and east of the House result in significant changes to its landscape setting.

A - The walled garden appears intact and de-clu ered, perhaps for resident use.

B - Associaon with the Folly has been altered by attaching an area of solemn commemoraon to it. It is of interest that trees are not shown along the avenue, despite significant specimens having been present.

C - Trees are sll shown within the southern pas ture.

D - The Summer House, Boat House and slipway are unmarked, but appear intact.

E - The pond is sll clearly iden fied with 5 islands and a buff er of planng t o all sides.

F - Former tracks to the Ice House and estuary appear to have been downgraded to fencelines.

G - The Ice House is visible on the map, adjacent to a clearly defined perimeter path.

H - Despite the advent of the motor car, the entrance avenue does not illustrate upgrading from a track. Avenue tree planng is s ll not indic ated.

I - 50' contours appear on the map, idenfying the sit e high point. Former tree planng has been r emoved.

J - The Gate Lodge, mature tree planng and c oncave entrance are extant.

7 - CURRENT LANDSCAPE INVENTORY

Some elements of the exisng` landscape have been well maintained, while others have been neglected. In developing a landscape inventory, we look at both hardscape and vegetaon.` Pertinent exisng` components are described below and assessed on a scale of 1-5 based on the relevance of the element to the historic landscape and the condition it is in.

Category 1 = Low Importance; no landscape heritage link or is a modern artefact in place of a historic one, loss would have no detrimental impact on the historic landscape.

Category 2 = Minor Importance; a feature that exists from a historic era, but has lile` impact on the landscape character or landscape intent, loss is acceptable with compensation.

Category 3 = Moderate Importance; a feature that adds to the historic landscape character and should be retained, loss at this level is not detrimental individually, but cumula. ve loss must be assessed. This category could include important elements that are in poor condion.

Category 4 = High Importance; a prominent feature that should be retained, loss at this level would have significant impact, but not an impediment to comprehending the historic landscape.

Category 5 = Extremely Important; a key feature requiring retenon and protecon, loss at this level would be detrimental to proper interpretaon of the his toric landscape.

Item: Entrance Piers
Comments: Scale and offset to eachother
Category: 4

Item: Entrance Wrought Iron Fence
Comments: Curved form and finial design
Category: 4

Item: Cobble Paving
Comments: Natural stone, modern addition
Category: 2

Item: Tarmac Entry Avenue
Comments: Alignment and scale
Category: 3

Item: Concrete Post and Wire Fence
Comments: Later generation fence
Category: 1

Item: Avenue Hedge
Comments: Biodiversity, but impedes visibility
Category: 1

Item: Northeast Parkland Conifers
Comments: Ornamental conifers from 1950-70
Category: 1

Item: Northeast Parkland Broadleaves
Comments: Hybrid and smaller stature ornamental species from 1950-70; select retention
Category: 2

Item: Entry Avenue Tall Lime Tree
Comments: Remnant from 1760-1820 parkland
Category: 5

Item: Entry Avenue Short Lime Trees
Comments: Monoculture from mid 1900's
Category: 2

7 - CURRENT LANDSCAPE INVENTORY

Item: Arrival Layout
Comments: Curvature and scale
Category: 4

Item: Concrete Kerbs and Tarmac
Comments: Mid-1900's, replaced gravel
Category: 1

Item: Cabbage Palms
Comments: Frame to front door, period specific
Category: 2

Item: Grotto
Comments: 1920-30; appropriate, but poor location
Category: 3

Item: Mature Ash and Sycamore Trees
Comments: Spatial definition, diversity
Category: 4

Item: Mature Scots Pine Tree
Comments: Focal point, form and longevity
Category: 5

Item: Ornamental Garden at Modern Shed
Comments: Unique plants; outside of Folly avenue
Category: 1

Item: Avenue Monkey Puzzle and Copper Beech
Comments: Mid-1800's, alignment
Category: 5

Item: Stone Folly (Castle Keep)
Comments: Mid-1800's, quality, romanticism
Category: 5

Item: Graveyard
Comments: 1920's; cultural
Category: 5

Item: Yew Tree
Comments: Mid-1800's, obscures view but culturally appropriate, moderate health
Category: 4

Item: Pond with 5 Islands
Comments: Original, cultural interest, biodiversity
Category: 5

Item: Island Scots Pine Trees
Comments: Original planting, identity, bird perch
Category: 5

Item: Island Shrubs
Comments: Overgrown with Laurel, revamp req.
Category: 1

7 - CURRENT LANDSCAPE INVENTORY

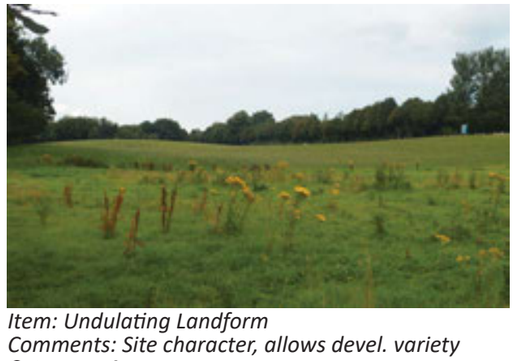
Item: Ice House
Comments: Style and setting, intact but used as a rubbish dump and graffitied
Category: 5

Item: Surrounding Woodland
Comments: Original, shelter and character
Category: 5

Item: Stone Boundary Wall
Comments: Stone and plaster to 2.5m ht.; compromised at several locations
Category: 5

Item: Woodland Understorey
Comments: Clean, but only modest diversity
Category: 3

Item: Woodland Path at West Boundary
Comments: Original, would benefit from widening, but do not pave (potential tree root damage)
Category: 4



Item: Undulating Landform
Comments: Site character, allows devel. variety
Category: 4

Item: Open Pastures
Comments: Modern evolution from parkland trees
Category: 1

Item: Visual Link to Amenity Path Bridge
Comments: Railway line route over N40; Folly and House filtered visibility
Category: 3

Item: Visual Link to Southern Hillsides
Comments: Distant views (2km) of House from Rochestown and Mount Oval
Category: 3

8 - IDENTIFYING LANDSCAPE IMPORTANCE

The historic landscape isn't just a snapshot at a parcular` point in me.` It is the culminaon` of contribuons` by various landowners, cultures and me` periods that improve the seng` and experience of the landscape. The previous pages inves. gated the evoluon of the landscape and the components that are consistent through the generaons. With this informaon, we can idenfy a framework that best exemplifies and enhances the seng of the house. At Besborough, the key landscape components are contained within 3 zones, idenfied in the diagr am below.

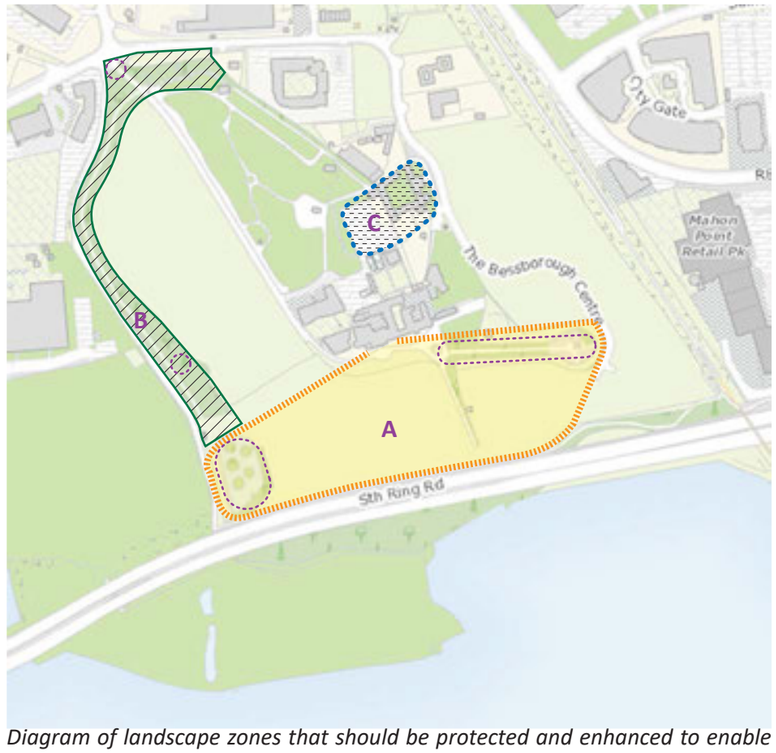


Diagram of landscape zones that should be protected and enhanced to enable retention of historic landscape character. Areas not highlighted have a degree of flexibility to receive landscape change or built development.

ZONE A - The historic house has undergone an enormous amount of change to the rear and and sides, but the one constant is the open landscape to the front (south) of the house. These contextual relaonships can be extended into the landscape. The lands to the south are vital to keep open, while the lands to the east, west and north can tolerate development without dilung the historic landscape strengths. The zone includes the full extent of the pond to the west and the Folly to the east. It is this zone that should be classified as the "Landscape Preservaon Z one".

ZONE B - The band of woodland along the western and northern boundaries relates back to the original demesne planng. The number of stately trees this close to the city centre is a rare find, creang a unique atmosphere and sense of me. The zone includes the Ice House, the entrance gates, the boundary wall and a footpath link. Defined by the extent of trees, any development outside of this needs to be cognisant of root protecon z ones. In terms of status, this is secondary to Zone A, but it would be equal in terms of protecon.

ZONE C - The walled garden and historic farm buildings would be considered part of the built fabric of the demesne, but it is here where the landscape composion would have impacted the daily lives of many residents through me. The walled garden and associated stone buildings should be viewed as a landscape amenity within the interconnected fabric of structures.

OTHER AREAS - The lack of zone idenfic aon does not give the right for unencumbered development. Works in these areas are to be cognisant of the individual inventory and to create new uses embedded within a parkland seng.

9 - IDENTIFYING THE LANDSCAPE PRESERVATION ZONE

In idenfying` the historic landscape zones for protecon` and enhancement, the query arises *What parameters have we used to define the Landscape Preservation Zone*? There are 4 key criteria described below. The diagram graphically presents an accurate depiction of the extent to be included in the Landscape Preservation Zone (LPZ).

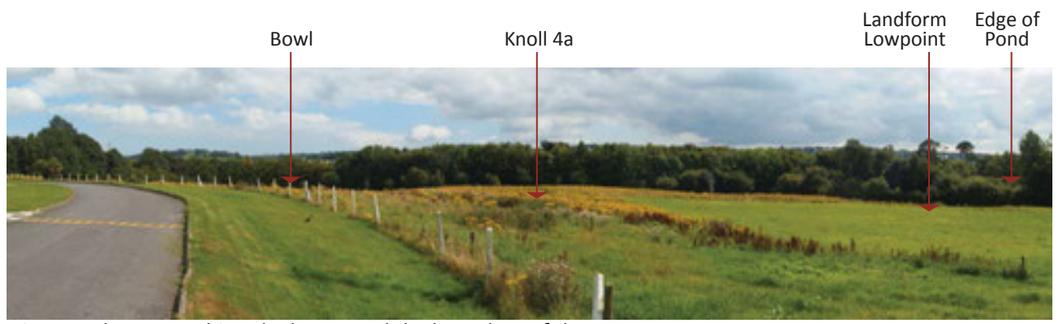
Diagram depicting an accurate extent of the proposed Landscape Preservation Zone. The base image includes structures, landscape features, 1m contour lines and aerial extent of tree canopies.

Criteria 1 - The Pond - The entirety of the pond needs to be included with future visual link to the house (a. er mig aon).

Criteria 2 - The Folly - The ring around this element defined by edging and paths is to be included.

Criteria 3 - Folly Avenue - Includes 20m north of the path for suitable tree protecon.

Criteria 4 - Landform - More important than a line on a plan, the lay of the land defines the southern open space with a disnct 'bowl' feature. The knolls to either side (4a and 4b) must be included to enhance the effect. The northwest extent of the LPZ reflects a lowpoint of the receding knoll in the undulang landsc ape.



View south, approaching the house and the boundary of the LPZ.

10 - LANDSCAPE PRESERVATION ZONE MITIGATION MEASURES

In reinvigorang` the historic landscape and evolving it into a public amenity, there are a number of mitigaon` measures to be incorporated so that it reads as a designed demesne parkland. The historic setting had a relaonship` with the estuary and distant hills. As that has been altered and urban development encroached on all sides, the aim is to create amenity where users can escape the urban surrounds and experience different natural and historic environments

Diagram illustrating mitigation measures to improve amenity and interpretation.

Mitigation 1 - Ice House - Full cleaning and resculpng` of base per Archaeologist guidance. Provide interpretation. Provide a visual gap to new development for secondary supervision.

Mitigation 2 - Perimeter Path - Conguous` link from Entrance gates to Folly. Upgrade path and make it inviting. Enhance for biodiversity.

Mitigation 3 - The Pond - Remove Cherry Laurel from islands. Create pedestrian bridge across 2 islands (retain existing stone bridge, but do not use). Remove vegetaon aàt northeast corner of pond for visual link back to house and parkland.

Mitigation 4 - Pond System - In accordance with SuDS, incorporate all surfacewater into a natural swale filtration system to regularly replenish and cleanse the pond.

Mitigation 5 - Link Path - Re-establish a western link path.

Mitigation 6 - Ornamental Trees - Incorporate a couple of clusters of showy parkland tree planting, resonant of historic planting regimes, but small in stature to ensure continued long range views.

Mitigation 7 - Open Up Parkland - Improve the historic north-south path. Remove 90% of tree belt to amalgamate parkland and increase visibility.

Mitigation 8 - Remove car parking from within the LPZ and relocate to the north. Create an amenity square at the Grotto to link with the Folly avenue, as a public gathering and interpretation point.

Mitigation 9 - Outside the LPZ, provide an amenity landscape incorporang` a commemorative space, community garden focal point or modern landscape amenity. Consider reducing the derelict road.

Mitigation 10 - Provide a pedestrian link over the railway amenity path, for ease of access to Mahon office and retail area.

11 - REFERENCE IMAGES

The aim is to restore the pond with a character pertinent to the me` period where it received greatest amenity interacon.` Reinvigoraon` of the pond water should be coupled with Laurel removal on the islands and new footbridges to enhance the amenity. This image illustrates an ambience that we want visitors to experience.

Pond restoraon` is intended to work in tandem with site stormwater soluons.` Creang` a sustainable drainage system that can remove surfacewater naturally and feed the pond with regular, fresh water is the desired design technique. This image illustrates an undulang` parkland collecting and mitigating stormwater.

Within the southern open space, tree planng` should be minimal in order to retain long range views. This minimal quanty` should be presented as clusters of small canopy ornamental trees with spring flowers and autumn leaf colour to demarcate the seasons. Crabapple (le) or Cherry` would be suitable species and relevant to the historic setting as classic ornamental trees.

Within the north and northwest parklands, tree planng` should consist of large canopy tradional` native and acclimased` trees. Mature canopies should be able to exceed 20m in height or width. These could be Oak (le),` Ash, Lime (right), Beech, Plane or Chestnut; being cognisant of horticultural threats at the time of selection and installation.

12 - CONCLUSION

The landscape at Besborough has been evolving in a managed way for 260 years. Over this period, landowners with different approaches to the landscape have le` their mark on the demesne. The current Development Plan has classified the bulk of the site as being within the *Landscape Preservation Zone* (LPZ). The research in this report comes to the conclusion that not all of this site should be classified as LPZ. Many parts, parcularly` north-northwest of the house, are not fundamental in contribung` to a historic seng` or defining the demesne landscape character.

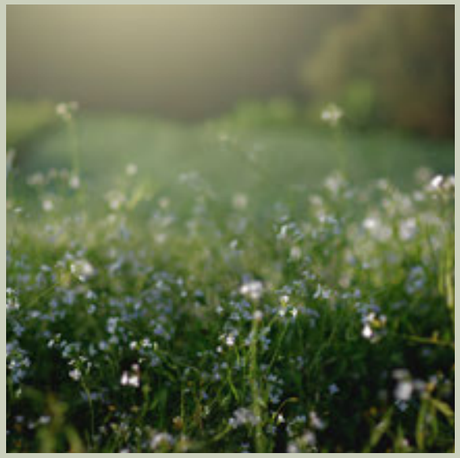
The diagram in Part 8 idenfies` the key elements that give the house its' landscape character. The diagrams in Parts 9 and 10 illustrate how the LPZ should be defined and the key measures that need to be carried out to ensure the proper historic fabric is retained and suitably enhanced.

There is no single period of landscape significance at this demesne. The period of the late 1700-early 1800s provided a layout, tree planting and landform that have carried through to today. The period of the mid-late 1800's could be considered the apex in terms of landscape amenity, as society and lifestyle experienced notable changes and the landowners appeared to have taken on a number of landscape leisure features. Equally impacul` is the change in landscape use that occurred in 1922 and carried through most of the 20th century. It could be said that this period had the greatest cultural and societal impact on the site.

To this day, the site is evolving in terms of community services, but devolving in terms of landscape (N40 construcon,` derelicon` of large areas). Our current culture, lifestyle and societal relaonship` to the landscape seem to mirror this speed of change. If the site were to be managed as-is in perpetuity, we would certainly see the loss of irreplaceable historic landscape. Part of the benefit in developing the less-historically pertinent areas is creang` a community to oversee the site and take a degree of personal stewardship in it. The potenal` for the public to receive these lands as fully accessible parkland is a rare opportunity. At the same time, site use must evolve in order for the public-landscape relationship to be successful.

If zoned and developed as per the guidelines in this report, I believe the landscape character can be not just retained, but brought back to life for the benefit of the general public. In doing so, the historic framework and qualities will be clearly understood for generations to come.

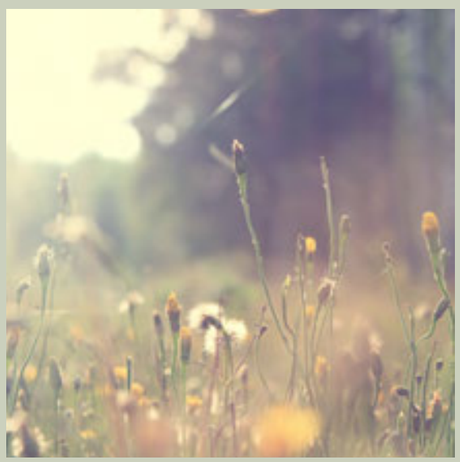
End of Report



BESSBOROUGH, CORK

APPENDIX 5

Material Assets – Traffic & Transportation



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APPENDIX 5

Material Assets – Traffic & Transportation

- Appendix 5-1 A Traffic and Transport Assessment prepared by **the Egis Group**
- Appendix 5-2 – Mobility Management Plan

- Appendix 5-1 – A Traf ic and Transport Assessment prepared by the Egis Group

PROPOSED LARGE-SCALE RESIDENTIAL DEVELOPMENT – PHASE 1 "THE FARM" IN BESSBOROUGH, BLACKROCK, CORK

Traffic and Transport Assessment

20 November 2025

Document Information

GENERAL INFORMATION

Client:	Estuary View Enterprises 2020 Limited
Project Title:	Proposed Large-Scale Residential Development – Phase 1 "The Farm" in Bessborough, Blackrock, Cork
Report Title:	Traffic and Transport Assessment
File Name:	25629-EEI-ZZ-ZZ-RP-C-00001_Traffic and Transport Assessment

HISTORY OF CHANGES

DOCUMENT REVISION				DOCUMENT VERIFICATION			
Issue Date (DD/MM/YY)	Revision	Suitability	Author(s) (initials)	Checker(s) (Initials)	Reviewer(s) As per PMP (initials)	Approver(s) as per PMP (initials)	Peer Review (initials or N/A)
20/11/2025	P01	S3	KCL	TF	TF	TF	N/A

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List of Abbreviations

- ARCADY: Assessment of Roundabout Capacity and Delay
- CCC: Cork City Council
- CMATS: Cork Metropolitan Area Transport Strategy
- CEMP: Construction and Environmental Management Plan
- DART: Dublin Area Rapid Transit
- DMURS: Design Manual for Urban Roads and Streets
- DOS: Degree of Saturation
- EV: Electric Vehicle
- HGV: Heavy Goods Vehicle
- LGV: Light Goods Vehicle
- MMP: Mobility Management Plan
- NTA: National Transport Authority
- OGV 1: Oversize Goods Vehicle Type 1
- OGV 2: Oversize Goods Vehicle Type 2
- PCU: Passenger Car Unit
- P/C: Pedal Cycle
- PSV: Public Service Vehicle
- TII: Transport Infrastructure Ireland
- TRICS: Trip Rate Information Computer System
- TRL: Transport Research Laboratory
- TTA: Traffic and Transport Assessment

1 INTRODUCTION

1.1 Background

Estuary View Enterprises 2020 Limited is applying for Planning Permission to Cork City Council (CCC) for a proposed Large-Scale Residential Development (LRD) – Phase 1 "The Farm" in Bessborough, Blackrock, Cork as shown in **Figure 1.1**. EGIS was commissioned to undertake a Traffic and Transport Assessment (TTA) to support the planning application for the captioned development.

FIGURE 1.1 – LOCATION OF PROPOSED PHASE 1 DEVELOPMENT
(SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

A developed masterplan for the site proposes three phases of entire development as shown in **Figure 1.2**. The key development of each phase is described as follows:

- Phase 1 - "The Farm" development: comprises 140 no. apartment units, creche and café;
- Phase 2 - "The Meadows" development: comprises c. 280 no. apartment units and creche; and
- Potential Phase 3 - "The North Fields" development: comprises c. 200 no. residential units.

This assessment will focus on two areas: the proposed Phase 1 "The Farm" development and the entire development (including Phase 1 to Phase 3).

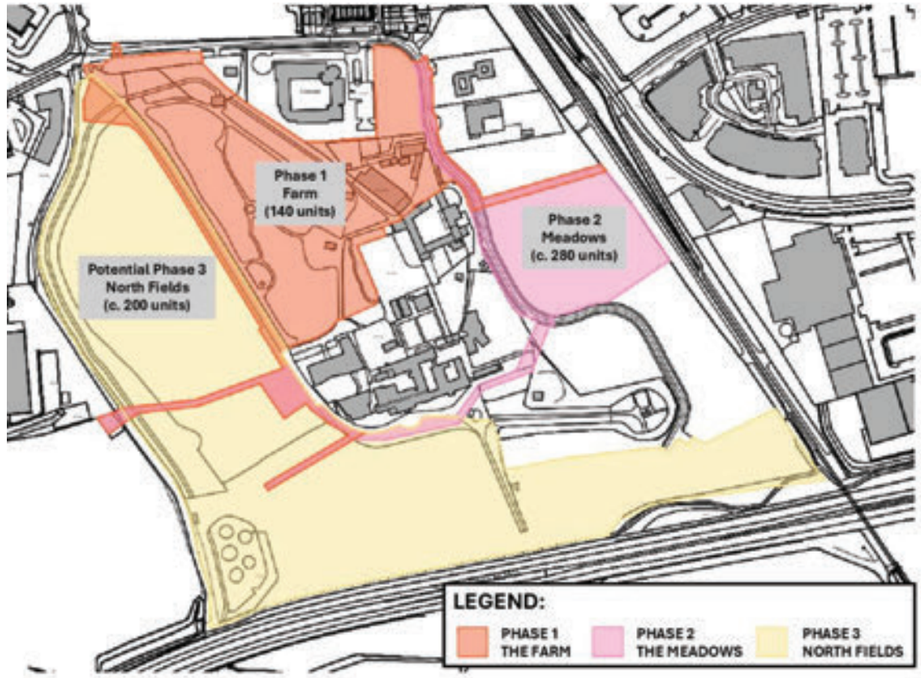

FIGURE 1.2 – PROPOSED PHASED DEVELOPMENT OF SITE

1.1.1 Permission Granted

At the time of writing, six other developments in the vicinity of the proposed development have obtained planning permission as shown in **Figure 1.3**.

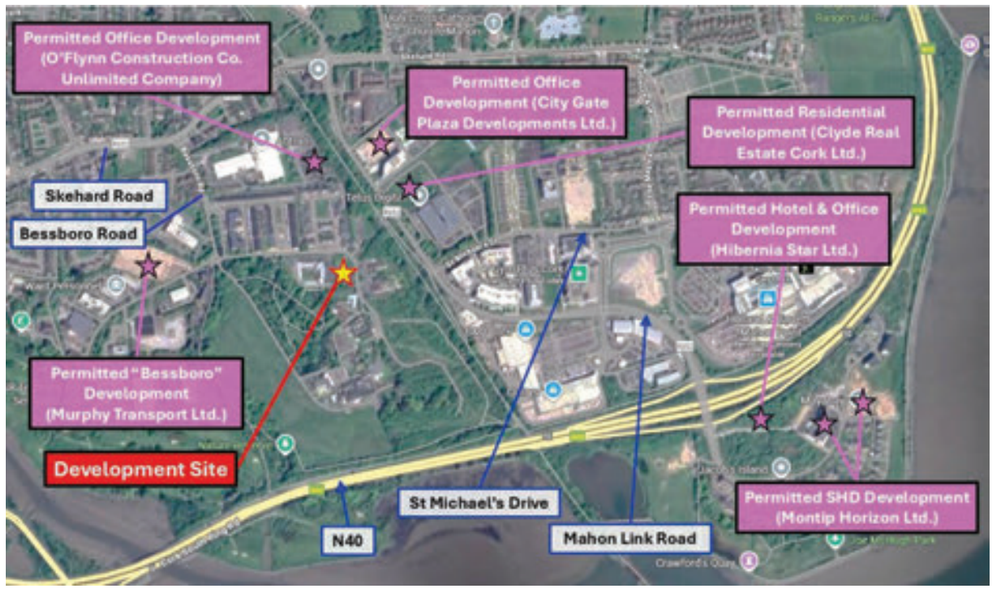

FIGURE 1.3 – LOCATION OF PERMITTED DEVELOPMENTS
(SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

This TTA assessment has considered those permitted developments, and the description of those permitted developments is listed as follows.

1.1.1.1 Permitted Hotel and Office Development (Hibernia Star Ltd.)

Under planning application reference no. 22/40809, permission was granted for construction of an office with 10,632 m^2 GFA and hotel with 165 no. bedrooms in July 2022. At the time of traffic count surveys in October 2025, this development is still not commenced.

1.1.1.2 Permitted SHD Development (Montip Horizon Ltd.)

Under planning application ABP case reference no. ABP-301991-18 as amended by the reference nos. ABP-310378-21, 23/41994 and 23/42275, permission was granted for construction of 440 no. apartment units, retail and creche in October 2023. At the time of traffic count surveys in October 2025, this development is under construction.

1.1.1.3 Permitted Office Development (O'Flynn Construction Co. Unlimited Company)

Under planning application reference no. 19/38875, permission was granted for construction of office with 12,004 m^2 GFA in March 2020. At the time of traffic count surveys in October 2025, this development is still not commenced.

1.1.1.4 Permitted "Bessboro" Development (Murphy Transport Ltd.)

Under planning application reference no. 17/37349, permission was granted for construction of 35 houses in March 2017. At the time of traffic count surveys in October 2025, this development is under construction.

1.1.1.5 Permitted Office Development (City Gate Plaza Developments Ltd.)

Under planning application reference no. 18/38036 as amended by the reference no. 24/42822 was granted for construction of two office buildings with total 12,125 m^2 GFA in July 2024. At the time of traffic count surveys in October 2025, this development is under construction.

1.1.1.6 Permitted Residential Development (Clyde Real Estate Cork Ltd.)

Under planning application reference no. 21/40196 as amended by the reference nos. ABP-314310-22 and 24/43351, permission was granted for construction of 196 no. apartment units and creche in January 2025. At the time of traffic count surveys in October 2025, this development is still not commenced.

1.1.2 Proposed Development

The proposed Phase 1 - "The Farm" development includes:

- Provision of 140 apartment units (comprising of 70 no. one-bedroom, 69 no. two-bedroom and 1 no. three-bedroom);
- Provision of one creche with 25 children;
- Provision of a café;
- Provision of new pedestrian / cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing access to the greenway and wider areas; and
- Associated roads, footpaths, private driveways, site services, SuDS measures, shared communal facilities, building management facilities (including plant and storages), substation, playground and outdoor amenity spaces, landscaping, on-street car parking spaces, bicycle parking spaces, bin stores, public lighting and sundry related works.

1.2 Objectives

The assessment reviews the existing road network, including pedestrian/cycle and public transport provision in the vicinity of the site, estimates the traffic generated by the permitted developments and proposed

development, and outlines the access strategy for the site. The predicted traffic impact on the local road network will be assessed and possible mitigation measures, where appropriate, will be discussed.

To summarise, this assessment includes the following tasks:

- Review of the existing infrastructure and traffic conditions;
- Review of the proposed development;
- Estimate the trips generated from the permitted developments and proposed development in the morning and evening peak hours and the distribution onto the local road network;
- Estimate the traffic growth rates and calculation of predicted future traffic volumes;
- Identify and quantify the likely traffic impacts on the surrounding road network resulting from the development;
- Propose mitigation measures (if required) to offset any impact the development may have;
- Identify any potential safety issues, in particular impacts on vulnerable road users in the study area; and
- Identify parking requirements.

The assessment is based on the findings of site visits, traffic observations, on-site traffic counts, architectural plans and discussions with the design team.

Following analysis of the surrounding area, it was determined that the study area would include the following four junctions surrounding the development. The selection of these junctions was agreed in pre-planning discussions with Cork City Council and are the junctions which were assessed previously under the SHD application for The Farm development.

- Junction 1 – Bessboro Road / Bessboro Access Road Roundabout;
- Junction 2 – Skehard Road / Bessboro Road;
- Junction 3 – Church Road / Skehard Road; and
- Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road.

These junctions were selected as they are considered the junctions most likely to be affected by traffic associated with the proposed development. The locations of these four junctions are illustrated in **Figure 1.4**.

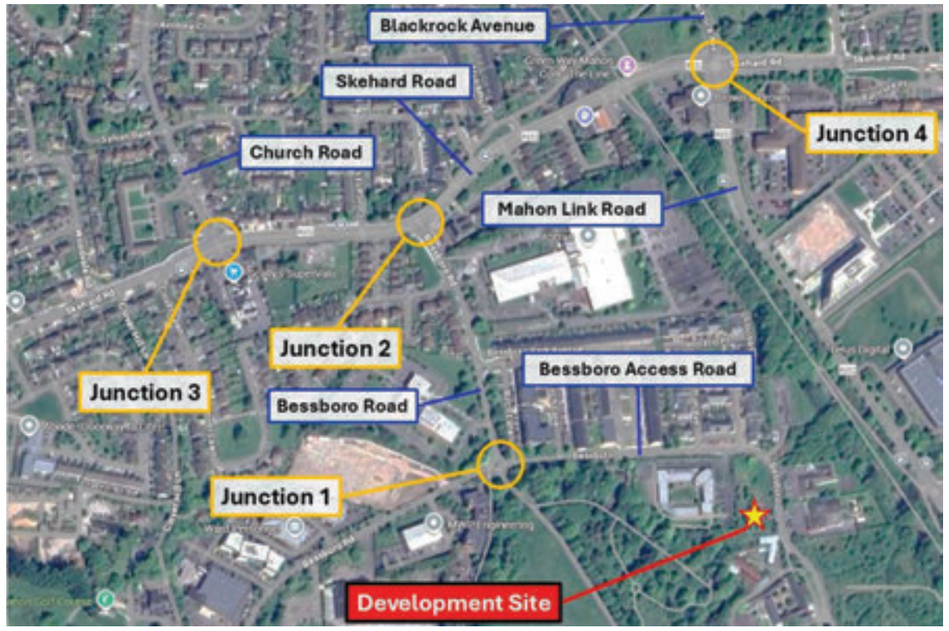

FIGURE 1.4 – RELEVANT JUNCTIONS WITHIN THE STUDY AREA (SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

1.3 Methodology

The transport assessment is prepared based on TII's 'Traffic and Transportation Assessment Guidelines' (2014) and is developed using data from commissioned traffic counts at relevant junctions, the 'Trip Rate Information Computer System' (TRICS) database and 2022 Census. Other relevant documents referenced include:

- TII Traffic and Transport Assessment Guidelines;
- TII Publications Project Appraisal Guidelines for National Roads document 'Unit 5.3 Travel Demand Projections' (issued in October 2021);
- Design Manual for Urban Roads and Streets (DMURS);
- Cork City Development Plan 2022-2028;
- Cork Metropolitan Area Transport Strategy (CMATS);
- Cycle Network Plan for the Cork City Metropolitan Area and surrounding towns (issued in 2020);
- Cycle Design Manual (September 2023); and
- Smarter Travel – A New Transport Policy for Ireland 2009-2020.

To assess the operational traffic implications of the proposed development on the local road network, the following methodology is adopted, which incorporates a number of key inter-related stages. These following steps are used to identify and assess traffic and transport impacts:

- **Background Review:** This important exercise incorporates a number of tasks which include an examination of the local regulatory and development management documentation, namely the Cork City Development Plan 2022-2028, and CMATS, and an analysis of previous 'transport' related, strategic and site-specific studies of development and transport infrastructure in the Cork area.
- **Site Layout:** Reference was made to site layout drawings issued by the design team and the proposed plans for the site.
- **Site Audit:** A site audit was undertaken to quantify any existing road network issues and identify local infrastructure characteristics, in addition to establishing the level of accessibility to the site in terms of walking, cycling and public transport.
- **Traffic Counts:** Traffic counts were completed for the 'affected junctions' with the objective of establishing local traffic characteristics in the immediate area of the proposed development.
- **Trip Generation:** A trip generation exercise was carried out to establish the potential level of vehicle trips generated by the proposed development.
- **Trip Distribution:** Based on both existing and future (following development completion) network characteristics, a distribution exercise was undertaken to assign site generated vehicle trips across the local road network along with the quality of the available routes.
- **Network Analysis:** Further to quantifying the predicted impact of vehicle movements across the local road network and the proposed site accesses, traffic modelling is undertaken to assess the operational performance of the key junctions in the post-development years.

2 RECEIVING ENVIRONMENT

2.1 Site Location

The proposed development site is located in Bessborough, Blackrock, Cork, within the South East Suburb of Cork City as defined by the Cork City Development Plan 2022-2028 and the site is situated approximately 5 kilometres to the south-east of Cork City as shown in **Figure 1.1**. The site is an existing, mostly greenfield site located east of Bessboro Road, south of Skehard Road / Bessboro Access Road, west of Mahon Link Road and north of N40 (refer to **Figure 1.4**). An access to the site will be gained directly from the Bessboro Access Road. The speed limit on the Bessboro Access Road is 50kph. See **Section 4** below for further details of the development accesses and road network.

2.2 Local Road Network

The local road network in the vicinity of the subject site is illustrated graphically in **Figure 1.4**. The roads in the vicinity of the proposed development are described in the following sections.

2.2.1 Bessboro Access Road

Bessboro Access Road is located to the east and-north of the proposed development, and it is a bi-directional two-lane single carriageway with road pavement width of approximately 5.5 metres. This road provides connection between the proposed development and Bessboro Road. An access to the site will be gained directly from the Bessboro Access Road. A pedestrian footpath is partially present along both sides of the road, but no cycle track/lane exists as shown in **Figure 2.1**.

FIGURE 2.1 – BESSBORO ACCESS ROAD (SOURCE: GOOGLE MAPS)

2.2.2 Bessboro Road

Bessboro Road is located to the northwest of the proposed development, and it is a bi-directional two-lane single carriageway with road pavement width of approximately 7.5 metres and some flare lanes at junctions. This road provides a connection between Bessboro Road and the R852 – Skehard Road. A pedestrian footpath is present along both sides of the road, but no cycle track/lane exists as shown in **Figure 2.2**.

FIGURE 2.2 – BESSBORO ROAD (SOURCE: GOOGLE MAPS)

2.2.3 Skehard Road

Skehard Road is located to the north of the proposed development. This road is a part of the R852 which provides connection between the N27 and the N40, and thereafter to Cork City to the north. Skehard Road is a bi-directional four-lane single carriageway (two lanes for each traffic direction, including one bus lane for each direction of travel) with road pavement width of approximately 11.5 metres and some flare lanes at junctions. A pedestrian footpath is present along both sides of the road, but no cycle track/lane exists as shown in **Figure 2.3**.

FIGURE 2.3 – SKEHARD ROAD (SOURCE: GOOGLE MAPS)

2.2.4 Mahon Link Road

Mahon Link Road is located to the east of the proposed development and it is also a part of the R852. This road is a major road linking between the Skehard Road and N40 via Mahon Point Shopping Centre. The northern section of this road near Skehard Road is a bi-directional four-lane single carriageway (two lanes for direction of traffic flow, including one bus lane for each direction of flow) with road pavement width of approximately 12 metres. A pedestrian footpath is present along both side of this section of road, but no cycle track/lane exists as shown in **Figure 2.4**.

The southern section of this road near City Gate Plaza is a bi-directional two-lane single carriageway with carriageway width of approximately 6 metres. A pedestrian footpath and cycle lane are present along both sides of this section of road as shown in **Figure 2.5**.

FIGURE 2.4 – MAHON LINK ROAD NEAR SKEHARD ROAD (SOURCE: GOOGLE MAPS)

FIGURE 2.5 – MAHON LINK ROAD NEAR THE CITY GATE PLAZA (SOURCE: GOOGLE MAPS)

2.3 Existing Cycling and Pedestrian Facilities

The site is connected to the surrounding public footpath network via the footpaths on the Bessboro Access Road, Bessboro Road, Skehard Road, etc. The existing footpath network can provide connection between the proposed development and the wider Mahon / Blackrock area (i.e. Mahon Point Shopping Centre, Passage West Greenway, etc.).

There is no cycle track/lane on the Bessboro Access Road, Bessboro Road and Skehard Road as shown in **Figure 2.1** to **Figure 2.3**. However, the nearest access to the Passage West Greenway, which is an A-rated cycle facility between Cork City and Passage West, from the proposed development is located near the Junction 4 - Blackrock Avenue / Skehard Road / Mahon Link Road Junction as shown in **Figure 2.6** and cyclists are expected to share the carriageway with motorists for approximately 950 metres along the Bessboro Access Road, Bessboro Road and Skehard Road to access this greenway. Additionally, the nearest cycle lane is located at Mahon Link Road (near the City Gate Plaza) as shown in **Figure 2.5** and cyclists are expected to share the carriageway with motorists for approximately 1.2 kilometres along the Bessboro Access Road, Bessboro Road, Skehard Road and Mahon Link Road to access this cycle lane.

To enhance connectivity between the proposed development and the Passage West Greenway / Mahon Link Road, it is proposed to construct a new pedestrian / cycle bridge (refer to **Figure 2.6**) over the adjoining Passage West Greenway to the west as a part of proposed development. **Figure 2.6** illustrates the existing and potential routes for pedestrians and cyclists access to the Passage West Greenway from the proposed development.

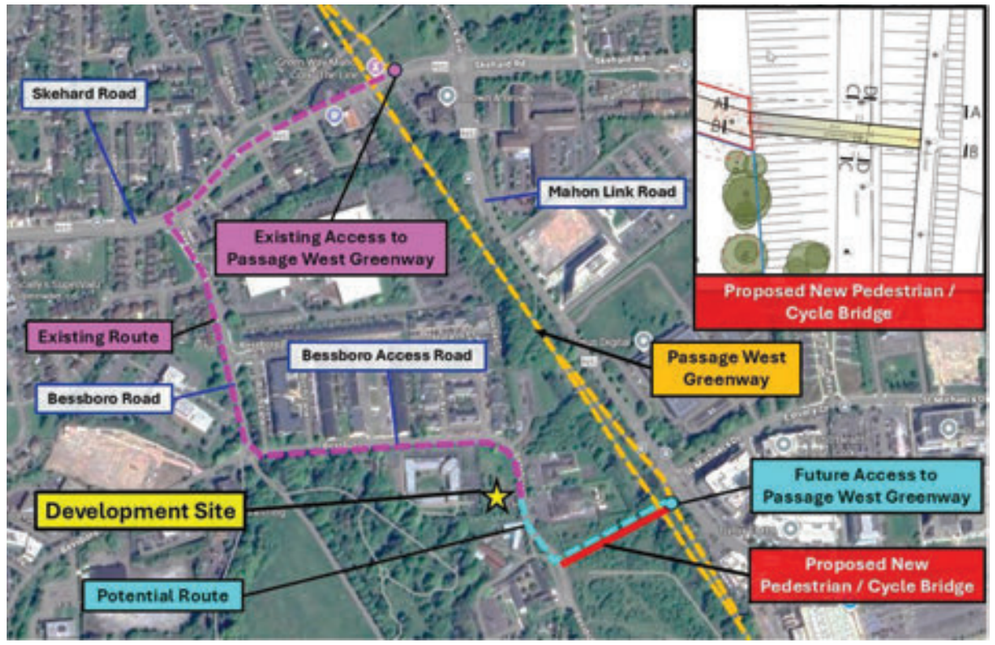

FIGURE 2.6 – EXISITNG AND POTENTIAL ROUTES BETWEEN THE PROPOSED DEVELOPMENT AND PASSAGE WEST GREENWAY (SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

2.4 Proposed Cycling Network

The Cycling Network Plan for the Cork City Metropolitan Area and surrounding towns was finalised and published in 2020. Cork Metropolitan Area Transport Strategy (CMATS) takes cognisance of the 2017 Cycle Network Plan and for the Cork City Southeast area the plan envisages a network of primary, secondary, greenway and feeder cycle routes. The cycling proposal for the site environs are illustrated in **Figure 2.7**. As outlined in the Plan, it is proposed to introduce three primary cycle corridors (including CSE-U18 along Mahon Link Road, CSE-U15 along Bessboro Road and the Bessboro Access Road and CSE-U14 along Skehard Road) in the vicinity of the proposed development. Additionally, two greenways (including PW-GW1, which is Passage West Greenway, and CSE-GW3) are proposed in the vicinity of the proposed development.

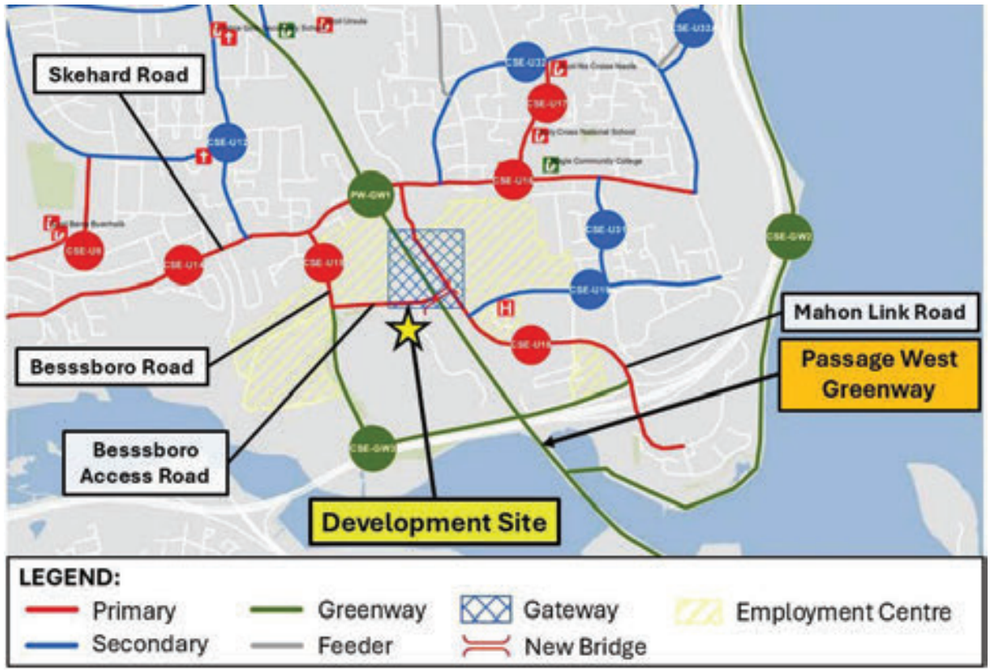

FIGURE 2.7 – CYCLING PROPOSAL FOR THE SITE ENVIRONS
(SOURCE: CORK CYCLE NETWORK PLAN – CORK CITY SOUTHEAST & ENVIRONS AREA, ANNOTATION BY EGIS)

2.5 Public Transport

2.5.1 Existing Public Transport

An audit of existing facilities and nearby transport was undertaken for the development site in the course of developing this TTA. The existing public transport facilities in the area surrounding the proposed development are detailed below.

2.5.1.1 Train Services

The closest train station to the proposed development is Cork (Kent) Train Station, which is located approximately 5.6 kilometres walking distance (approximately 67-minute walk or a 28-minute cycle) from the proposed development as shown in **Figure 2.8**. At the time of writing, the frequency of train services provided at Cork (Kent) Train Station are shown in **Table 2.1**. Exact times can be found on the Irish Rail website (https://www.irishrail.ie/en-ie/station/cork-kent).

FIGURE 2.8 – LOCATION OF CORK (KENT) TRAIN STATION
(SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

TABLE 2.1 – TRAIN SERVICES AT CORK (KENT) TRAIN STATION (WWW.IRISHRAIL.IE)

Train Direction	Frequency of Services at Cork (Kent) Train Station		
	Mon – Fri	Sat	Sun
Heuston Station / Mallow Station – Cork (Kent) Station	16 services (06:00 – 21:00)	15 services (07:00 – 21:00)	12 services (10:00 – 21:00)
Cork (Kent) Station – Heuston Station / Mallow Station	16 services (05:40 – 20:25)	14 services (05:45 – 20:25)	13 services (08:25 – 19:25)
Mallow – Cork – Midleton – Cobh	63 services (05:30 – 23:00)	49 services (05:45 – 23:00)	31 services (08:00 – 23:00)
Cobh – Midleton – Cork – Mallow	63 services (06:00 – 23:30)	49 services (06:15 – 23:30)	31 services (08:30 – 23:30)

Note: 1) The rail fares and tickets details can be referenced here: https://www.irishrail.ie/en-ie/rail-fares-and-tickets/fares-info/dart-and-short-hop-zone.
2) The train timetable can be referenced here: https://www.irishrail.ie/en-ie/station/cork-kent.

2.5.1.2 Bus Services

There are two bus stops on Skehard Road (near the Bessboro Road / Skehard Road Junction), which are located within 750 metres walking distance (approximately 9-minute walk or a 4-minute cycle) from the proposed development (refer to **Figure 2.9**). Additionally, after completion of the proposed new pedestrian / cycle bridge over the adjoining Passage West Greenway to the west as shown in **Figure 2.6**, it will provide an alternative and a faster way to the bus stops at Mahon Link Road as shown in **Figure 2.9**. All stops are serviced by Bus Éireann. At the time of writing, the bus routes servicing this area, including the proposed development, are listed in **Table 2.2**.

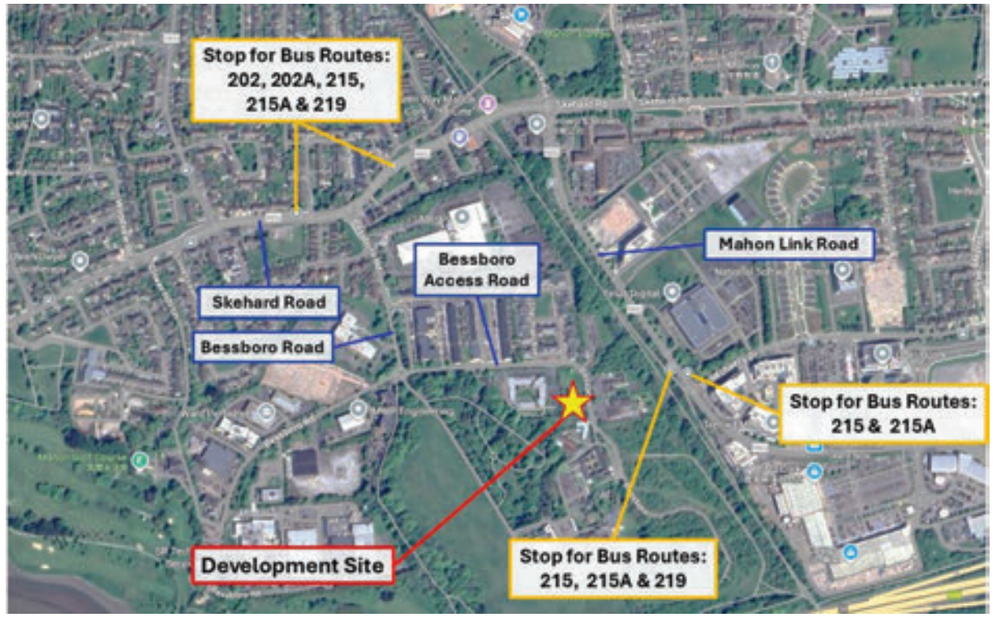

FIGURE 2.9 – BUS STOP LOCATIONS IN THE VICINITY OF THE SITE (SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

TABLE 2.2 – BUS ROUTES SERVING THE AREA

Route No.	Route Direction	Frequency of Services			Bus Stop No.
		Mon – Fri	Sat	Sun	
202	Mahon Point – Hollyhill via Merchants Quay	47 services (06:30 – 23:15)	42 services (07:15 – 23:15)	33 services (07:15 – 23:15)	Stop 242961 on Skehard Road
	Hollyhill – Mahon Point via Merchants Quay	48 services (06:25 – 23:00)	43 services (06:50 – 23:00)	33 services (07:30 – 23:30)	Stop 242851 on Skehard Road
202A	Mahon Point – Hollyhill via Eglinton Street	46 services (06:40 – 23:00)	42 services (07:00 – 23:00)	34 services (06:30 – 23:00)	Stop 242961 on Skehard Road
	Hollyhill – Mahon Point via Merchants Quay	49 services (06:10 – 23:15)	43 services (06:45 – 23:15)	33 services (07:15 – 23:15)	Stop 242851 on Skehard Road
215	Mahon Point – Cloghroe via Blarney	34 services (07:05 – 23:35)	33 services (07:35 – 23:35)	19 services (09:35 – 23:30)	Stop 242961 on Skehard Road and Stop 242941 on Mahon Link Road
	Cloghroe – Mahon Point via Blarney	34 services (06:30 – 22:35)	34 services (06:30 – 22:30)	19 services (08:30 – 22:30)	Stop 242851 on Skehard Road and Stop 242881 on Mahon Link Road
215A	Jacobs Island – South Mall via Boreenmanna	24 services (07:15 – 18:50)	No service	No service	Stop 242961 on Skehard Road and Stop 242941 on Mahon Link Road
	South Mall – Jacobs Island via Boreenmanna	24 services (06:45 – 18:20)	No service	No service	Stop 242851 on Skehard Road and Stop 242881 on Mahon Link Road
219	Ringmahon – MTU via Douglas and Togher	12 services (07:00 – 18:05)	No service	No service	Stop 242961 on Skehard Road and Stop 242941 on Mahon Link Road
	MTU – Ringmahon via Togher and Douglas	13 services (07:00 – 18:50)	No service	No service	Stop 242851 on Skehard Road and Stop 242941 on Mahon Link Road

Note: 1) The bus timetable can be referenced here; https://buseireann.ie/routes-and-timetables.

2.6 Emerging Transport Developments

2.6.1 Proposed Public Transport

2.6.1.1 BusConnects

According to the new design for the Cork Metropolitan Bus Network launched by NTA in June 2022, the new network, part of BusConnects Cork, is intended to transform the public transport network across the Cork Metropolitan Area by the creation of new bus routes and improving bus frequencies to help transform the public transport network to meet anticipated growth and future demand in the region. As a part of the BusConnects Scheme, four new bus routes are proposed in close proximity to the proposed development. **Figure 2.10** and **Figure 2.11** taken from the latest BusConnects proposal, illustrates these new routes in the vicinity of the proposed development. It is proposed to introduce the following bus routes:

- Bus Route 4 will operate between Jacobs Island and Lehenaghmore via the City Centre (with frequency of 15-30 minutes) and will pass via Mahon Link Road and Skehard Road;
- Bus Route 14 will operate between Cork University Hospital and Jacobs Island (with frequency of 15-30 minutes) and between Cork University Hospital and Little Island (with frequency of 30 minutes), and will pass via Mahon Link Road and Skehard Road;
- Bus Route 1 will operate between Ovens (Dell EMC) and Mahon Point (with frequency of 10-60 minutes) and will pass via Skehard Road; and
- Bus Route 20 will operate between Bessboro and Cork (Kent) Train Station (with frequency of 60 minutes) and will pass via the proposed development on the Bessboro Access Road.

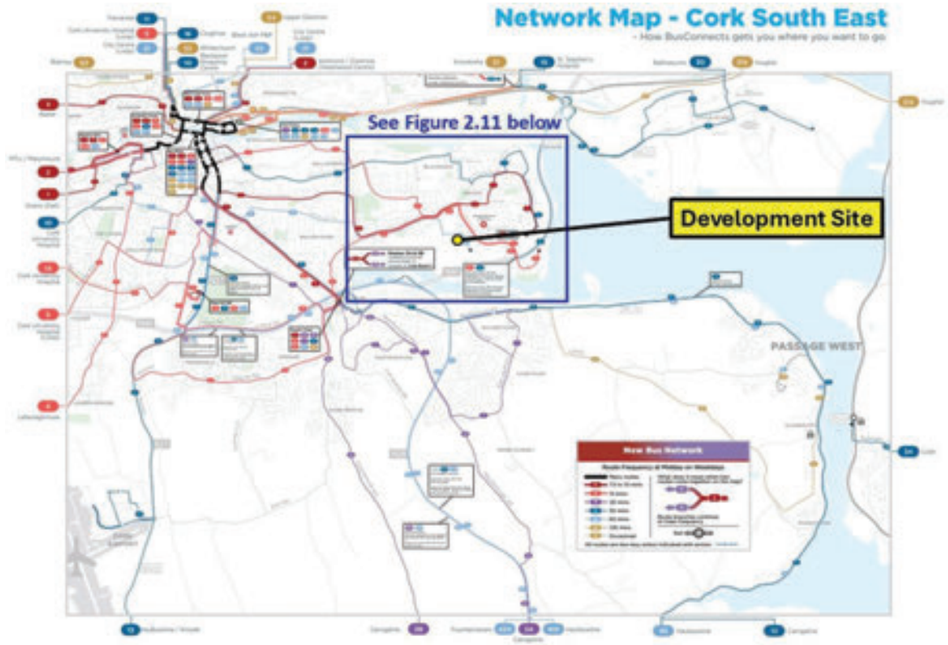

FIGURE 2.10 – BUSCONNECTS NETWORK MAP SHOWING THE SITE LOCATION
(SOURCE: NETWORK MAP – CORK SOUTH EAST FROM THE NEW BUS NETWORK REPORT, ANNOTATION BY EGIS)

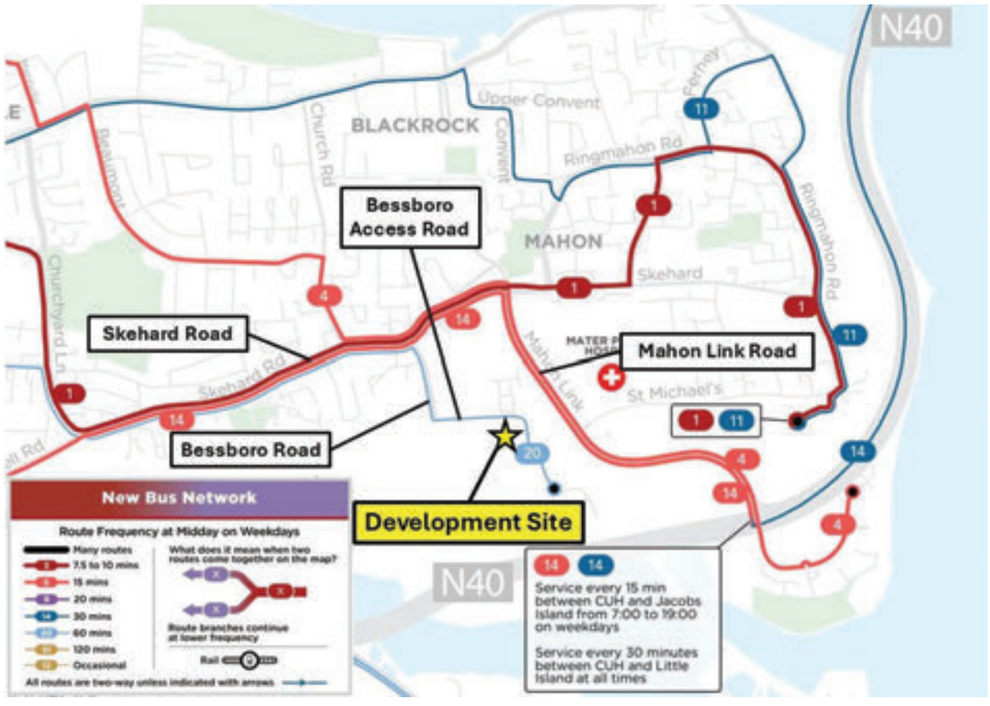

FIGURE 2.11 – PROPOSED BUSCONNECTS ROUTES IN THE VICINITY OF THE PROPOSED DEVELOPMENT
(SOURCE: NETWORK MAP – CORK SOUTH EAST FROM THE NEW BUS NETWORK REPORT, ANNOTATION BY EGIS)

2.6.1.2 Proposed Light Rail Transit / Luas Cork

The Cork City Development Plan (2022-2028) also makes specific references to a proposed Light Rail Transit (LRT) to connect Ballincollig to Mahon via Cork City Centre to support future development (refer to **Figure 2.12**). It should be noted that the proposed location of a new Greenway Luas stop is close to the St. Michael's Drive / Mahon Link Road Junction. After completion of the new pedestrian / cycle bridge over the adjoining Passage West Greenway to the west as shown in **Figure 2.6**, the new Greenway Luas stop is located approximately 600 metres walking distance (approximately 7-minute walk or a 3-minute cycle) from the proposed development.

FIGURE 2.12 – PROPOSED LIGHT RAIL ROUTE AND STOPS
(SOURCE: *HTTPS://CONSULT.TII.IE/LUAS-CORK*, ANNOTATION BY EGIS)

To increase the viability of the light rail system, it is necessary to develop lands along the route corridor. This has recently been outlined by the National Transport Authority (NTA) to Cork City Council. The proposed development is ideally situated to promote the need for light rail in Cork. This type of development, close to existing and proposed future sustainable transport links, will assist in creating the modal shift required from private vehicle to public transport, walking and cycling.

Given that Light Rail is a medium-long term objective in CMATS, a BusConnects service along the same route can be considered a precursor to light rail.

After analysing a range of options, Transport Infrastructure Ireland (TII) published the Emerging Preferred Route for Luas Cork in April 2025 and an 8-week public consultation period was open until June 2025. The Emerging Preferred Route extends from the east of the city to the west – from Mahon Point to Ballincollig.

2.6.2 Proposed Bessboro to Mahon Pedestrian and Cycle Safety Scheme by Cork City Council

In discussions with Cork City Council it is understood that they propose to implement a "Bessboro to Mahon Pedestrian and Cycle Safety Scheme" in order to enhance the pedestrians and cyclists facilities along Bessboro Road. **Figure 2.13** illustrates a draft of captioned scheme. This scheme will encourage a shift to more sustainable modes of transport and provide safer facilities particularly for children walking and cycling to school, but also for adults and families travelling to and from the town centre and beyond.

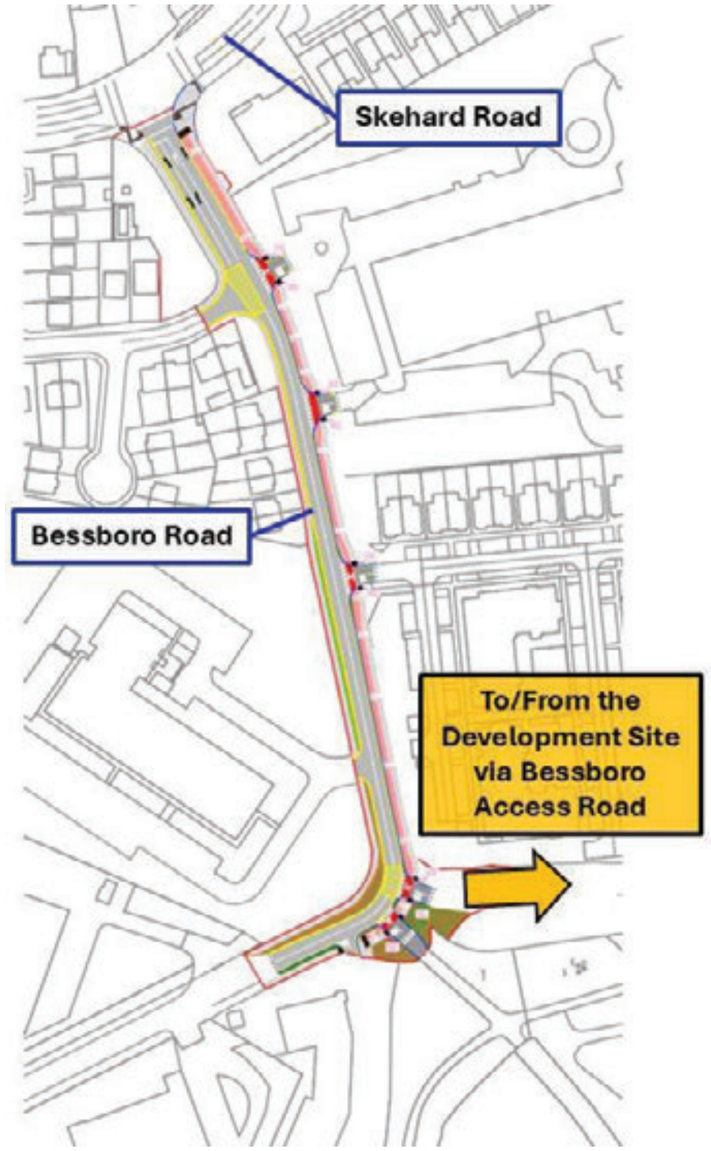

FIGURE 2.13 – DRAFT BESSBORO TO MAHON PEDESTRIAN AND CYCLE SAFETY SCHEME

3 BASE YEAR 2025 – TRAFFIC VOLUMES

3.1 Traffic Survey

In order to determine current traffic behaviour in the vicinity of the subject site, vehicle turning movement surveys were undertaken on Friday, 3rd October 2025 and Saturday, 4th October 2025 at the six junctions near the site (see **Figure 3.1**). As discussed in Section 1.2, Junction 1 to Junction 4 were selected for assessment as they are considered the junctions most likely to be affected by traffic associated with the proposed development. The vehicle turning movement survey at Junction 5 and Junction 6, which provide direct access to the nearby existing residential development with 135 units (with Planning Application reference no. 18/37820) as shown in **Figure 3.1**, has been used to calculate the existing trip rates of this residential development adjacent to the proposed development.

- Junction 1 – Bessboro Road / Bessboro Access Road Roundabout;
- Junction 2 – Skehard Road / Bessboro Road;
- Junction 3 – Church Road / Skehard Road;
- Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road;
- Junction 5 – Bessboro Road / Western Access to the nearby Residential Development; and
- Junction 6 - Bessboro Access Road / Eastern Access to the nearby Residential Development.

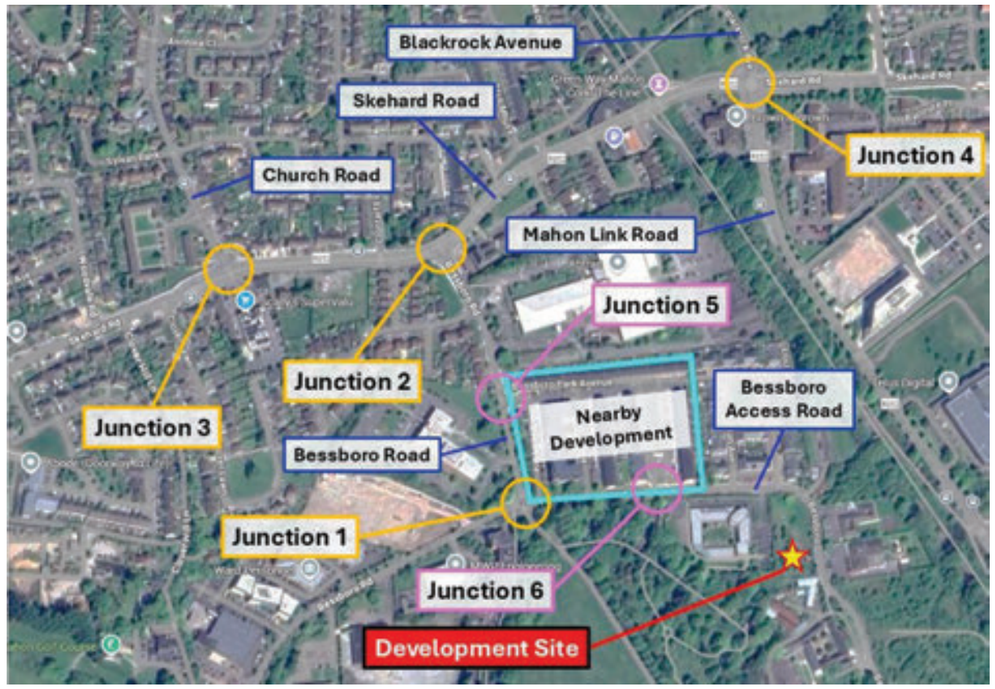

FIGURE 3.1 – TRAFFIC COUNT LOCATIONS
(SOURCE: GOOGLE MAPS, ANNOTATION BY EGIS)

The counts captured all turning movements at these junctions. The count was carried out over the 12-hour period from 07:00 hours to 19:00 hours and included both the morning and evening peak periods. The count was designed to identify the critical peak hour periods of traffic flow through the adjacent junctions. Data was collected in 15-minute intervals and the following count classifications were employed:

- Pedal Cycles (P/C);
- Motorcycles (M/C);

- Cars;
- Light Goods Vehicles (LGV);
- Oversize Goods Vehicles 1 (OGV 1);
- Oversize Goods Vehicles 2 (OGV 2); and
- Public Service Vehicles (PSV).

For the Weekday scenario, the morning peak hour (i.e. 07:00-10:00) was identified as 08:00-09:00 for Junction 1 to Junction 4 while the evening peak hour (i.e. 15:00-19:00) was identified as 15:00-16:00 for Junction 1, Junction 3 and Junction 4, and 16:00-17:00 for Junction 2.

For the Saturday scenario, the morning peak hour (i.e. 07:00-12:00) was identified as 11:00-12:00 for Junction 1 to Junction 4 while the evening peak hour (i.e. 12:00-19:00) was identified as 14:00-15:00 for Junction 4, 16:00-17:00 for Junction 2 and Junction 3, and 17:00-18:00 for Junction 1.

The traffic flows in the morning and evening peak hours under Weekday and Saturday scenarios are illustrated in **Table 3.1** below.

TABLE 3.1 – TRAFFIC FLOWS IN THE MORNING AND EVENING PEAK HOURS IN 2025 BASELINE YEAR UNDER WEEKDAY AND SATURDAY SCENARIOS

Junction	Peak Hour Traffic Flows (PCU[1])			
	Weekday Scenario		Saturday Scenario	
	AM Peak	PM Peak	AM Peak	PM Peak
Junction 1 – Bessboro Road / Bessboro Access Road Roundabout	408	331	110	116
Junction 2 – Skehard Road / Bessboro Road	1,524	1,547	1,218	1,361
Junction 3 – Church Road / Skehard Road	1,585	1,667	1,446	1,616
Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road	1,771	1,992	1,696	1,799

Table 3.1 demonstrates that the traffic flows in morning and evening peak hours under Weekday scenarios are greater than the peak hour traffic flows on Saturday scenarios for Junction 1 to Junction 4 inclusive. Therefore, this study will focus on the Weekday scenarios, which are the "worst-case" scenarios.

From the vehicle turning movement survey at Junction 5 and Junction 6, the highest total trips (inbound and outbound) in the morning (i.e. 07:00-10:00) and evening (i.e. 15:00-19:00) peak hours under Weekday scenario were identified as 08:00-09:00 and 16:00-17:00 respectively.

A full transcription of the turning movement surveys for Junction 1 to Junction 6 is included in **Appendix 1** herein. A summary of the 2025 vehicle turning movement surveys for the morning and evening peak hour periods for Weekday scenario is shown in **Figure 3.2** and **Figure 3.3**.

[1] *PCU means Passenger Car Unit. A passenger car equivalent is essentially the impact that a mode of transport has on traffic variables (such as headway, speed, density) compared to a single car. For example, 1 private car is equal to 1 pcu and 1 HGV is equal to 2.3 pcu*

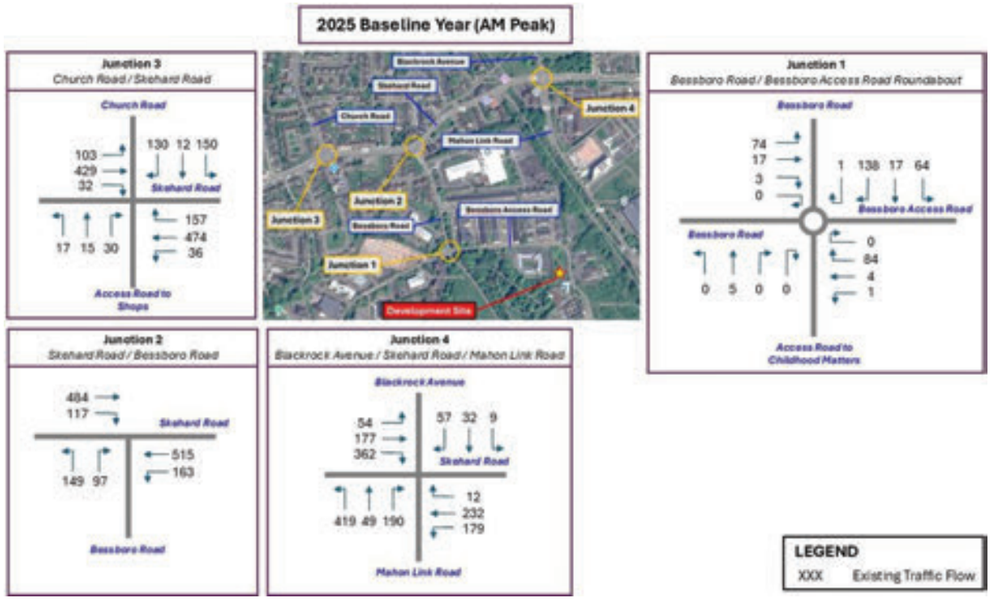

FIGURE 3.2 – 2025 BASELINE YEAR TRAFFIC FLOWS (PCU) IN THE MORNING PEAK HOUR (WEEKDAY)

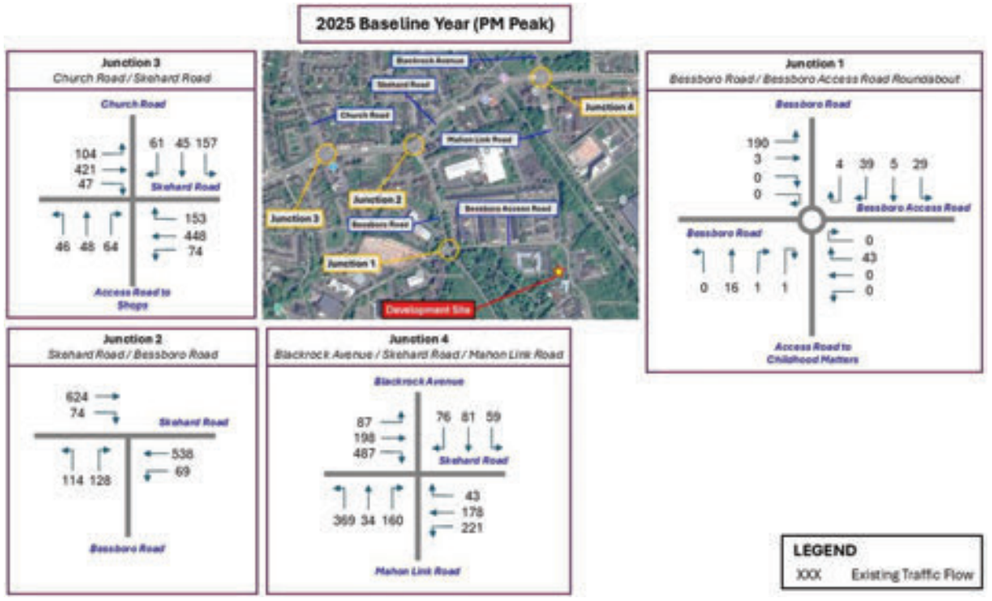

FIGURE 3.3 – 2025 BASELINE YEAR TRAFFIC FLOWS (PCU) IN THE EVENING PEAK HOUR (WEEKDAY)

4 ACCESS ARRANGEMENT FOR PROPOSED PHASE 1 DEVELOPMENT

4.1 Schedule of Accommodation (Phase 1 Development)

The proposed residential Phase 1 development includes 140 apartment units. **Table 4.1** illustrates a breakdown of these units. It should be noted that the proposed Phase 1 development also includes a creche and café.

TABLE 4.1 – BREAKDOWN OF PROPOSED PHASE 1 DEVELOPMENT (RESIDENTIAL UNITS)

No. of Bedrooms per Unit	Apartment Units
1-bedroom	70
2-bedroom	69
3-bedroom	1
Total	**140**

4.2 Access Arrangement (Phase 1 Development)

With reference to **Figure 4.1**, the proposed Phase 1 development will be served by a new priority-controlled junction providing direct pedestrian and vehicular access to/from the Bessboro Access Road, which provides a connection to Skehard Road via Bessboro Road. Also, another pedestrian access on Junction 1 – Bessboro Road / Bessboro Access Road Roundabout will be provided. Additionally, to enhance connectivity between the proposed Phase 1 development and the Passage West Greenway / Mahon Link Road, it is proposed to construct a new pedestrian / cycle bridge over the adjoining Passage West Greenway to the east (refer to **Figure 4.1**) as a part of the proposed Phase 1 development.

The Design Manual for Urban Roads and Street (DMURS), requires forward visibility on bus routes of 49 metres for a 50kph speed limit (in order to provide a robust assessment). Adequate sightlines (at least 49 metres on the Bessboro Access Road) are available commensurate with the 50kph speed limit on the Bessboro Access Road.

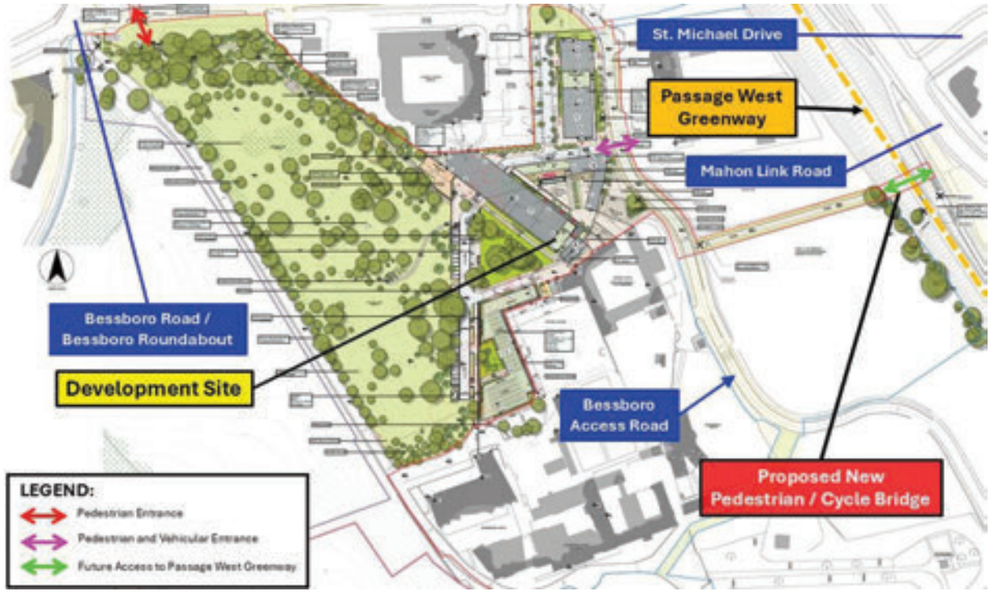

FIGURE 4.1 – ACCESS ARRANGEMENT FOR THE PROPOSED PHASE 1 DEVELOPMENT

4.3 Proposed Internal Site Access Roads

All main pedestrian crossing points will be raised by either a table-top junction or by a flat-top ramp. Tight corner radii and chicanes have been introduced with only short straight sections of access road proposed in order to introduce traffic calming by design within the development. Corner radii have been reduced to a minimum in accordance with DMURS. A strong sense of enclosure is also provided by minimal distances between building blocks, road-side trees and road-side parking.

5 TRIP GENERATION AND DISTRIBUTION – PHASE 1

5.1 Assessment Years and Development Trip Generation – Operational Stage (Phase 1)

5.1.1 Assessment Years

On the assumption that planning permission is granted for the proposed development in 2026, it is estimated that the proposed Phase 1 development will be fully operational by the year 2028.

For the purpose of this study, we will take 2028 as the Opening Year. Consequently, traffic analysis associated with this study will focus on the following future development operational scenarios:

- Phase 1 Residential Development Opening Year – 2028; and
- 15 Year Design Horizon – 2043.

5.1.2 Proposed Phase 1 Development – Trip Generation

5.1.2.1 Proposed Residential Phase 1 Development – Trip Generation (By Utilizing the TRICS Database with Mode Share)

In order to establish the level of traffic likely to be generated by the proposed residential developments, trip rates from the Trip Rate Information Computer System (TRICS) database were used. TRICS is the system of trip generation analysis for the UK and Ireland and consists of an online repository of survey data collected for various land uses and provides information on trip rates seen.

People trip rates from TRICS and modal split for the Electoral Division of "Mahon B" Area from 2022 Census has been used to estimate the trip generation for the proposed residential development.

People trip rates for the land use "Flats Privately Owned" have been used and 27 sites across Ireland and the UK, excluding Greater Dublin and Greater London, were included from the TRICS database (8.25.6) to determine the people trip rate for the proposed residential development. The full TRICS output files are contained in **Appendix 2**.

The following assumptions were adopted to estimate the modal split:

- In order to avoid some double counting, car passenger's numbers have been reduced by 20% in our assessment;
- The modal split (in total) should exclude both "Work mainly at or from home" and "Not Stated" to provide a more correct calculation;
- The modal split (by car driver) should include the reduced "Car Passenger" + "Car Driver" + "Van"; and
- To reflect the delivery of proposed active and sustainable transport measures included for in CMATS, additional 20% reduction in modal share (by car drive) was proposed to calculate future trip rates.

Table 5.1 presents the modal split for the Electoral Division of "Mahon B" Area, as obtained from the 2022 Census and the calculation of vehicle mode share adopted in this study.

TABLE 5.1 – MEAN OF TRAVEL IN "MAHON B" AREA FROM 2022 CENSUS AND CALCULATION OF VEHICLE MODE SHRE

Mean of Travel	Number			
	Work	School or College	Sub-total (Work, School or College)	%
On Foot	174	293	467	13%
Bicycle	54	23	77	2%
Bus, Minibus or Coach	196	193	389	11%
Train, DART or LUAS	5	2	7	0%
Motorcycle or Scooter	10	1	11	0%
Car Driver	1,162	29	1,191	34%
Car Passenger	147	591	738	21%
Van	92	0	92	3%
Other (incl. lorry)	8	5	13	0%
Work mainly at or from home	290	8	298	8%
Not stated	123	113	236	7%
Total	**2,261**	**1,258**	**3,519**	-
Modal Split (in Total) excluding the "Work mainly at or from home" and "Not stated":			**2,985**	-
Modal Split (By Car Drive) including the 20% reduction on "Car Passenger" + "Car Driver" + "Van":			**1,873**	-
Vehicle Mode Share:			**63%**	-
Adopted Vehicle Mode Share (with additional 20% reduction):			**50%**	-

Table 5.1 estimates that about 50% of people in this area would be using vehicles for the 2028 Opening Year and the 2043 Design Year scenarios. Therefore, this vehicle mode share of 50% has been applied to the people trip rates obtained from the TRICS database (8.25.6). **Table 5.2** details the estimated trip generation for the proposed residential development during the morning and evening peak hours being considered for this study.

TABLE 5.2 – ESTIMATION OF RESIDENITAL TRIP RATE BY UTILIZING THE TRICS DATABASE WITH MODE SHARE

Proposed Development	Time	Factor	TRICS People Trip Rate*		Adopted Vehicle Trip Rate (With Vehicle Mode Share of 50%)	
			Arrival	Departure	Arrival	Departure
Apartments	AM Peak	140 units	0.115 *(per unit)*	0.544 *(per unit)*	0.058 *(per unit)*	0.272 *(per unit)*
	PM Peak		0.413 *(per unit)*	0.193 *(per unit)*	0.207 *(per unit)*	0.097 *(per unit)*

*Note: * The highest arrival and departure trip rates between 07:00 and 10:00, and between 15:00 and 19:00 from the TRICS database were used in the morning and evening peak hours.*

5.1.2.2 Proposed Residential Phase 1 Development – Trip Generation (By Utilizing the Traffic Count Data)

With reference to Section 3.1 above, the vehicle turning movement survey at Junction 5 and Junction 6, which provide direct access to the nearby existing residential development with 135 units (with Planning Application reference no. 18/37820) as shown in **Figure 3.1**. To obtain an accurate and locally based assessment, the predicted trips to/from the proposed Phase 1 development have been calculated by examining the existing trip rates of the residential development adjacent to the proposed development. **Table 5.3** presents the trip rates for the proposed residential development by utilizing the traffic count data.

TABLE 5.3 – ESTIMATION OF RESIDENITAL TRIP RATE BY UTILIZING THE TRAFFIC COUNT DATA

No. of Units in nearby Residential Development	Time	No. of Trips as per Traffic Count		Calculated Vehicle Trip Rate	
		Arrival	Departure	Arrival Rate	Departure Rate
135 units	AM Peak	30	79	0.222 *(per unit)*	0.585 *(per unit)*
	PM Peak	46	28	0.341 *(per unit)*	0.207 *(per unit)*

5.1.2.3 Proposed Residential Phase 1 Development – Trip Generation (Comparison)

Table 5.4 presents the estimation of trip rates by utilizing the TRICS database with mode share and traffic count data. **Table 5.4** demonstrates that the total trip rates by utilizing the traffic count data in the morning and evening peak hours are higher than the total trip rates by utilizing the TRICS database with mode share. To provide a robust assessment, the total trip rates by utilizing the Traffic Count Data has been adopted in this study.

TABLE 5.4 – VEHICLE TRIP RATES COMPARISON

Methodology for Trip Rate Estimation	Vehicle Trip Rate					
	AM Peak			PM Peak		
	Arrival Rate	Departure Rate	Total	Arrival Rate	Departure Rate	Total
Utilizing the TRICS database with Mode Share	0.058 *(per unit)*	0.272 *(per unit)*	0.330 *(per unit)*	0.207 *(per unit)*	0.097 *(per unit)*	0.304 *(per unit)*
Utilizing the Traffic Count Data	**0.222** ***(per unit)***	**0.585** ***(per unit)***	**0.807** ***(per unit)***	**0.341** ***(per unit)***	**0.207** ***(per unit)***	**0.548** ***(per unit)***

Table 5.5 presents the trip generation for the proposed residential development (Phase 1 Development) by utilizing the traffic count data.

TABLE 5.5 – TRIP GENERATION FOR THE PROPOSED RESIDENTIAL PHASE 1 DEVELOPMENT BY UTILIZING THE TRAFFIC COUNT DATA

Proposed Development	Time	Factor	Adopted Vehicle Trip Rate		Adopted Hourly Trips	
			Arrival	Departure	Trips In	Trips Out
Apartments	AM Peak	140 units	0.222 *(per unit)*	0.585 *(per unit)*	31	82
	PM Peak		0.341 *(per unit)*	0.207 *(per unit)*	48	29

5.1.2.4 Proposed Non-Residential Phase 1 Development – Trip Generation

The expected trip generation for the proposed non-residential Phase 1 development (i.e. creche and café) was estimated utilising the vehicle trip rates from TRICS database (8.25.6) only, excluding Greater Dublin and Greater London. **Table 5.6** details the estimated trip generation for the proposed non-residential Phase 1 development (i.e. creche and café) during the morning and evening peak hours being considered for this study. The full TRICS output files for the proposed creche and café are also contained in **Appendix 2**. It is likely that the trip rates utilised for proposed creche and café land use are higher than what will occur once proposed development is complete. Much of the trips to these land uses will be generated internally as people attending these facilities will also live within the proposed development. Additionally, large proportion of "Pass-by" trips (i.e. a large proportion of creche of drop-offs or café trips will be by traffic already accounted for in the residential rates, on their way to work) and "Multi-Use" trips (i.e. visitors to the café may also visit the creche) will be expected for the proposed creche and café. In view of above reasons, it was assumed that 70% of trip generation for the proposed creche and café will be by-pass trips, and the remaining 30% of trip generation will travel between the proposed creche / café and area outside the proposed development. This 30% of trip

generation for the proposed creche and café will cause an impact on the surrounding road networks and has been considered for the assessment.

TABLE 5.6 – TRIP GENERATION FOR THE PROPOSED NON-RESIDENTIAL PHASE 1 DEVELOPMENT

Proposed Development	Time	Factor	TRICS Vehicle Trip Rate*		Hourly Trips		Adopted Hourly Trips due to Trip Reduction**	
			Arrival	Departure	Trips In	Trips Out	Trips In	Trips Out
Creche	AM Peak	25 pupils	0.224 *(per pupil)*	0.195 *(per pupil)*	6	5	2	2
	PM Peak		0.180 *(per pupil)*	0.228 *(per pupil)*	5	6	2	2
Café	AM Peak	65 m^2 GFA	6.532 *(per 100m^2)*	5.612 *(per 100m^2)*	4	4	1	1
	PM Peak		4.646 *(per 100m^2)*	4.968 *(per 100m^2)*	3	3	1	1

*Note: * The highest arrival and departure trip rates between 07:00 and 10:00, and between 15:00 and 19:00 from the TRICS database were used in the morning and evening peak hours.*
*** 70% trip reduction was applied for the proposed creche and cafe as by-pass trips.*

5.1.2.5 Total Trip Generation for the Proposed Phase 1 Development

Table 5.7 details the estimated total trip generation for the proposed Phase 1 development (including residential units, creche and café) during the morning and evening peak hours being considered for this study.

TABLE 5.7 – TOTAL VEHICLE TRIP GENERATION FOR THE PROPOSED PHASE 1 DEVELOPMENT

Proposed Development	Time	Factor	Adopted Vehicle Trip Rate		Hourly Trips		Adopted Hourly Trips due to Trip Reduction*	
			Arrival	Departure	Trips In	Trips Out	Trips In	Trips Out
Apartment	AM Peak	140 units	0.222 *(per unit)*	0.585 *(per unit)*	31	82	31	82
	PM Peak		0.341 *(per unit)*	0.207 *(per unit)*	48	29	48	29
Creche	AM Peak	25 pupils	0.224 *(per pupil)*	0.195 *(per pupil)*	6	5	2	2
	PM Peak		0.180 *(per pupil)*	0.228 *(per pupil)*	5	6	2	2
Café	AM Peak	65 m^2 GFA	6.532 *(per 100m^2)*	5.612 *(per 100m^2)*	4	4	1	1
	PM Peak		4.646 *(per 100m^2)*	4.968 *(per 100m^2)*	3	3	1	1
Total	**AM Peak**	-	-	-	-	-	**34**	**85**
	PM Peak	-	-	-	-	-	**51**	**32**

*Note: * 70% trip reduction was applied for the proposed creche and café as by-pass trips.*

Based on **Table 5.7**, expected trip generation for the proposed Phase 1 development was estimated and was revealed to be in total 34 trips inbound and 85 trips outbound in the morning peak hour, and 51 trips inbound and 32 trips outbound in the evening peak hour.

5.1.3 Permitted Developments – Trip Generation

At the time of writing, six other developments, including Hotel and Office Development (Hibernia Star Ltd.), SHD Development (Montip Horizon Ltd.), Office Development (O'Flynn Construction Co. Unlimited Company), "Bessboro" Development (Murphy Transport Ltd.), Office Development (City Gate Plaza Developments Ltd.) and Residential Development (Clyde Real Estate Cork Ltd.), in the vicinity of the proposed development have obtained planning permission. Those permitted developments shall be considered for this study in both the "without" and "with" development scenarios. The trip generation for the aforementioned developments is

summarized as below and the breakdown of trip generation for the aforementioned developments can be referred to **Appendix 3**.

5.1.3.1 Permitted Hotel and Office Development (Hibernia Star Ltd.)

With reference to the planning application reference no. 22/40809, trip generation for this development was revealed to be in total 125 trips inbound and 39 trips outbound in the morning peak hour, and 31 trips inbound and 113 trips outbound in the evening peak hour.

5.1.3.2 Permitted SHD Development (Montip Horizon Ltd.)

With reference to the planning application with ABP case reference no. ABP-301991-18 as amended by the reference nos. ABP-310378-21, 23/41994 and 23/42275), no estimated trip generation for the permitted SHD Development (Montip Horizon Ltd.) was found from this planning application. Thus, the people trip rates for the land use classified as "Flats Privately Owned" from TRICS database with applying the vehicle mode share of 50% (refer to Section 5.1.2.1) was used to estimate the trip generation for the residential development of this permitted development. Additionally, the expected trip generation for the non-residential development (i.e. retail and creche) of this permitted development was estimated utilising the vehicle trip rates from TRICS database (8.25.6) and applying the 70% trip reduction for both retail and creche as by-pass trips (refer to Section 5.1.2.4). **Table 5.8** and **Table 5.9** below detail the estimated trip generation for the residential development and non-residential development of this permitted SHD Development (Montip Horizon Ltd.) during the morning and evening peak hours being considered for this study.

TABLE 5.8 – TRIP GENERATION FOR PERMITTED SHD DEVELOPMENT (MONTIP HORIZON LTD.) – RESIDENTIAL DEVELOPMENT

Type	Time	Factor	TRICS People Trip Rate*		Adopted TRICS Vehicle Trip Rate (With Vehicle Mode Share of 50%)		Adopted Hourly Trips	
			Arrival	Departure	Arrival	Departure	Trips In	Trips Out
Apartment	AM Peak	440 units	0.115 *(per unit)*	0.554 *(per unit)*	0.058 *(per unit)*	0.272 *(per unit)*	26	120
	PM Peak		0.413 *(per unit)*	0.193 *(per unit)*	0.207 *(per unit)*	0.097 *(per unit)*	91	43

*Note: * The highest trip rates between 07:00 and 10:00 and between 15:00 and 19:00 from TRICS database were adopted for estimation of the AM and PM peak trip rates for the residential development of this permitted development respectively.*

TABLE 5.9 – TRIP GENERATION FOR PERMITTED SHD DEVELOPMENT (MONTIP HORIZON LTD.) – NON-RESIDENTIAL DEVELOPMENT

Type	Time	Factor	TRICS Vehicle Trip Rate*		Hourly Trips		Adopted Hourly Trips due to Trip Reduction**	
			Arrival	Departure	Trips In	Trips Out	Trips In	Trips Out
Retail	AM Peak	861m² GFA	4.725 *(per 100 m²)*	4.301 *(per 100 m²)*	41	37	12	11
	PM Peak		6.365 *(per 100 m²)*	6.909 *(per 100 m²)*	55	59	17	18
Creche	AM Peak	392m² GFA	3.023 *(per 100 m²)*	2.628 *(per 100 m²)*	12	10	4	3
	PM Peak		2.423 *(per 100 m²)*	3.069 *(per 100 m²)*	9	12	3	4
Sub-Total	**AM Peak**	-	-	-	-	-	**16**	**14**
	PM Peak	-	-	-	-	-	**20**	**22**

*Note: * The highest trip rates between 07:00 and 10:00 and between 15:00 and 19:00 from TRICS database were adopted for estimation of the AM and PM peak trip rates for the non-residential development of this permitted development respectively.*
*** 70% trip reduction was applied for the retail and creche as by-pass trips.*

Table 5.10 details the estimated total trip generation for this permitted SHD Development (including apartment units, retail and creche) during the morning and evening peak hours being considered for this study.

TABLE 5.10 – TOTAL VEHICLE TRIP GENERATION FOR PERMITTED DEVELOPMENT (MONTIP HORIZON LTD.)

Type	Time	Factor	Adopted Vehicle Trip Rate		Hourly Trips		Adopted Hourly Trips*	
			Arrival	Departure	Trips In	Trips Out	Trips In	Trips Out
Apartment	AM Peak	440 units	0.058 *(per unit)*	0.272 *(per unit)*	26	120	26	120
	PM Peak		0.207 *(per unit)*	0.097 *(per unit)*	91	43	91	43
Retail	AM Peak	861m² GFA	4.725 *(per 100 m²)*	4.301 *(per 100 m²)*	41	37	12	11
	PM Peak		6.365 *(per 100 m²)*	6.909 *(per 100 m²)*	55	59	17	18
Creche	AM Peak	392m² GFA	3.023 *(per 100 m²)*	2.628 *(per 100 m²)*	12	10	4	3
	PM Peak		2.423 *(per 100 m²)*	3.069 *(per 100 m²)*	9	12	3	4
Total	**AM Peak**	-	-	-	-	-	**42**	**134**
	PM Peak	-	-	-	-	-	**111**	**65**

*Note: * 70% trip reduction was applied for the retail and creche as by-pass trips.*

5.1.3.3 Permitted Office Development (O'Flynn Construction Co. Unlimited Company)

With reference to the planning application reference no. 19/38875, trip generation for this development was revealed to be in total 88 trips inbound and 7 trips outbound in the morning peak hour, and 9 trips inbound and 82 trips outbound in the evening peak hour.

5.1.3.4 Permitted "Bessboro" Development (Murphy Transport Ltd.)

With reference to the planning application reference no. 17/37349, trip generation for this development was revealed to be in total 5 trips inbound and 15 trips outbound in the morning peak hour, and 15 trips inbound and 9 trips outbound in the evening peak hour.

5.1.3.5 Permitted Office Development (City Gate Plaza Developments Ltd.)

With reference to the planning application reference no. 18/38036 as amended by the reference nos. 24/42822, trip generation for this development was revealed to be in total 176 trips inbound and 29 trips outbound in the morning peak hour, and 37 trips inbound and 135 trips outbound in the evening peak hour.

5.1.3.6 Permitted Residential Development (Clyde Real Estate Cork Ltd.)

With reference to the planning application with reference no. 21/40196 as amended by the reference nos. ABP-314310-22 and 24/43351, trip generation for this development was revealed to be in total 21 trips inbound and 35 trips outbound in the morning peak hour, and 47 trips inbound and 33 trips outbound in the evening peak hour.

5.2 Modal Choice

In order to produce a conservative and robust assessment of the traffic impact of the proposed development, this study assumes that all of the trips generated by the development will be by private car.

5.3 Trip Distribution

5.3.1 Permitted Developments – Trip Distribution

To provide a worst-case scenario, it was assumed that the permitted developments, including Hotel and Office Development (Hibernia Star Ltd.), SHD Development (Montip Horizon Ltd.), Office Development (O'Flynn Construction Co. Unlimited Company), "Bessboro" Development (Murphy Transport Ltd.), Office Development (City Gate Plaza Developments Ltd.) and Residential Development (Clyde Real Estate Cork Ltd.), will be completed prior to completion of the proposed Phase 1 development. Therefore, those permitted developments shall be considered for this study in both the "without" and "with" development scenarios.

The trip distribution for those permitted developments to the relevant junctions will be extracted from their respective TTA report, if any. Otherwise, existing traffic patterns (i.e. development generated flows will be split through the junction proportionally to existing flows) will be adopted for traffic distribution of those permitted developments. **Appendix 4** illustrates the trip generation of those permitted developments.

5.3.2 Proposed Phase 1 Development – Trip Distribution

The future development traffic distribution is likely to mirror existing traffic patterns (i.e. development generated flows will be split through the junction proportionally to existing flows). **Appendix 5** and **Appendix 6** illustrate the trip distribution and trip generation respectively, arriving and departing the proposed development during the morning and evening peak periods.

5.3.3 Future Traffic Flows for the "Without" and "With" Development Scenarios

The projected 2028 and 2043 background traffic flows have been calculated by factoring up the 2025 recorded traffic flows in accordance with the TII Publications Project Appraisal Guidelines for National Roads document "Unit 5.3 Travel Demand Projections, Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates" by using low sensitivity traffic growth rates. **Table 5.11** illustrates the low sensitivity growth rates adopted in this study.

TABLE 5.11 – LOW SENSITVITY GROWTH RATES

Metropolitan Area	Vehicle Category	Low Sensitivity Growth Rates		
		2016-2030	2030-2040	2040-2050
Cork	Light Vehicle (LV)	1.0153	1.0072	1.0065
	Heavy Vehicle (HV)	1.0279	1.0128	1.0164

The 2028 Opening Year and 2043 Design Year traffic flows are equal to the sum of their respective year background traffic flows (as derived above) and the trips generated from those permitted developments to create the "without" development scenario. Additional traffic flows due to the proposed development are then applied to these year flows to create the "with" development scenario. **Table 5.12** presents the traffic flows included for each scenario.

TABLE 5.12 – SCENARIOS MODELLED

Scenario	Traffic Flows Included		
	Background Traffic (+low growth)	6 Permitted Developments (as mentioned in Section 1.1.1 above)	Proposed Phase 1 Development
2025 Baseline Year	✓	X	X
2028 Opening Year (Without Development)	✓	✓	X
2028 Opening Year (With Phase 1 Development)	✓	✓	✓
2043 Design Year (Without Development)	✓	✓	X
2043 Design Year (With Phase 1 Development)	✓	✓	✓

5.4 Trip Generation (Phase 1 Development) as a Percentage of Existing Traffic

In order to assess the future traffic impact of the proposed Phase 1 development the NRA Traffic and Transport Assessment Guidelines were assessed to determine the threshold requirements for a traffic impact assessment.

Expected trip generation for the proposed Phase 1 development was estimated as shown in Section 5.1.2 and was revealed to be in total 34 trips inbound and 85 trips outbound in the morning peak hour, and 51 trips inbound and 32 trips outbound in the evening peak hour. An exercise was carried out to quantify the expected Phase 1 development trip generation as a proportion of existing traffic flows on the surrounding road network to determine if a detailed traffic impact assessment is required for all of the junctions included within the scoping study.

It is anticipated that the future background traffic flows shall be factored up in accordance with "Unit 5.3 Travel Demand Projections, Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates" under low sensitivity growth rates. In view of the above, the existing traffic flows will be used instead of future traffic flows in order to provide a robust analysis and a "worst-case" scenario. The result of this trip distribution and assignment exercise is presented in **Table 5.13** and **Table 5.14**.

TABLE 5.13 – PROPOSED PHASE 1 DEVELOPMENT MORNING PEAK HOUR TRIP GENERATION AS A PERCENTAGE OF EXISTING ROAD NETWORK TRAFFIC FLOW

Junction	Junction AM Peak Traffic	Proposed Phase 1 Development Generated Traffic	Percentage Change
Junction 1 – Bessboro Road / Bessboro Access Road Roundabout	408	119	**29.1%**
Junction 2 – Skehard Road / Bessboro Road	1,524	108	**7.1%**
Junction 3 – Church Road / Skehard Road	1,585	62	3.9%
Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road	1,771	49	2.8%

As demonstrated by **Table 5.13**, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% for Junction 3 and Junction 4 in the morning peak hour.

TABLE 5.14 – PROPOSED PHASE 1 DEVELOPMENT EVENING PEAK HOUR TRIP GENERATION AS A PERCENTAGE OF EXISTING ROAD NETWORK TRAFFIC FLOW

Junction	Junction PM Peak Traffic	Proposed Phase 1 Development Generated Traffic	Percentage Change
Junction 1 – Bessboro Road / Bessboro Access Road Roundabout	331	83	**25.1%**
Junction 2 – Skehard Road / Bessboro Road	1,547	78	**5.0%**
Junction 3 – Church Road / Skehard Road	1,667	39	2.3%
Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road	1,992	39	2.0%

As demonstrated by **Table 5.14**, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% for Junction 3 and Junction 4 in the evening peak hour.

In view of the above robust analysis, for Junction 3 and Junction 4 the ratio of estimated trips associated with the proposed Phase 1 development represent a small proportion of existing traffic flows on the surrounding road network and less than the thresholds for traffic impact assessment as stated in the Table 2.1 of TII Traffic and Transport Assessment Guidelines (i.e. 10% of the traffic flow on the existing road network and 5% in sensitive environments or where congestion exists) during the morning and evening peak hours.

As a result of this negligible increase in traffic volumes on the surrounding road network, it is not required to undertake any traffic capacity assessments for Junction 3 and Junction 4. It is reasonable to assume that the number of net trips generated by the proposed development will remain close to a constant number in future years while background traffic levels will show a steady increase. This will result in the traffic impact of the proposed development decreasing even further in future years in percentage terms.

However, it is acknowledged that the estimated additional flows at Junction 1 and Junction 2 are greater than 5% of the traffic flow on the existing road network where congestion exists or the location is sensitive. Therefore, capacity assessments on Junction 1 and Junction 2 are required. Notwithstanding the minimal % increase in traffic at Junctions 3 and 4, and in order to have a better understanding of this minimal traffic impact on Junction 3 and Junction 4 due to the proposed Phase 1 development, capacity assessments have also been carried out on Junction 3 and Junction 4. As a result, analyses of Junction 1 to Junction 4 were undertaken by using the Transport Research Laboratory's (TRL) analysis software: Assessment of Roundabout Capacity and Delay (ARCADY) for roundabout junction and JCT Consultancy Limited analysis software: LinSig3 for signalised junctions.

Junction 1 to Junction 4 were modelled for the 2025 Baseline Year, 2028 Opening Year and 2043 Design Year (Opening Year plus 15 years) in the morning and evening peak hours.

5.5 Network Traffic Flows – Phase 1 Development

Refer to **Figure 5.1** to **Figure 5.4** inclusive for the estimated future traffic flows in the morning and evening peak hours for Junction 1 to Junction 4.

5.5.1 2028 Opening Year (Phase 1 Development) Traffic Flows

Figure 5.1 and **Figure 5.2**, demonstrate the 2028 Opening Year (Phase 1 Development) traffic flows for Junction 1 to Junction 4 in the morning and evening peak hours for the "without" development and "with" Phase 1 development scenarios.

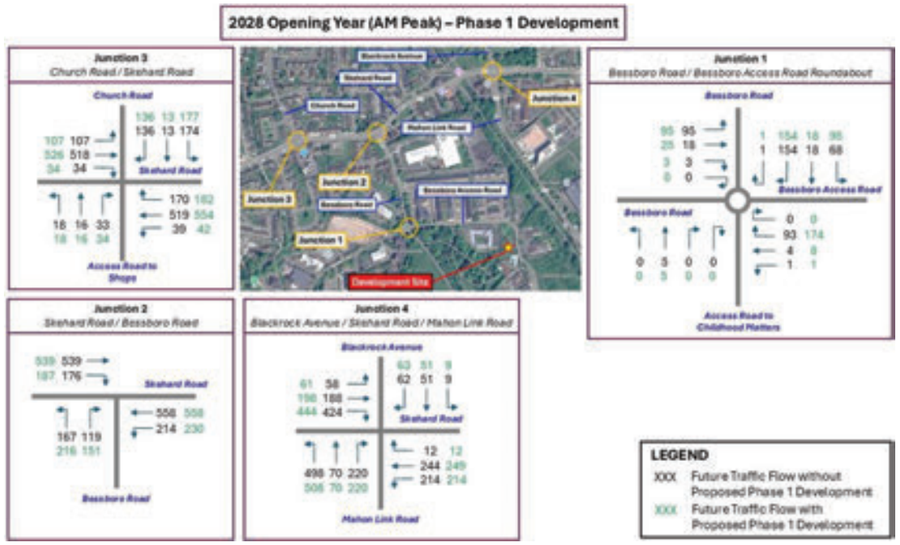

FIGURE 5.1 – 2028 OPENING YEAR (PHASE 1 DEVELOPMENT) TRAFFIC FLOWS (PCU) IN THE MORNING PEAK HOUR (WEEKDAY)

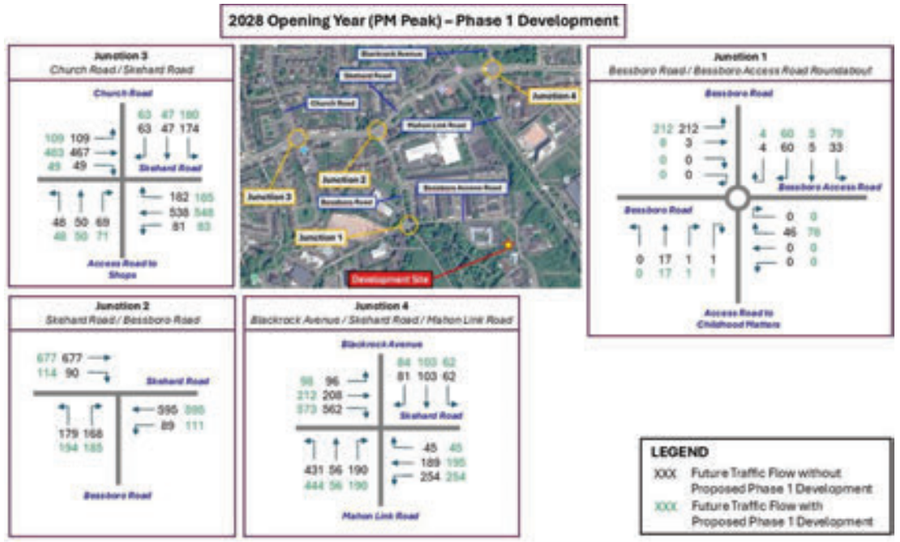

FIGURE 5.2 – 2028 OPENING YEAR (PHASE 1 DEVELOPMENT) TRAFFIC FLOWS (PCU) IN THE EVENING PEAK HOUR (WEEKDAY)

5.5.2 2043 Design Year (Phase 1 Development) Traffic Flows

Figure 5.3 and **Figure 5.4**, demonstrate the 2043 Design Year (Phase 1 Development) traffic flows for Junction 1 to Junction 4 in the morning and evening peak hours for the "without" development and "with" Phase 1 development scenarios.

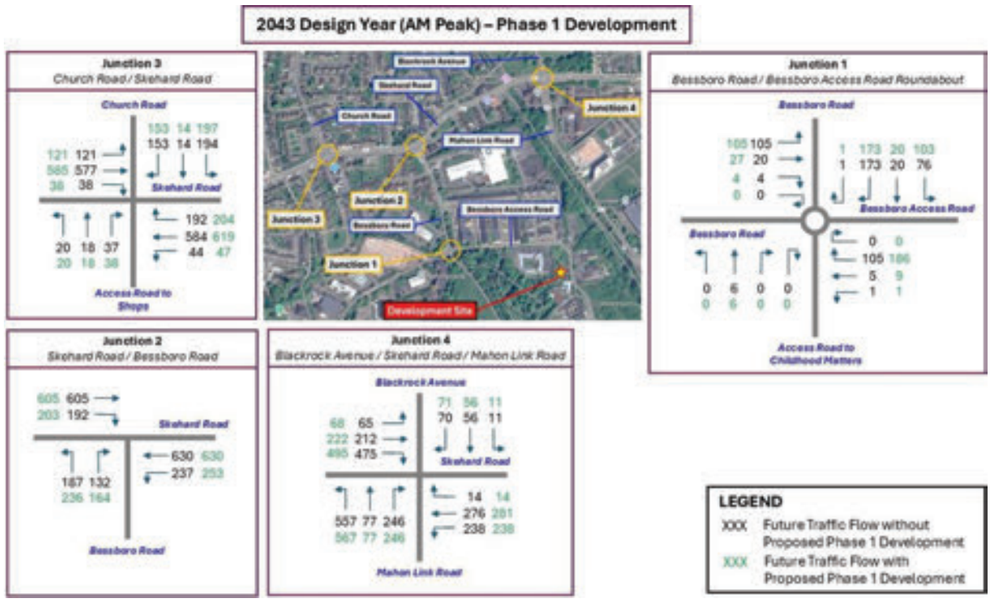

FIGURE 5.3 – 2043 DESIGN YEAR (PHASE 1 DEVELOPMENT) TRAFFIC FLOWS (PCU) IN THE MORNING PEAK HOUR (WEEKDAY)

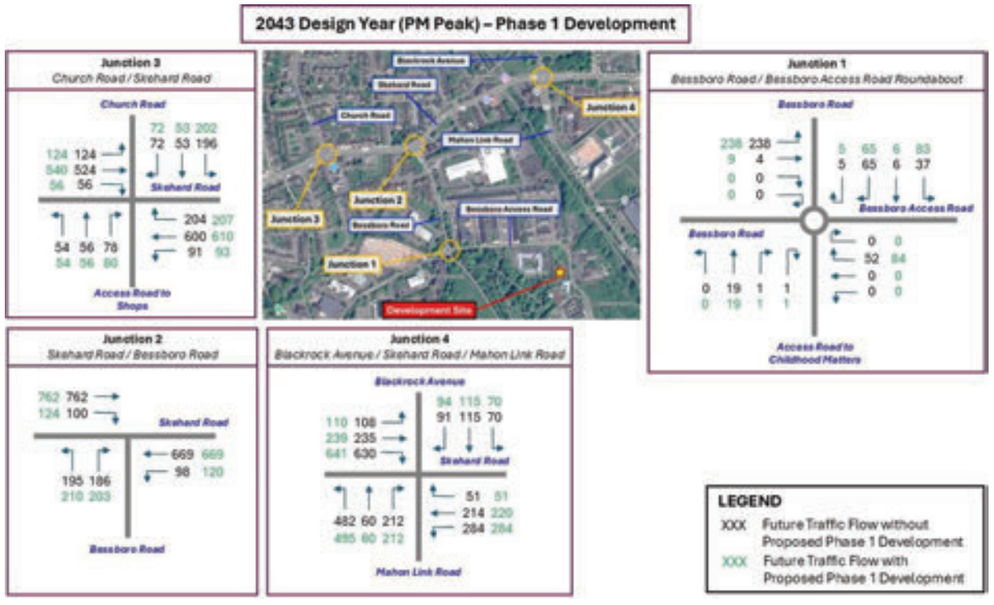

FIGURE 5.4 – 2043 DESIGN YEAR (PHASE 1 DEVELOPMENT) TRAFFIC FLOWS (PCU) IN THE EVENING PEAK HOUR (WEEKDAY)

5.6 Trip Generation – Construction Stage

The construction phase of the development is expected to generate lower vehicle movements than the operational phase. However, a greater number of Heavy Goods Vehicles (HGVs) are expected during the construction phase. The Applicants have extensive experience of construction and construction will be carried out in accordance with the Construction and Environmental Management Plan (CEMP) developed for the site.

The proposed development will initially involve some earthworks, the site is relatively level thus there will be limited cut and fill balance required. All parking associated with site works will be provided within the curtilage of the site as outlined in the CEMP.

To reach the operational stage of the new development, the following works will be required to be carried out:

- Provision of a temporary construction access, a safe and secure site compound and the erection of temporary boundary fencing;
- Trenching for underground services including foul sewer, surface water drains, water mains, gas, telecommunications, electricity and lighting;
- Connection of underground services to existing underground services where available;
- Construction of apartments, creche and café throughout the site;
- Construction of the new pedestrian/cycle bridge over the Passage West Greenway with associated connections to the Greenway;
- Construction of the access roads, footpaths, and paved areas in the car parking areas; and
- Erection of permanent boundary fencing, landscaping, signage, and lighting.

Each of the activities outlined above will generate a level of vehicle movement to and from the site as well as internally within the subject site. The developer will concentrate on sections of the site at a time to limit HGV movements on the road network.

The typical plant used on site, including but not limit to, will be as follows:

- Excavator (with a rock breaker if required);
- JCB site master;
- (40T) dumper trucks;
- (<6T) dumper trucks;
- 20T roller;
- Small roller or/and heavy compaction plate;
- Road Sprayer/Scraper/Sweeper;
- Cement Mixer; and
- Water Pump.

The start and finishing times are based on the winter period as this is more concentrated than during the summer period, between 7.30a.m. and 6.00p.m., five days per week, with some working on Saturday mornings, subject to any conditions set down by the Local Authority. It is expected that most workers will be on-site prior to the AM peak hour of 08:00-09:00. On average we would expect approximately 100 staff on site, this will vary over the life of the construction phase.

The construction workers are expected to arrive to the site mainly by private vehicle or there may be opportunities to car share. The level of traffic generation is expected to be less than the operational stage. Therefore, the analysis in the following sections focuses on the operational stage.

6 TRAFFIC IMPACT – PHASE 1 DEVELOPMENT

6.1 Background

As mentioned in Section 5.4, a capacity assessment on Junction 1 and Junction 2 are required due to the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows on Junction 1 and Junction 2 greater than 5%. Notwithstanding the minimal % increase in traffic at Junctions 3 and 4, and in order to have a better understanding of this minimal traffic impact on Junction 3 and Junction 4 due to the proposed Phase 1 development, capacity assessments have also been carried out on Junction 3 and Junction 4. As a result, analyses of Junction 1 to Junction 4 were undertaken by using the TRL's ARCADY for roundabout junction and LinSig3 for signalised junctions. These programs determine the capacity of the junctions based on a variety of geometric parameters and assess the extent to which the flow of traffic through that junction approaches capacity. The traffic capacity assessments have been carried out for the following junctions:

- Junction 1 – Bessboro Road / Bessboro Access Road Roundabout;
- Junction 2 – Skehard Road / Bessboro Road;
- Junction 3 – Church Road / Skehard Road; and
- Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road.

The criteria utilised for the assessment of roundabout junction capacity is Ratio of Flow to Capacity (RFC) while the criteria utilised for the assessment of signalised junction capacity is Degree of Saturation (DOS). The RFC and DOS provide a basis for judging the acceptability of junction designs. Typically, an RFC of less than 0.85 normal design threshold for a roundabout junction and a DOS of less than 0.9 normal design threshold for a signalised junction are considered to indicate satisfactory performance (i.e. operating in an efficient and stable condition). A RFC of between 0.85 and 1 for roundabout junction and a DOS of between 0.9 and 1 for signalised junction represent variable operation, and may be said to be operating adequately, if the queue and delay are deemed acceptable. RFC and DOS values in excess of 1 represent an oversaturated condition.

The junctions were modelled for the 2025 Baseline Year, 2028 Opening Year and 2043 Design Year Horizon for the morning and evening peak hours using the flow diagrams shown in **Figure 3.2**, **Figure 3.3** and **Figure 5.1** to **Figure 5.4** in the previous sections herein.

To demonstrate the direct traffic impact associated with the proposed Phase 1 development, the traffic modelling exercise was carried out for the "without" development and "with" Phase 1 development scenarios.

6.2 Junction Capacity Assessment for 2025 Baseline Year

A traffic capacity assessment of the Junction 1 to Junction 4 were undertaken utilising the surveyed results shown in **Figure 3.2** and **Figure 3.3** above, and the TRL analysis software: ARCADY for roundabout junction and LinSig3 for signalised junction. A summary of the results of the analysis for the 2025 Baseline Year in the morning and evening peak hours is shown in **Table 6.1** to **Table 6.4.**

Junction 1 – Bessboro Road / Bessboro Access Road Roundabout

TABLE 6.1 – 2025 BASELINE YEAR JUNCTION CAPACITY ANALYSIS FOR JUNCTION 1

Approach Arm	Max. RFC		Max. Queue (PCU)		Average Delay (Seconds)	
	AM	PM	AM	PM	AM	PM
Bessboro Road North	0.30	0.10	1	0	7	5
Bessboro Access Road	0.10	0.04	0	0	4	4
Access Road to Childhood Matters	0.01	0.03	0	0	7	6
Bessboro Road West	0.14	0.27	0	0	6	7

The normal design threshold for the RFC is 0.58 for a roundabout junction. The results shown in **Table 6.1** demonstrate that Junction 1 is operating within the normal design threshold in the morning peak hour in the 2025 baseline year.

Junction 2 – Skehard Road / Bessboro Road

TABLE 6.2 – 2025 BASELINE YEAR JUNCTION CAPACITY ANALYSIS FOR JUNCTION 2

Approach Arm	Max. DOS		Mean Max. Queue (PCU)	
	AM	PM	AM	PM
Skehard Road East	0.62	0.58	14	13
Bessboro Road	0.49	0.47	5	4
Skehard Road West	0.48	0.61	9	15

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.2** demonstrate that Junction 2 is operating within the normal design threshold in both the morning and evening peak hours in the 2025 baseline year.

Junction 3 – Church Road / Skehard Road

TABLE 6.3 – 2025 BASELINE YEAR JUNCTION CAPACITY ANALYSIS FOR JUNCTION 3

Approach Arm	Max. DOS		Mean Max. Queue (PCU)	
	AM	PM	AM	PM
Church Road	0.81	0.79	9	9
Skehard Road East	0.79	0.72	15	16
Access Road to Shops	0.31	0.79	1	5
Skehard Road West	0.76	0.83	15	16

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.3** demonstrate that Junction 3 is operating within the normal design threshold in both the morning and evening peak hours in the 2025 baseline year.

Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road

TABLE 6.4 – 2025 BASELINE YEAR JUNCTION CAPACITY ANALYSIS FOR JUNCTION 4

Approach Arm	Max. DOS		Mean Max. Queue (PCU)	
	AM	PM	AM	PM
Blackrock Avenue	0.51	**1.17**	2	24
Skehard Road East	**1.12**	0.89	26	9
Mahon Link Road	**1.05**	**1.07**	43	35
Skehard Road West	**1.04**	**1.16**	35	85

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.4** demonstrate that Junction 4 is operating over the normal design threshold in both the morning and evening peak hours in the 2025 baseline year, resulting in queues and delays for motorists. Once a junction is nearing or at capacity, any slight increase, whether it is background traffic growth or a new development, will have a noticeable increase in queues/ delays.

6.3 Operational Phase 2028 Opening Year – Junction Capacity (Phase 1 Development)

A traffic capacity assessment of the Junction 1 to Junction 4 were undertaken utilising the future traffic flows as shown in **Figure 5.1** and **Figure 5.2**, and the TRL analysis software: ARCADY for roundabout junction and LinSig3 for signalised junction. A summary of the results of the analysis for the 2028 Opening Year, "without" development and "with" Phase 1 development scenarios, in the morning and evening peak hours is shown in **Table 6.5** to **Table 6.8.**

Junction 1 – Bessboro Road / Bessboro Access Road Roundabout

TABLE 6.5 – 2028 OPENING YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 1

Approach Arm	Scenario	Max. RFC		Max. Queue (PCU)		Average Delay (Seconds)	
		AM	PM	AM	PM	AM	PM
Bessboro Road North	Without Development	0.33	0.14	1	0	7	6
	With Phase 1 Development	0.37	0.20	1	0	8	6
Bessboro Access Road	Without Development	0.11	0.05	0	0	5	4
	With Phase 1 Development	0.20	0.08	0	0	5	4
Access Road to Childhood Matters	Without Development	0.01	0.03	0	0	7	6
	With Phase 1 Development	0.01	0.03	0	0	8	6
Bessboro Road West	Without Development	0.17	0.31	0	1	6	7
	With Phase 1 Development	0.19	0.32	0	1	7	8

The normal design threshold for the RFC is 0.85 for a roundabout junction. The results shown in **Table 6.5** demonstrates that Junction 1 will operate within the normal design threshold in both the morning and evening peak hours in 2028 for both the "without" development and "with" Phase 1 development scenarios.

Junction 2 – Skehard Road / Bessboro Road

TABLE 6.6 – 2028 OPENING YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 2

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Skehard Road East	Without Development	0.70	0.65	17	16
	With Phase 1 Development	0.72	0.68	18	17
Bessboro Road	Without Development	0.58	0.63	6	6
	With Phase 1 Development	0.73	0.70	8	7
Skehard Road West	Without Development	0.56	0.67	11	17
	With Phase 1 Development	0.57	0.69	11	18

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.6** demonstrate that Junction 2 will operate within the normal design threshold in both the morning and evening peak hours in 2028 for both the "without" development and "with" Phase 1 development scenarios.

Junction 3 – Church Road / Skehard Road

TABLE 6.7 – 2028 OPENING YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 3

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Church Road	Without Development	**0.91**	0.86	13	11
	With Phase 1 Development	**0.92**	0.88	13	11
Skehard Road East	Without Development	0.85	0.85	17	21
	With Phase 1 Development	**0.91**	0.87	20	22
Access Road to Shop	Without Development	0.33	0.82	1	5
	With Phase 1 Development	0.33	0.82	1	5
Skehard Road West	Without Development	**0.92**	0.88	22	19
	With Phase 1 Development	**0.93**	0.90	23	21

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.7** demonstrate that Junction 3 will operate within the normal design threshold in the evening peak hour in 2028 for both the "without" development and "with" Phase 1 development scenarios. In the morning peak hour, this junction will slightly exceed the normal design threshold (but still less than its theoretical capacity of 1.0) in 2028 for both the "without" development and "with" Phase 1 development scenarios. Once a junction is at capacity any slight increase, whether it is background traffic growth or a new residential development, will have a noticeable increase in queues/delays.

It should be noted that the above results present a "worst-case" situation because the assessment has included on-demand stages (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian and vehicular movement phasing.

Additionally, with reference to Section 5.4 above, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% (i.e. 3.9% in the morning peak hour and 2.3% in the evening peak hour) for this junction in both the morning and evening peak hours. Moreover, it is clear that the impact on this junction will be mainly due to regular background traffic growth and not the proposed Phase 1 development per se. Therefore, traffic from the proposed Phase 1 development will not cause a significant impact on this junction.

Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road

TABLE 6.8 – 2028 OPENING YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 4

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Blackrock Avenue	Without Development	0.56	**1.37**	3	43
	With Phase 1 Development	0.56	**1.37**	3	44
Skehard Road East	Without Development	**1.18**	**0.94**	33	11
	With Phase 1 Development	**1.21**	**0.97**	35	13
Mahon Link Road	Without Development	**1.26**	**1.34**	114	114
	With Phase 1 Development	**1.27**	**1.34**	117	117
Skehard Road West	Without Development	**1.19**	**1.32**	81	142
	With Phase 1 Development	**1.25**	**1.35**	99	151

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.8** demonstrate that Junction 4 will exceed the normal design threshold in both the morning and evening peak hours in 2028 for both the "without" development and "with" Phase 1 development scenarios. Once a junction is at capacity any slight increase, whether it is background traffic growth or a new residential development, will have a noticeable increase in queues/delays.

It should be noted that the above results present a "worst-case" situation because the assessment has included on-demand stages (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian and vehicular movement phasing.

Additionally, with reference to Section 5.4 above, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% (i.e. 2.8% in the morning peak hour and 2.0% in the evening peak hour) for this junction in both the morning and evening peak hours. Additionally, it is clear that the impact on this junction will be mainly due to regular background traffic growth and not the proposed Phase 1 development per se. Therefore, traffic from the proposed Phase 1 development will not cause a significant impact on this junction.

6.4 Operational Phase 2043 Design Year – Junction Capacity (Phase 1 Development)

A traffic capacity assessment of the Junction 1 to Junction 4 were undertaken utilising the future traffic flows as shown in **Figure 5.3** and **Figure 5.4**, and the TRL analysis software: ARCADY for roundabout junction and LinSig3 for signalised junction. A summary of the results of the analysis for the 2043 Design Year, "without" development and "with" Phase 1 development scenarios, in the morning and evening peak hours is shown in **Table 6.9** to **Table 6.12.**

Junction 1 – Bessboro Road / Bessboro Access Road Roundabout

TABLE 6.9 – 2043 DESIGN YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 1

Approach Arm	Scenario	Max. RFC		Max. Queue (PCU)		Average Delay (Seconds)	
		AM	PM	AM	PM	AM	PM
Bessboro Road North	Without Development	0.37	0.15	1	0	8	6
	With Phase 1 Development	0.41	0.22	1	0	8	6
Bessboro Access Road	Without Development	0.13	0.05	0	0	5	4
	With Phase 1 Development	0.22	0.09	0	0	5	4
Access Road to Childhood Matters	Without Development	0.01	0.04	0	0	7	6
	With Phase 1 Development	0.01	0.04	0	0	8	6
Bessboro Road West	Without Development	0.19	0.35	0	1	7	8
	With Phase 1 Development	0.22	0.36	0	1	7	8

The normal design threshold for the RFC is 0.85 for a roundabout junction. The results shown in **Table 6.9** demonstrates that Junction 1 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" development and "with" Phase 1 development scenarios.

Junction 2 – Skehard Road / Bessboro Road

TABLE 6.10 – 2043 DESIGN YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 2

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Skehard Road East	Without Development	0.79	0.73	22	20
	With Phase 1 Development	0.80	0.75	23	21
Bessboro Road	Without Development	0.64	0.70	6	7
	With Phase 1 Development	0.80	0.76	10	8
Skehard Road West	Without Development	0.69	0.75	14	21
	With Phase 1 Development	0.76	0.77	15	23

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.10** demonstrate that Junction 2 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" development and "with" Phase 1 development scenarios.

Junction 3 – Church Road / Skehard Road

TABLE 6.11 – 2043 DESIGN YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 3

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Church Road	Without Development	**1.02**	**0.97**	22	16
	With Phase 1 Development	**1.03**	**0.99**	23	18
Skehard Road East	Without Development	**0.96**	**0.95**	22	28
	With Phase 1 Development	**1.02**	**0.97**	27	29
Access Road to Shop	Without Development	0.37	**0.93**	2	8
	With Phase 1 Development	0.37	**0.93**	2	8
Skehard Road West	Without Development	**1.02**	**0.99**	37	29
	With Phase 1 Development	**1.03**	**1.01**	40	34

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.11** demonstrate that Junction 3 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" development and "with" Phase 1 development scenarios. Once a junction is at capacity any slight increase, whether it is background traffic growth or a new residential development, will have a noticeable increase in queues/delays.

It should be noted that the above results present a "worst-case" situation because the assessment has included on-demand stages (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian and vehicular movement phasing.

Additionally, with reference to Section 5.4 above, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% (i.e. 3.9% in the morning peak hour and 2.3% in the evening peak hour) for this junction in both the morning and evening peak hours. Moreover, it is clear that the impact on this junction will be mainly due to regular background traffic growth and not the proposed Phase 1 development per se. Therefore, traffic from the proposed Phase 1 development will not cause a significant impact on this junction.

It should be also noted that the provision of future cycling network as mentioned in Section 2.4 and provision of public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) to encourage increased modal shift away from the use of private car will result in a decrease in traffic at the existing junctions in the vicinity of the proposed development. After completion of these improvements, the performance of this junction could be further improved.

Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road

TABLE 6.12 – 2043 DESIGN YEAR (PHASE 1 DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 4

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Blackrock Avenue	Without Development	0.63	**1.53**	3	61
	With Phase 1 Development	0.64	**1.53**	3	61
Skehard Road East	Without Development	**1.34**	**1.07**	51	22
	With Phase 1 Development	**1.36**	**1.10**	54	25
Mahon Link Road	Without Development	**1.41**	**1.48**	165	155
	With Phase 1 Development	**1.41**	**1.49**	168	159
Skehard Road West	Without Development	**1.34**	**1.48**	126	202
	With Phase 1 Development	**1.39**	**1.51**	144	211

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 6.12** demonstrate that Junction 4 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" development and "with" Phase 1 development scenarios. Once a junction is at capacity any slight increase, whether it is background traffic growth or a new residential development, will have a noticeable increase in queues/delays.

It should be noted that the above results present a "worst-case" situation because the assessment has included on-demand stages (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian and vehicular movement phasing.

Additionally, with reference to Section 5.4 above, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% (i.e. 2.8% in the morning peak hour and 2.0% in the evening peak hour) for this junction in both the morning and evening peak hours. Additionally, it is clear that the impact on this junction will be mainly due to regular background traffic growth and not the proposed Phase 1 development per se. Therefore, traffic from the proposed Phase 1 development will not cause a significant impact on this junction.

It should be also noted that the provision of future cycling network as mentioned in Section 2.4 and provision of public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) to encourage increased modal shift away from the use of private car will result in a decrease in traffic at the existing junctions in the vicinity of the proposed development. After completion of these improvements, the performance of this junction could be further improved.

6.5 Traffic Impacts During Construction

Normal working hours will typically be between 7.30 am and 6.00 pm, Monday to Friday, 7.30 am and 12.00 noon on Saturdays. It is expected that most workers will be on-site prior to the AM peak hour of 08:00-09:00. It should be also noted that generally, construction traffic generated during the construction phase tends to be outside of AM and PM peak hours. Therefore, it is considered that construction traffic generated during the construction phase would not cause a significant traffic impact on the surrounding roads.

7 TRIP GENERATION & ASSIGNMENT – ENTIRE DEVELOPMENT

7.1 Introduction

In order to produce a robust assessment, this section will analyse the traffic impact of the entire development (when complete, Phase 1 to Phase 3 developments) comprising of c. 620 residential units. The accesses to the Phase 1 and Phase 2 developments will be gained from the Bessboro Access Road while the access to the Phase 3 development will be gained from the Access Road to Childhood Matters as shown in **Figure 1.2**. It is estimated that the entire development will be completed by the 15-year design horizon of 2043 used in Section 6. Therefore, this will be used as the comparison year for both the "without" and "with" the entire development scenarios.

7.2 Trip Generation - Entire Development

With reference to Section 5.1.2, expected trip generation for the entire residential development was estimated utilising the traffic count data. With reference to Section 5.1.2.4, expected trip generation for the entire non-residential development (i.e. creche and café) were estimated utilising the TRICS database and applying the 70% trip reduction factor due to the "Pass-by" trips.

Table 7.1 details the estimated total trip generation for the entire development (including residential units and creche) during the morning and evening peak hours being considered for this study.

TABLE 7.1 – TOTAL VEHICLE TRIP GENERATION FOR THE ENTIRE DEVELOPMENT

Type	Time	Factor	Adopted Vehicle Trip Rate		Hourly Trips		Adopted Hourly Trips due to Trip Reduction*	
			Arrival	Departure	Trips In	Trips Out	Trips In	Trips Out
Proposed Phase 1 Development – The Farm								
Apartment	AM Peak	140 units	0.222 *(per unit)*	0.585 *(per unit)*	31	82	31	82
	PM Peak		0.341 *(per unit)*	0.207 *(per unit)*	48	29	48	29
Creche	AM Peak	25 pupils	0.224 *(per pupil)*	0.195 *(per pupil)*	6	5	2	2
	PM Peak		0.180 *(per pupil)*	0.228 *(per pupil)*	5	6	2	2
Café	AM Peak	65 m^2 GFA	6.532 *(per 100m^2)*	5.612 *(per 100m^2)*	4	4	1	1
	PM Peak		4.646 *(per 100m^2)*	4.968 *(per 100m^2)*	3	3	1	1
Sub-total (A)	**AM Peak**	-	-	-	-	-	**34**	**85**
	PM Peak	-	-	-	-	-	**51**	**32**
Phase 2 Development – The Meadows								
Apartment	AM Peak	280 units	0.222 *(per unit)*	0.585 *(per unit)*	62	164	62	164
	PM Peak		0.341 *(per unit)*	0.207 *(per unit)*	95	58	95	58
Creche	AM Peak	35 pupils	0.224 *(per pupil)*	0.195 *(per pupil)*	8	7	2	2
	PM Peak		0.180 *(per pupil)*	0.228 *(per pupil)*	6	8	2	2
Sub-total (B)	**AM Peak**	-	-	-	-	-	**64**	**166**
	PM Peak	-	-	-	-	-	**97**	**60**

Type	Time	Factor	Adopted Vehicle Trip Rate		Hourly Trips		Adopted Hourly Trips due to Trip Reduction*	
			Arrival	Departure	Trips In	Trips Out	Trips In	Trips Out
Potential Phase 3 Development – The North Fields								
Apartment	AM Peak	200 units	0.222 *(per unit)*	0.585 *(per unit)*	44	117	44	117
	PM Peak		0.341 *(per unit)*	0.207 *(per unit)*	68	41	68	41
Sub-total (C)	**AM Peak**	-	-	-	-	-	**44**	**117**
	PM Peak	-	-	-	-	-	**68**	**41**
Entire Development (Phase 1 to Phase 3 Developments)								
Total	**AM Peak**	-	-	-	-	-	**142**	**368**
	PM Peak	-	-	-	-	-	**216**	**133**

*Note: * 70% trip reduction was applied for the proposed creche and café as by-pass trips.*

Expected trip generation for the entire development (Phase 1 to Phase 3) was estimated and was revealed to be in total 142 trips inbound and 368 trips outbound in the morning peak hour, and 216 trips inbound and 133 trips outbound in the evening peak hour.

7.3 Trip Distribution - Entire Development

The future development traffic distribution is likely to mirror existing traffic patterns (i.e. development generated flows will be split through the junction proportionally to existing flows). Following the trip distribution for Phase 1 and Phase 2 developments (refer to **Appendix 5**) and trip distribution for Phase 3 development (refer to **Appendix 7**), **Appendix 8** illustrates the trip generation for entire development respectively, arriving and departing the proposed development during the morning and evening peak periods.

7.4 Trip Assessment Years - Entire Development

It is likely that the entire development will be fully operational in advance of the 15 Year Design Horizon – 2043 used in the Phase 1 – The Farm traffic analysis above. Therefore, the traffic analysis associated with the entire development will focus on the 15 Year Design Horizon – 2043. The analysis will compare the 2043 "without" entire development scenario and with the 2043 "with" entire development scenario. This will serve as a stress test for the surrounding junctions when the entire development is complete.

The projected 2043 background traffic flows have been calculated by factoring up the 2025 recorded traffic flows in accordance with the TII Publications Project Appraisal Guidelines for National Roads document "Unit 5.3 Travel Demand Projections, Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates" by using low sensitivity traffic growth rates.

The 2043 Design Year traffic flows are equal to the sum of their respective year background traffic flows (as derived above) and the trips generated from those permitted developments to create the "without" entire development scenario. Additional traffic flows due to the entire development is then applied to this year flows to create the "with" entire development scenario.

8 TRAFFIC IMPACT – ENTIRE DEVELOPMENT

8.1 Trip Generation (Entire Development) as a Percentage of Existing Traffic

In order to assess the future traffic impact of the entire development the NRA Traffic and Transport Assessment Guidelines were assessed to determine the threshold requirements for a traffic impact assessment.

Expected trip generation for the Entire Development was estimated as shown in Section 7.2 and was revealed to be in total 142 trips inbound and 368 trips outbound in the morning peak hour, and 216 trips inbound and 133 trips outbound in the evening peak hour. An exercise was carried out to quantify the expected entire development trip generation as a proportion of existing traffic flows on the surrounding road network to determine if a detailed traffic impact assessment is required for all of the junctions included within the scoping study.

It is anticipated that the future background traffic flows shall be factored up in accordance with "Unit 5.3 Travel Demand Projections, Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates" under low sensitivity growth rates. In view of the above, the existing traffic flows will be used instead of future traffic flows in order to provide a robust analysis and a "worst-case" scenario. The result of this trip distribution and assignment exercise is presented in **Table 8.1** and **Table 8.2**.

TABLE 8.1 – ENTIRE DEVELOPMENT MORNING PEAK HOUR TRIP GENERATION AS A PERCENTAGE OF EXISTING ROAD NETWORK TRAFFIC FLOW

Junction	Junction AM Peak Traffic	Entire Development Generated Traffic	Percentage Change
Junction 1 – Bessboro Road / Bessboro Access Road Roundabout	408	510	**124.9%**
Junction 2 – Skehard Road / Bessboro Road	1,524	464	**30.4%**
Junction 3 – Church Road / Skehard Road	1,585	263	**16.6%**
Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road	1,771	206	**11.6%**

As demonstrated by **Table 8.1**, the ratio of estimated trips associated with the entire development to the existing traffic flows in 2025 is greater than 5% for Junction 1 to Junction 4 in the morning peak hour.

TABLE 8.2 – ENTIRE DEVELOPMENT EVENING PEAK HOUR TRIP GENERATION AS A PERCENTAGE OF EXISTING ROAD NETWORK TRAFFIC FLOW

Junction	Junction PM Peak Traffic	Entire Development Generated Traffic	Percentage Change
Junction 1 – Bessboro Road / Bessboro Access Road Roundabout	331	349	**105.5%**
Junction 2 – Skehard Road / Bessboro Road	1,547	329	**21.3%**
Junction 3 – Church Road / Skehard Road	1,667	165	**9.9%**
Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road	1,992	166	**8.3%**

As demonstrated by **Table 8.2**, the ratio of estimated trips associated with the entire development to the existing traffic flows in 2025 is greater than 5% for Junction 1 to Junction 4 in the evening peak hour.

It is acknowledged that estimated additional flows at Junction 1 to Junction 4 are greater than 5% of the traffic flow on the existing road network where congestion exists or the location is sensitive. Therefore, capacity assessments on Junction 1 to Junction 4 were undertaken by using the TRL's analysis software: ARCADY for roundabout junction and JCT Consultancy Limited analysis software: LinSig3 for signalised junction.

Figure 8.1 and **Figure 8.2** illustrate the 2043 Design Year stress test for the "without" and "with" entire development scenarios for both the morning and evening peak hours.

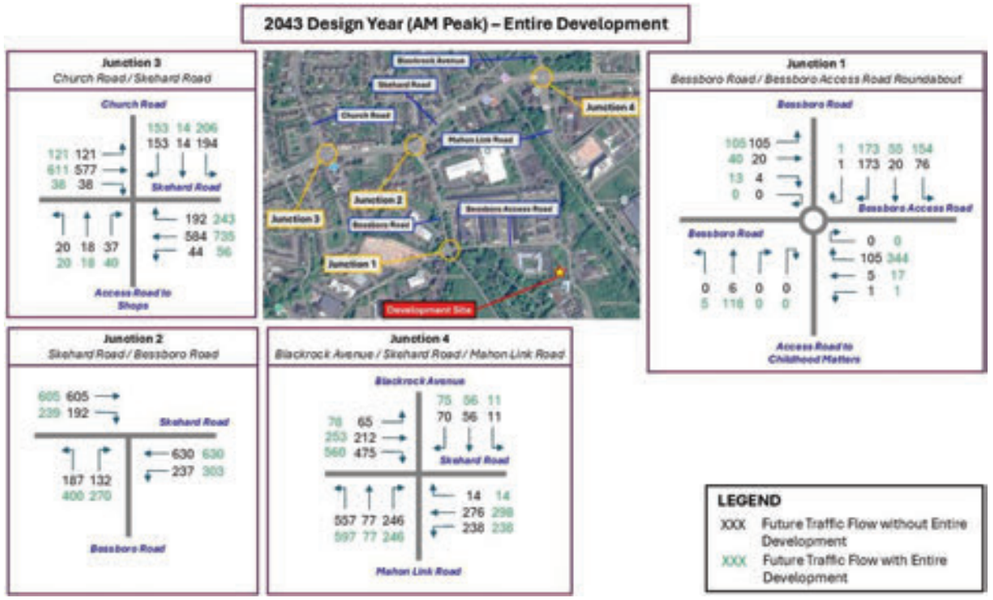

FIGURE 8.1 – 2043 DESIGN YEAR (ENTIRE DEVELOPMENT) TRAFFIC FLOWS (PCU) IN THE MORNING PEAK HOUR (WEEKDAY) – STRESS TEST

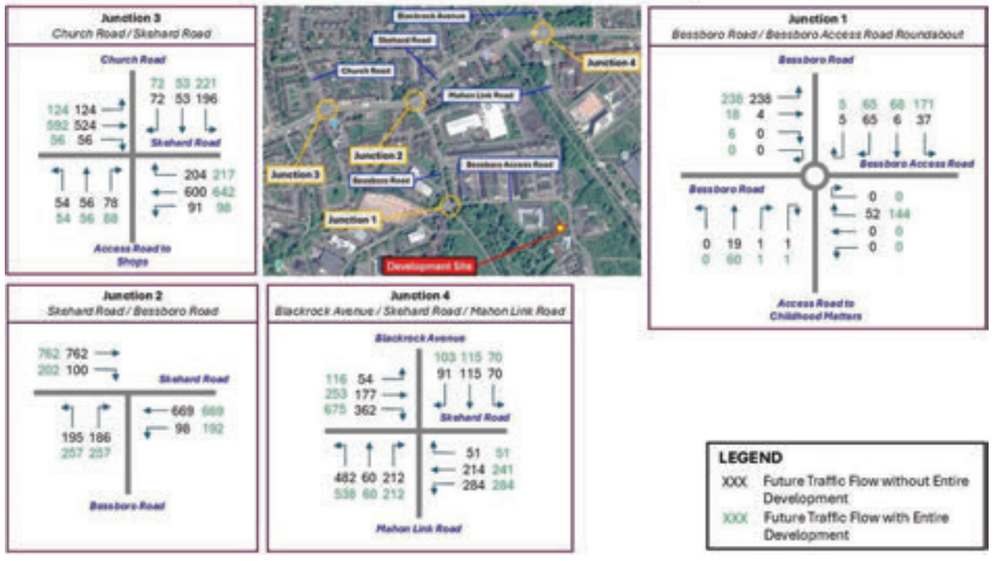

FIGURE 8.2 – 2043 DESIGN YEAR (ENTIRE DEVELOPMENT) TRAFFIC FLOWS (PCU) IN THE EVENING PEAK HOUR (WEEKDAY) – STRESS TEST

To demonstrate the direct traffic impact associated with the entire development on the key junctions being considered, the traffic modelling exercise was carried out for both the "without" entire development and "with" entire development scenarios.

8.2 Operational Phase 2043 Design Year – Junction Capacity (Entire Development)

A summary of the results of the analysis for the 2043 Design Year, "without" entire development and "with" entire development scenarios, in both the morning and evening peak hours is shown in **Table 8.3** to **Table 8.6**.

Junction 1 – Bessboro Road / Bessboro Access Road Roundabout

TABLE 8.3 – 2043 DESIGN YEAR (ENTIRE DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 1

Approach Arm	Scenario	Max. RFC		Max. Queue (PCU)		Average Delay (Seconds)	
		AM	PM	AM	PM	AM	PM
Bessboro Road North	Without Development	0.37	0.15	1	0	8	6
	With Entire Development	0.54	0.43	1	1	11	9
Bessboro Access Road	Without Development	0.13	0.05	0	0	5	4
	With Entire Development	0.42	0.16	1	0	7	5
Access Road to Childhood Matters	Without Development	0.01	0.04	0	0	7	6
	With Entire Development	0.35	0.11	1	0	16	8
Bessboro Road West	Without Development	0.19	0.35	0	1	7	8
	With Entire Development	0.34	0.43	1	1	12	10

The normal design threshold for the RFC is 0.85 for a roundabout junction. The results shown in **Table 8.3** demonstrates that Junction 1 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" entire development and "with" entire development scenarios.

Junction 2 – Skehard Road / Bessboro Road

TABLE 8.4 – 2043 DESIGN YEAR (ENTIRE DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 2

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Skehard Road East	Without Development	0.79	0.73	22	20
	With Entire Development	**1.06**	**0.93**	67	31
Bessboro Road	Without Development	0.64	0.70	6	7
	With Entire Development	**1.08**	**0.91**	50	15
Skehard Road West	Without Development	0.69	0.75	14	21
	With Entire Development	**1.07**	**0.91**	55	30

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 8.4** demonstrate that Junction 2 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for the "without" entire development scenario.

However, under a robust and conservative analysis (i.e. little additional transport interventions), Junction 2 will slightly exceed the normal design threshold (but still less than theoretical capacity of 1.0) in the evening peak hour for the "with" entire development scenario, resulting in queues and delays for motorists. In the morning peak hour, Junction 2 will slightly exceed the theoretical capacity of 1.0 for the "with" entire development scenario, resulting in queues and delays for motorists.

It should be also noted that the above results present a "worst-case" situation because the assessment has included on-demand stage (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian movement phasing.

Additionally, the provision of future cycling network as mentioned in Section 2.4 and provision of public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) to encourage increased modal shift away from the use of private car will result in a decrease in traffic at the existing junctions in the vicinity of the proposed development. After completion of these improvements, the performance of this junction could be further improved.

Junction 3 – Church Road / Skehard Road

TABLE 8.5 – 2043 DESIGN YEAR (ENTIRE DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 3

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Church Road	Without Development	**1.02**	**0.97**	22	16
	With Entire Development	**1.11**	**1.06**	35	26
Skehard Road East	Without Development	**0.96**	**0.95**	22	28
	With Entire Development	**1.07**	**1.02**	54	37
Access Road to Shop	Without Development	0.37	**0.93**	2	8
	With Entire Development	0.37	**1.06**	2	14
Skehard Road	Without Development	**1.02**	**0.99**	37	29
	With Entire Development	**1.11**	**1.07**	60	51

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 8.5** demonstrate that Junction 3 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" entire development and "with" entire development scenarios, under a robust and conservative analysis (i.e. little additional transport interventions).

It should be also noted that the above results present a "worst-case" situation because the assessment has included on-demand stages (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian and vehicular movement phasing.

Additionally, the provision of future cycling network as mentioned in Section 2.4 and provision of public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) to encourage increased modal shift away from the use of private car will result in a decrease in traffic at the existing junctions in the vicinity of the proposed development. After completion of these improvements, the performance of this junction could be further improved.

Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road

TABLE 8.6 – 2043 DESIGN YEAR (ENTIRE DEVELOPMENT) JUNCTION CAPACITY ANALYSIS FOR JUNCTION 4

Approach Arm	Scenario	Max. DOS		Mean Max. Queue (PCU)	
		AM	PM	AM	PM
Blackrock Avenue	Without Development	0.63	**1.53**	3	61
	With Entire Development	0.67	**1.53**	3	63
Skehard Road East	Without Development	**1.34**	**1.07**	51	22
	With Entire Development	**1.44**	**1.20**	65	37
Mahon Link Road	Without Development	**1.41**	**1.48**	165	155
	With Entire Development	**1.50**	**1.55**	194	179
Skehard Road West	Without Development	**1.34**	**1.48**	126	202
	With Entire Development	**1.50**	**1.56**	188	234

The normal design threshold for the DOS is 0.9 for a signalised junction. The results shown in **Table 8.6** demonstrate that Junction 4 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for both the "without" entire development and "with" entire development scenarios, under a robust and conservative analysis (i.e. little additional transport interventions).

It should be also noted that the above results present a "worst-case" situation because the assessment has included on-demand stages (i.e. all-red stage), which may appear occasionally in a cycle, for pedestrian and vehicular movement phasing.

Additionally, the provision of future cycling network as mentioned in Section 2.4 and provision of public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) to encourage increased modal shift away from the use of private car will result in a decrease in traffic at the existing junctions in the vicinity of the proposed development. After completion of these improvements, the performance of this junction could be further improved.

8.3 Summary

It is noted that the junction analysis for the entire development is a robust and conservative analysis. Junction 1 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for the "with" entire development scenario while Junction 2, Junction 3 and Junction 4 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for the "with" entire development scenario. However, the Entire Development 2043 analysis assumes that little additional transport interventions have been applied to the road network in the vicinity of the proposed development and presents a "worst-case" situation where the full impact of population growth and employment distribution is assigned to the existing road network. The analysis does not consider that by 2043 further sustainable transport improvements in the vicinity of the proposed development such as proposed future cycling network as mentioned in Section 2.4 and public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) will all have a positive effect on the modal split, reducing the impact on surrounding junctions.

It should be also noted that Phase 2 and Phase 3 developments are not a part of this planning application (Phase 1 development) and will be submitted in a separate planning application in the future.

9 MOBILITY MANAGEMENT PLAN

9.1 Mobility Management Plan

Mobility management plans (MMP) for developments have the potential to help achieve more sustainable communities by improving accessibility and travel choice. This MMP should be considered as guidance and an available resource which identifies objectives and measures aimed at improving travel sustainability and choice. The effectiveness of the MMP will be increased if adopted by a residents group or committee. The primary goal of the Mobility Management Plan will be to facilitate and encourage a positive modal shift at the development towards sustainable modes of transport. Taking this into account, the objectives of the MMP are as follows:

- To reduce the dependence on the private car as a means of travel;
- To discourage the use of the private car for single occupancy use;
- To increase and facilitate the number of people choosing to walk, cycle or travel by public transport to/from the proposed development;
- To develop a car park management strategy;
- To work closely with Cork City Council, the National Transport Authority, Bus Eireann, and all other relevant stakeholders in a partnership model to promote any updates in public transport; and
- Promote a healthier lifestyle.

The plan sets out targets and objectives along with the mechanisms, including both hard and soft measures, which could be put in place to support a positive modal shift. This is the first stage of the plan and will revise and develop accordingly once more detailed information regarding the final occupiers becomes available. The aim is that the plan is a live document that would be updated regularly based on experience gained from its implementation and operation and changes in transport trends.

The benefits of a MMP can be summarised as follows:

- Reducing the need for car use and carbon emissions;
- Education with respect to sustainable travel;
- Improve accessibility and travel choice for reaching local facilities and amenities;
- Complement nearby existing Travel Plans;
- Achieving a more attractive and safer development by reducing car use;
- Increasing marketability of the development as more households seek to change their travel behaviour;
- Improving the health of residents; and
- Improve knowledge of residents in relation to travel routes and locations of facilities.

The proposed development will have a management company who will make available the necessary travel information for residents on how to access a number of key destinations within and surrounding the Cork (i.e. Cork City, Mahon, Blackrock, etc.). The aim of the measures of a MMP would be to minimise single-occupancy car-based travel and to encourage residents and visitors to use more sustainable modes of travel such as walking, cycling, public transport and car sharing.

9.2 Specific Measures

In order to achieve the long-term objectives and modal split targets, a number of specific measures are proposed to be put in place.

9.2.1 Management and Co-ordination

A Mobility Management Plan Co-ordinator will be appointed as part of a residential committee or management agent. This may be a group of keen likeminded people that can assist in promoting. The implementation and management of the MMP will be the responsibility of the Mobility Management Plan Co-ordinator team on site. The role will be to assist in proving travel information and be a point of contact for any travel issues for all events and ensure the MMP is monitored and updated as required. The duties of a Mobility Management Plan Co-ordinator are:

- Liaising with Cork City Council and developers in progressing the future measures for the area;
- Support the implementation of various schemes aimed at encouraging the use of more sustainable travel methods;
- Use noticeboards to keep people up to date with accessible public transport provision, walking/cycling opportunities and available schemes. These can also be used in open spaces for residential information such in local commercial unit; and
- Potential to provide residential packs to new residents highlighting the bus routes, walking and cycling routes.

9.2.2 Travel Information and Marketing

Travel information, regarding the different transport modes that can be used to reach the site will be displayed on a The Farm website with a section on 'how to get there'. A travel notice board is a particularly useful method for distributing information in addition to the electronic resources.

9.2.3 Car sharing

Initial contact has also been made with Go-Car (https://www.gocar.ie/). This is a membership based program where, once you join, you can rent a car or van for as little as an hour and up to a year. The service aims to reduce car dependency by promotion of on demand cars near where you live, work and play so you can have a car close to hand should you need one. Once you've signed up you simply book the car you want for the time you need, unlock it using our app/membership card, take the keys from the glovebox and drive it as normal. To finish your booking you just drop the car back to where you picked up. There are approximately 700 go car locations in Ireland where cars can be collected or dropped with numerous locations in Cork. The developer is keen to work with Go Car to provide spaces in the proposed development to provide this attractive service for residents.

9.2.4 Car Parking Management Strategy

A detailed car park management strategy will be put in place to ensure there are no issues with overspill parking and illegal parking.

9.2.5 Cycle/ Pedestrian Facilities

There are a range of walking and cycle facilities in the area with links from the proposed development to these. Additional walking and cycling routes will be provided throughout the development including the Greenway connectivity.

10 MITIGATION MEASURES

10.1 Operational Traffic

10.1.1 Proposed Infrastructure by Others

With reference to Section 2.4 above, it is proposed to introduce three primary cycle corridors (including CSE-U18 along Mahon Link Road, CSE-U15 along the Bessboro Road and Bessboro Access Road and CSE-U14 along Skehard Road) in the vicinity of the proposed development. Additionally, two greenways (including PW-GW1, which is Passage West Greenway, and CSE-GW3) are proposed in the vicinity of the proposed development. The aforementioned infrastructure will encourage a shift to more sustainable modes of transport and provide safer facilities particularly for children walking and cycling to school.

10.1.2 Proposed Public Transport by Others

The proposed public transport (including the proposed BusConnects proposal as mentioned in Section 2.6.1.1 and proposed Light Rail Transit as mentioned in Section 2.6.1.2) will also encourage a shift to more sustainable modes of transport and provide safer facilities particularly for children walking and cycling to school, but also for adults and families travelling to and from the town centre and beyond.

10.1.3 CMATS

The Cork Metropolitan Area Transport Strategy (CMATS) represents a coordinated land use and transport strategy for Cork Metropolitan Area (CMA). It sets out a framework for the planning and delivery of transport infrastructure and services to support the CMA's development in the period up to 2040.

As part of CMATS, there are a number of improvements to public transport, walking and cycling facilities in the immediate vicinity of the proposed development. The land use distribution chapter of CMATS indicates the proposed development is located adjacent to a designated residential area. See **Figure 10.1**.

Further to this, measures are outlined in CMATS to provide appropriate transit options for the proposed residential area. Included in CMATS is an indicative route showing Light Rail from Mahon Point to Ballincollig via Cork City, just north of the proposed site and a proposed station nearby. BusConnects could be a precursor to Light Rail but either way, this development will be well served by these future public transport services.

Additionally, this development, can support the case for BusConnects/Light Rail along this route by improving its viability due to the potential increase in passengers from this area. These future projects will further assist in the modal shift from private car to public transport, walking and cycling.

FIGURE 10.1 – CMATS LAND DISTRIBUTION

10.2 Construction Traffic

10.2.1 Construction and Environmental Management Plan

A Construction and Environmental Management Plan (CEMP) will be prepared by the Applicants to ensure that proper procedures are put in place to minimise the impact of the construction stage on public roads and the surrounding environment in general. This CEMP is being submitted as part of this Planning Application to CCC, which includes, inter alia, indicative phasing of the works, hours of operation, a traffic management plan, noise and dust mitigation measures etc. A Construction Manager will be appointed to liaise directly with the various sections of CCC and develop the plan as required.

The construction management plan will take into account construction vehicle routing and timing to mitigate any issues with vehicles on public roads.

The following mitigation measures shall be provided to minimise the impacts to the public road network during the Construction Stage:

- Good construction management practices will be employed such as fencing the site off from the public and neighbouring sites, adequate external/internal signage, secure internal site offices, dedicated construction access points, all to facilitate the safety of construction staff and the public;
- Appropriate levels of staff parking and compounding will be provided to ensure no potential overflow or haphazard parking in the area. The site will be able to accommodate employee and visitor parking throughout;
- Set construction traffic routes to and from the site will be agreed with CCC prior to the commencement of construction activities on site. Where necessary the time of day permittable for such routes will also be agreed upon and outside of the morning/evening peak hours;
- Tracked excavators will be moved to and from the site on low-loaders and will not be permitted to drive on the street pavements;
- Wheel washers / judder bars will be placed at all site access points to minimise the migration of detritus onto the public roads. The roads will be inspected and cleaned on a regular basis; and
- Haul vehicles will be covered after loading to ensure there is no risk of construction material falling.

11 PARKING PROVISION FOR PHASE 1 DEVELOPMENT

11.1 Proposed Car Parking for Phase 1 Development (including Electric Vehicle Charging)

As the site is located in Blackrock, it will be classified as Zone 3 in accordance with Table 4.6 of Cork City Development Plan 2022-2028. With reference to Table 11.13 of the Cork City Development Plan 2022-2028, a summary of the car parking required is presented in **Table 11.1**.

TABLE 11.1 – CAR PARKING COMPLIANCE FOR PROPOSED PHASE 1 DEVELOPMENT

Proposed Phase 1 Development	Cork City Development Plan 2022-2028		Factor	Max. Car Parking Required	Proposed Car Parking
	Land Use Category	Max. Car Parking Required			
Residential Phase 1 Development					
1-2 bedrooms Apartment	Residential (1-2 bedrooms)	1.25 space per unit	139 units	174	-
3 bedrooms Apartment	Residential (3 or above bedrooms)	2.25 spaces per unit	1 unit	2	-
Sub-total Car Parking Spaces for the Proposed Residential Development:				**176**	**55**
Non-Residential Phase 1 Development (i.e. Creche and Café)					
Creche	Creches	1 space per 6 children	25 children	4	4*
Café	Café, Restaurants and Takeaways	1 space per 50 nsm	65 nsm	1	-
Sub-total Car Parking Spaces for the Proposed Creche and Café:				**5**	**4**
Total Car Parking Spaces for the Proposed Phase 1 Development:				**181**	**59**

*Note: * 4 parking spaces for creche drop off only.*

The proposed Phase 1 development will provide 59 car parking spaces, with 55 car parking spaces for apartment units and 4 car parking spaces for the proposed creche. It should be noted that these 4 parking spaces for the proposed creche are for drop-off only. The application provides only 33% of the total allowable car parking spaces, which is clearly significantly lower than the maximum level allowable car parking spaces (i.e. 181 car parking spaces) under the standards set out in the Cork City Development Plan 2022-2028 and as shown in **Table 11.1**. This reduced parking provision is in the context of the significant proximity and connectivity of the proposed development to existing and planned sustainable travel modes.

Included in the 55 car parking spaces provided for apartment units, 3 accessible parking spaces will be provided for the proposed Phase 1 development. Additionally, it is proposed to provide 5 motorcycle parking spaces for the apartment units. It should be noted that the Developer will further review the number of motorcycle parking spaces in the final design as required in the Cork City Development Plan 2022-2028.

11.1.1 Electric Vehicle (EV) Charging

Provision of appropriate infrastructure (i.e. ducting) will be made for the fitting of car charging points to all proposed car parking spaces for the proposed residential Phase 1 development to facilitate non-disruptive retro fitting of future Electric Vehicle (EV) charging points. Additionally, the Developer will provide 6 parking spaces with functioning EV charging points from completion of the apartment units. It should be noted that the Developer will further review the number of parking spaces with functioning EV charging points in the final design as required in the Cork City Development Plan 2022-2028.

11.2 Proposed Bicycle Parking for Phase 1 Development

According to Table 11.14 of the Cork City Development Plan 2022-2028, a summary of the bicycle parking required is presented in **Table 11.2**.

TABLE 11.2 – BICYCLE PARKING COMPLIANCE FOR PROPOSED PHASE 1 DEVELOPMENT

Proposed Phase 1 Development	Cork City Development Plan 2022-2028		Factor	Min. Bicycle Parking Required	Proposed Bicycle Parking
	Land Use	Min. Bicycle Parking Required			
Residential Phase 1 Development					
Apartment	Standard Apartments	0.5 space per unit	140 units	70	230
Sub-total Bicycle Parking Spaces for the Proposed Residential Development:				**70**	**230**
Non-Residential Phase 1 Development (i.e. Creche and Café) and Visitors					
Creche	Creches	1 space per 25 children	25 children	1	-
Café	Restaurants, Cafes	1 space per 200 m^2 GFA	65 m^2 GFA	1	-
Visitor	-	-	-	-	-
Sub-total Bicycle Parking Spaces for the Proposed Creche, Café and Visitors:				**2**	**100**
Total Bicycle Parking Spaces for the Proposed Phase 1 Development:				**72**	**330**

It is proposed to provide 330 bicycle parking spaces, with 230 bicycle parking spaces for apartment units and 100 bicycle parking spaces for the proposed creche, proposed café and visitors. This exceeds the minimum bicycle parking requirements of 72 bicycle parking spaces as required in the Cork City Development Plan 2022-2028 and as shown in **Table 11.2**. It should be noted that the application provides at least 4 times more than the required bicycle parking spaces as set out in the Cork City Development Plan 2022-2028. This will encourage a shift to more sustainable modes of transport.

12 SUMMARY & CONCLUSIONS

This TTA examines the impacts of the proposed Large-Scale Residential Development (LRD) – Phase 1 "The Farm" in Bessborough, Blackrock, Cork. The proposed Phase 1 development consists of 140 apartment units (comprising of 70 no. one-bedroom, 69 no. two-bedroom and 1 no. three-bedroom), creche, café, new pedestrian / cycle bridge over the adjoining Passage West Greenway to the east, associated roads, footpaths, private driveways, site services, SuDS measures, shared communal facilities, building management facilities (including plant and storages), substation, playground and outdoor amenity spaces, landscaping, on-street car parking spaces, bicycle parking spaces, bin stores, public lighting and sundry related works.

At the time of writing, six other developments, including Hotel and Office Development (Hibernia Star Ltd.), SHD Development (Montip Horizon Ltd.), Office Development (O'Flynn Construction Co. Unlimited Company), "Bessboro" Development (Murphy Transport Ltd.), Office Development (City Gate Plaza Developments Ltd.) and Residential Development (Clyde Real Estate Cork Ltd.), in the vicinity of the proposed development have obtained planning permission. Those permitted developments shall be considered for this study in both the "without" and "with" development scenarios.

Vehicle turning movement surveys were undertaken on Friday, 3rd October 2025 and Saturday, 4th October 2025 at the six junctions near the site. Junction 1 to Junction 4 were selected for assessment as they are considered the junctions most likely to be affected by traffic associated with the proposed Phase 1 development. The selection of these junctions was agreed in pre-planning discussions with Cork City Council and are the junctions which were assessed previously under the SHD application for The Farm development. As the traffic flows in morning and evening peak hours under Weekday scenarios are greater than the peak hour traffic flows on Saturday scenarios for Junction 1 to Junction 4 inclusive, this study will focus on the Weekday scenarios, which are the "worst-case" scenarios. The vehicle turning movement survey at Junction 5 and Junction 6, which provide direct access to the nearby residential development with 135 units (with Planning Application Reference: 18/37820), has been used to calculate the existing trip rates of this residential development adjacent to the proposed development.

- Junction 1 – Bessboro Road / Bessboro Access Road Roundabout;
- Junction 2 – Skehard Road / Bessboro Road;
- Junction 3 – Church Road / Skehard Road;
- Junction 4 – Blackrock Avenue / Skehard Road / Mahon Link Road;
- Junction 5 – Bessboro Road / Western Access to the nearby Residential Development; and
- Junction 6 - Bessboro Access Road / Eastern Access to the nearby Residential Development.

Expected trip generation for the proposed residential Phase 1 development was estimated utilising the traffic count data while expected trip generation for the proposed non-residential Phase 1 development (i.e. creche and cafe) were estimated utilising the TRICS database and applying the 70% trip reduction factor due to the "Pass-by" trips. Therefore, expected trip generation for the proposed Phase 1 development was estimated to be in total 34 trips inbound and 85 trips outbound in the morning peak hour, and 51 trips inbound and 32 trips outbound in the evening peak hour.

An exercise was carried out to quantify the expected Phase 1 development trip generation as a proportion of existing traffic flows on the surrounding road network to determine if a detailed traffic impact assessment is required for all of the junctions included within the scoping study. The ratio of estimated trips associated with the proposed Phase 1 development for Junction 3 and Junction 4 represent a small proportion of existing traffic flows on the surrounding road network and less than the thresholds for traffic impact assessment stated in the Table 2.1 of TII Traffic and Transport Assessment Guidelines (i.e. 10% of the traffic flow on the existing road network and 5% in sensitive environments or where congestion exists) during the morning and evening peak hours. Thus, it is not necessary to undertake any traffic capacity assessments for Junction 3 to Junction 4 due to the proposed Phase 1 development.

It is acknowledged that estimated additional flows at Junction 1 and Junction 2 are greater than 5% of the traffic flow on the existing road network where some congestion exists, or the location is sensitive. Therefore, capacity assessments on Junction 1 and Junction 2 due to the proposed Phase 1 development are required.

Notwithstanding the minimal % increase in traffic at Junctions 3 and 4, and in order to have a better understanding of this minimal traffic impact on Junction 3 and Junction 4 due to the proposed Phase 1 development, capacity assessments have also been carried out on Junction 3 and Junction 4. As a result, analyses of Junction 1 to Junction 4 was undertaken using the TRL analysis software: ARCADY for roundabout junction and LinSig3 for signalised junctions.

Typically, an RFC of less than 0.85 normal design threshold for a roundabout junction and a DOS of less than 0.9 normal design threshold for a signalised junction are considered to indicate satisfactory performance (i.e. operating in an efficient and stable condition). A RFC of between 0.85 and 1 for roundabout junction and a DOS of between 0.9 and 1 for signalised junction represent variable operation, and may be said to be operating adequately, if the queue and delay are deemed acceptable. RFC and DOS values in excess of 1 represent an oversaturated condition.

2025 Baseline Year

In 2025 Baseline Year, Junction 1 to Junction 3 are operating within the normal design threshold in both the morning and evening peak hours. However, Junction 4 is operating over the normal design threshold in both the morning and evening peak hours, resulting in queues and delays for motorists.

Traffic Impact (Phase 1 Development) in 2028 Opening Year and in 2043 Design Year (Opening Year plus 15 years)

In 2028 Opening Year and 2043 Design Year, Junction 1 and Junction 2 will also operate within the normal design threshold in both the morning and evening peak hours for both the "without" development and "with" Phase 1 development scenarios.

Junction 3 and Junction 4 will exceed the normal design threshold in 2028 and 2043 in the morning and evening peak hours for both the "without" development and "with" Phase 1 development scenarios. However, the ratio of estimated trips associated with the proposed Phase 1 development to the existing traffic flows in 2025 is less than 5% for Junction 3 and Junction 4 in both the morning and evening peak hours. Additionally, it is clear that the impact on Junction 3 and Junction 4 will be mainly due to regular background traffic growth and not the proposed Phase 1 development per se. Therefore, traffic from the proposed Phase 1 development will not cause a significant impact on Junction 3 and Junction 4. It should be also noted that the provision of future cycling network and provision of public transport infrastructure (BusConnects and proposed light rail transit) to encourage increased modal shift away from the use of private car will result in a decrease in traffic at the existing junctions in the vicinity of the proposed development. After completion of these improvements, the performance of these junctions could be further improved.

Traffic Impact (Entire Development) in 2043 Design Year (Opening Year plus 15 years)

In order to produce a robust assessment, this report has also analysed the traffic impact of the entire development (when complete, Phase 1 to Phase 3 developments) comprising of c. 620 residential units. Expected trip generation for the entire development (Phase 1 to Phase 3) was estimated and was revealed to be in total 142 trips inbound and 368 trips outbound in the morning peak hour, and 216 trips inbound and 133 trips outbound in the evening peak hour.

It is acknowledged that estimated flows arising from the entire development at Junction 1 to Junction 4 are greater than 5% of the traffic flow on the existing road network where congestion exists or the location is sensitive. Therefore, capacity assessments on Junction 1 to Junction 4 due to the entire development was undertaken by using the TRL's analysis software: ARCADY for roundabout junction and JCT Consultancy Limited analysis software: LinSig3 for signalised junction.

It is noted that the junction analysis for the entire development is a robust and conservative analysis. Junction 1 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for the "with" entire development scenario while Junction 2, Junction 3 and Junction 4 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for the "with" entire development scenario. However, the Entire Development 2043 analysis assumes that little additional transport interventions have been applied to the road network in the vicinity of the proposed development and presents a "worst-case" situation

where the full impact of population growth and employment distribution is assigned to the existing road network. The analysis does not consider that by 2043 further sustainable transport improvements in the vicinity of the proposed development such as proposed future cycling network as mentioned in Section 2.4 and public transport infrastructure (BusConnects as mentioned in Section 2.6.1.1 and proposed light rail transit as mentioned in Section 2.6.1.2) will all have a positive effect on the modal split, reducing the impact of the development on surrounding junctions.

It should be also noted that the Phase 2 and Phase 3 developments are not a part of this planning application (Phase 1 development) and will be submitted in a separate planning application in the future.

Car Parking Provision for Phase 1 Development

The proposed Phase 1 development will provide 59 car parking spaces, with 55 car parking spaces for apartment units and 4 car parking spaces for the proposed creche. It should be noted that these 4 parking spaces for the proposed creche are for drop-off only. The application provides only 33% of the total allowable car parking spaces, which is clearly significantly lower than the maximum level allowable car parking spaces (i.e. 181 car parking spaces) under the standards set out in the Cork City Development Plan 2022-2028. This reduced parking provision is in the context of the significant proximity and connectivity of the proposed development to existing and planned sustainable travel modes.

Included in the 55 car parking spaces provided for apartment units, 3 accessible parking spaces and 6 parking spaces with functioning EV charging points will be provided for the proposed Phase 1 development. Additionally, it is proposed to provide 5 motorcycle parking spaces for the apartment units. It should be noted that the Developer will further review the number of parking spaces with functioning EV charging points and motorcycle parking spaces in the final design as required in the Cork City Development Plan 2022-2028.

Bicycle Parking Provision for Proposed Phase 1 Development

It is proposed to provide 330 bicycle parking spaces, with 230 bicycle parking spaces for apartment units and 100 bicycle parking spaces for the proposed creche, proposed café and visitors. This exceeds the minimum bicycle parking requirements of 72 bicycle parking spaces as required in the Cork City Development Plan 2022-2028. It should be noted that the application provides at least 4 times more than the required bicycle parking spaces as set out in the Cork City Development Plan 2022-2028. This will encourage a shift to more sustainable modes of transport.

Summary

In view of the above analysis, traffic from the proposed development as described herein will not have a significant impact on existing and proposed traffic in the vicinity of the development. This site is very well placed to encourage the use of sustainable modes of transport. With continued investment in road, cycle and pedestrian infrastructure in the area and the enhancement of public transport (i.e. BusConnects and proposed Light Rail Transit with new Greenway Luas stop) by Cork City Council, these transport measures will further encourage a shift to more sustainable modes of transport and provide safer facilities particularly for children walking and cycling to school, but also for adults and families travelling to and from the town centre and beyond. It should be noted that provision of Light Rail Transit with new Greenway Luas stop can accommodate more population growth in this area. The proposed new pedestrian/cycle bridge to span over and link to the Passage West Greenway will offer an immediately adjacent and sustainable connection to these transport infrastructure routes. Additionally, the application provides only 33% of the total allowable car parking spaces and provides at least 4 times more than the required bicycle parking spaces as set out in the Cork City Development Plan 2022-2028. Therefore, the proposed Phase 1 development offers great opportunity to create a sustainable development with significant travel choice available, that has been considerably enhanced by the developer, and the proposed development is a sustainable walking/cycling distance to key infrastructure and amenities.

APPENDIX 1 – TRAFFIC COUNT DATA

IDASO

Survey Name: 251010 - Bessboro, Cork
Date: Fri 03 Oct 2025 — Sat 04 Oct 2025

Traffic Count Data on 3 October 2025 (Friday)

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 1
Location: Bessboro Rd / Bessboro Roundabout
Date: Fri 03-Oct-2025

Arm A - Bessboro
Arm B - Access To Childhood Matters
Arm C - Bessboro Rd West
Arm D - Bessboro Rd North

	A => A									A => B									A => C									A => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:30	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	7	2	0	0	0	10	9.2
H/TOT	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	22	2	0	0	0	25	24.2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	25	0	0	0	0	25	25
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28	28
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	1	18	1	0	0	0	20	19.4
08:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4	0	1	82	2	0	0	0	85	84.4
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	18	0	0	0	0	18	18
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	34	2	0	0	0	36	36
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	0	1	0	0	5	5.5
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	4	2	0	0	0	6	6
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	22	2	1	0	0	25	25.5
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	9	1	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	24	3	0	0	0	27	27
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	12	0	0	0	0	13	12.2
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	6	1	0	0	0	7	7
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	0	14	14.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	1	0	44	2	1	0	0	48	47.7
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
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13:30	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	11	11.5
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5	0	0	30	0	1	0	0	31	31.5
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14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	34	34
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	4	0	0	0	43	43
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	10	1	0	0	0	12	11.2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	35	3	0	0	0	39	38.2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	7	0	0	0	0	7	7
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	1	0	0	0	11	10.2
17:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	2	1.2	0	0	5	0	0	0	0	5	5
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	2	0	0	0	0	3	2.2	1	0	27	1	0	0	0	29	28.2
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	1	7	0	0	0	0	8	7.4
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	1	19	0	0	0	0	20	19.4
12 TOT	0	0	1	1	0	0	0	2	2	0	0	6	0	0	0	0	6	6	1	0	15	3	1	0	0	20	19.7	4	2	412	21	3	0	0	442	439.1

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 1
Location: Bessboro Rd / Bessboro Roundabout
Date: Fri 03-Oct-2025

Arm A - Bessboro
Arm B - Access To Childhood Matters
Arm C - Bessboro Rd West
Arm D - Bessboro Rd North

	B => A									B => B									B => C									B => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	1	0	0	11	11.5
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	7	2	0	0	0	9	9
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	2	0	0	0	23	23
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
13:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	34	34
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	1	1	0	0	20	20.5
15:00	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
15:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
17:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
12 TOT	0	0	2	1	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	147	9	2	0	0	158	159

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 1
Location: Bessboro Rd / Bessboro Roundabout
Date: Fri 03-Oct-2025

Arm A - Bessboro
Arm B - Access To Childhood Matters
Arm C - Bessboro Rd West
Arm D - Bessboro Rd North

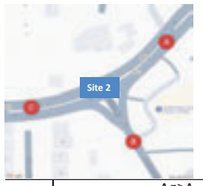
	C => A									C => B									C => C									C => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
07:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	5	6.5
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
07:45	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5.3
H/TOT	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	13	2	3	1	0	19	21.8
08:00	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
08:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
08:30	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	16	1	0	0	0	18	17.2
08:45	0	0	6	0	0	0	0	6	6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	20	20
H/TOT	0	0	16	1	0	0	0	17	17	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	68	6	0	0	0	75	74.2
09:00	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	20	1	3	1	0	25	27.8
09:15	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	7	0	2	0	0	9	10
09:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	4	0	0	0	19	19
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	5	2	0	0	18	19
H/TOT	0	0	6	0	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	53	10	7	1	0	71	75.8
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10
10:15	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	4	0	1	0	18	19.3
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	8	4	2	0	0	14	15
10:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	9	7	0	2	0	19	20.8
H/TOT	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	1	0	39	16	2	3	0	61	65.1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	11	7	0	0	0	18	18
11:15	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	1	0	1	0	20	21.3
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	5	2	1	0	22	24.3
11:45	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	11	4	2	0	0	17	18
H/TOT	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	54	17	4	2	0	77	81.6
12:00	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	4	1	0	0	24	24.5
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	1	3	1	0	25	27.8
12:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	5	1	0	0	30	30.5
H/TOT	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	13	5	1	0	95	98.8
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	2	0	0	0	63	63
13:15	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	5	1	1	0	31	32.8
13:30	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	16	3	0	0	0	20	19.4
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	4	0	0	0	31	31
H/TOT	0	0	2	0	1	0	0	3	3.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	128	14	1	1	0	145	146.2
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	6	0	0	0	28	28
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	4	0	0	0	21	21
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
14:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	0	22	22
H/TOT	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	11	0	0	0	83	83
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	37	3	0	1	0	42	42.7
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	21	21
15:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	4	0	0	0	99	99
15:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27
H/TOT	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	177	10	0	1	0	189	189.7
16:00	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	2	0	0	0	37	37
16:15	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
16:30	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	29	29
16:45	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	2	0	1	0	31	32.3
H/TOT	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	5	0	1	0	119	120.3
17:00	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	46	2	0	0	0	50	48.4
17:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	26	26
17:30	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	2	0	0	0	30	30
17:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
H/TOT	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	117	4	0	0	0	123	121.4
18:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	2	0	0	0	24	24
18:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5
18:30	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
18:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	2	0	0	12	13
H/TOT	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	4	3	0	0	53	54.5
12 TOT	0	0	67	5	1	0	0	73	73.5	0	0	9	0	0	0	0	9	9	0	0	4	0	0	0	0	4	4	4	2	956	112	25	11	0	1110	1132.4

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 1
Location: Bessboro Rd / Bessboro Roundabout
Date: Fri 03-Oct-2025

Arm A - Bessboro
Arm B - Access To Childhood Matters
Arm C - Bessboro Rd West
Arm D - Bessboro Rd North

	D => A									D => B									D => C									D => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0
07:15	0	0	3	1	0	0	0	4	4	0	0	5	1	0	0	0	6	6	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
07:30	0	0	2	0	0	0	0	2	2	0	0	5	1	0	0	0	6	6	0	0	10	2	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0
07:45	0	0	7	0	0	0	0	7	7	0	0	12	0	0	0	0	12	12	0	0	26	2	0	0	0	28	28	0	0	0	0	0	0	0	0	0
H/TOT	0	0	12	1	0	0	0	13	13	0	0	27	2	0	0	0	29	29	0	0	61	6	0	1	0	68	69.3	0	0	0	0	0	0	0	0	0
08:00	1	0	17	0	0	0	0	18	17.2	0	0	4	0	0	0	0	4	4	0	0	27	1	0	0	0	28	28	0	0	0	0	0	0	0	0	0
08:15	0	1	14	0	0	0	0	15	14.4	0	0	5	0	0	0	0	5	5	1	1	36	1	0	0	0	39	37.6	0	0	0	0	0	0	0	0	0
08:30	0	0	10	0	0	0	0	10	10	0	0	3	0	0	0	0	3	3	1	0	34	3	0	0	0	38	37.2	0	0	0	0	0	0	0	0	0
08:45	0	0	22	0	0	0	0	22	22	0	0	5	0	0	0	0	5	5	0	0	32	1	0	1	0	34	35.3	0	0	1	0	0	0	0	1	1
H/TOT	1	1	63	0	0	0	0	65	63.6	0	0	17	0	0	0	0	17	17	2	1	129	6	0	1	0	139	138.1	0	0	1	0	0	0	0	1	1
09:00	0	0	17	1	0	0	0	18	18	0	0	14	1	1	0	0	16	16.5	0	0	27	1	2	0	0	30	31	0	0	0	0	0	0	0	0	0
09:15	1	0	5	1	0	0	0	7	6.2	0	0	10	0	0	0	0	10	10	0	0	16	3	0	0	0	19	19	0	0	0	0	0	0	0	0	0
09:30	0	0	2	1	0	0	0	3	3	0	0	3	1	0	0	0	4	4	0	0	21	3	0	0	0	24	24	0	0	0	0	0	0	0	0	0
09:45	0	0	7	0	0	0	0	7	7	0	0	3	0	0	0	0	3	3	0	0	21	4	0	1	0	26	27.3	0	0	0	0	0	0	0	0	0
H/TOT	1	0	31	3	0	0	0	35	34.2	0	0	30	2	1	0	0	33	33.5	0	0	85	11	2	1	0	99	101.3	0	0	0	0	0	0	0	0	0
10:00	0	0	7	1	1	0	0	9	9.5	0	0	4	2	0	0	0	6	6	0	0	10	1	0	1	0	12	13.3	0	0	1	0	0	0	0	1	1
10:15	0	0	5	0	0	0	0	5	5	0	0	2	0	0	0	0	2	2	0	0	14	3	1	1	0	19	20.8	0	0	0	0	0	0	0	0	0
10:30	0	0	3	0	0	0	0	3	3	0	0	5	0	0	0	0	5	5	0	0	6	3	0	1	0	10	11.3	0	0	1	0	0	0	0	1	1
10:45	0	0	3	1	1	0	0	5	5.5	0	0	4	0	0	0	0	4	4	0	0	13	4	0	0	0	17	17	0	0	0	0	0	0	0	0	0
H/TOT	0	0	18	2	2	0	0	22	23	0	0	15	2	0	0	0	17	17	0	0	43	11	1	3	0	58	62.4	0	0	2	0	0	0	0	2	2
11:00	0	0	4	0	0	0	0	4	4	0	0	4	0	0	0	0	4	4	0	0	12	2	0	1	0	15	16.3	0	0	0	0	0	0	0	0	0
11:15	0	0	6	1	0	0	0	7	7	0	0	1	0	0	0	0	1	1	0	0	8	1	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0
11:30	0	0	8	0	0	0	0	8	8	0	0	2	0	0	0	0	2	2	0	0	7	2	2	0	0	11	12	0	0	0	0	0	0	0	0	0
11:45	0	0	14	1	0	0	0	15	15	0	0	2	0	0	0	0	2	2	0	0	12	3	1	1	0	17	18.8	0	0	0	0	0	0	0	0	0
H/TOT	0	0	32	2	0	0	0	34	34	0	0	9	0	0	0	0	9	9	0	0	39	8	4	2	0	53	57.6	0	0	0	0	0	0	0	0	0
12:00	0	0	4	0	0	0	0	4	4	0	0	2	2	0	0	0	4	4	0	0	15	2	1	0	0	18	18.5	0	0	0	0	0	0	0	0	0
12:15	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	9	5	3	0	0	17	18.5	0	0	0	0	0	0	0	0	0
12:30	0	0	10	0	0	0	0	10	10	0	0	1	0	0	0	0	1	1	0	0	9	5	0	0	0	14	14	0	0	2	0	0	0	0	2	2
12:45	0	0	13	0	1	0	0	14	14.5	0	0	1	1	1	0	0	3	3.5	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
H/TOT	0	0	29	0	1	0	0	30	30.5	0	0	6	3	1	0	0	10	10.5	0	0	44	13	4	0	0	61	63	0	0	2	0	0	0	0	2	2
13:00	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0	0	22	4	1	1	0	28	29.8	0	0	0	0	0	0	0	0	0
13:15	0	0	6	0	0	0	0	6	6	0	0	5	0	0	0	0	5	5	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0
13:30	0	0	6	0	0	0	0	6	6	0	0	3	0	0	0	0	3	3	0	0	13	5	0	0	0	18	18	0	0	0	0	0	0	0	0	0
13:45	0	0	7	0	0	0	0	7	7	0	0	3	0	0	0	0	3	3	1	0	19	1	0	0	0	21	20.2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	26	0	0	0	0	26	26	0	0	13	0	0	0	0	13	13	1	0	72	11	1	1	0	86	87	0	0	0	0	0	0	0	0	0
14:00	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
14:15	0	0	7	0	0	0	0	7	7	0	0	3	0	0	0	0	3	3	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
14:30	0	0	11	0	0	0	0	11	11	0	0	1	0	0	0	0	1	1	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
14:45	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	10	1	0	1	0	12	13.3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	29	0	0	0	0	29	29	0	0	5	0	0	0	0	5	5	0	0	47	2	0	1	0	50	51.3	0	0	0	0	0	0	0	0	0
15:00	0	0	9	0	0	0	0	9	9	0	0	1	1	0	0	0	2	2	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
15:15	0	0	6	0	0	0	0	6	6	0	0	1	0	0	0	0	1	1	0	0	12	0	0	0	0	12	12	0	0	1	0	0	0	0	1	1
15:30	1	0	8	2	0	0	0	11	10.2	0	0	0	1	0	0	0	1	1	0	0	10	0	0	0	0	10	10	0	0	1	0	0	0	0	1	1
15:45	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	0	9	9	0	0	2	0	0	0	0	2	2
H/TOT	1	0	27	2	0	0	0	30	29.2	0	0	3	2	0	0	0	5	5	0	0	38	1	0	0	0	39	39	0	0	4	0	0	0	0	4	4
16:00	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
16:15	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	1	0	0	0	0	1	1
16:30	1	0	7	1	0	0	0	9	8.2	0	0	1	0	0	0	0	1	1	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0
16:45	0	0	11	0	0	0	0	11	11	0	0	1	0	0	0	0	1	1	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0
H/TOT	1	0	37	2	0	0	0	40	39.2	0	0	2	0	0	0	0	2	2	0	0	21	1	0	1	0	23	24.3	0	0	1	0	0	0	0	1	1
17:00	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0
17:15	0	0	8	0	0	0	0	8	8	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
17:30	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
17:45	1	0	3	0	0	0	0	4	3.2	0	0	3	0	0	0	0	3	3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	1	0	29	1	0	0	0	31	30.2	0	0	4	0	0	0	0	4	4	0	0	26	2	1	0	0	29	29.5	0	0	0	0	0	0	0	0	0
18:00	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
18:15	0	1	4	1	0	0	0	6	5.4	0	0	1	1	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
18:30	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
18:45	0	0	7	0	0	0	0	7	7	0	0	3	0	0	0	0	3	3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
H/TOT	0	1	20	1	0	0	0	22	21.4	0	0	5	1	0	0	0	6	6	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
12 TOT	5	2	353	14	3	0	0	377	373.3	0	0	136	12	2	0	0	150	151	3	1	613	73	13	11	0	714	731.8	0	0	10	0	0	0	0	10	10



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 2
Location: Skehard Road / Bessboro Road
Date: Fri 03-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Bessboro Rd
Arm C - R852 Skehard Rd West

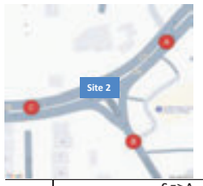
	A => A									A => B									A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	0	33	9	1	0	4	47	51.5
07:15	0	0	0	0	0	0	0	0	0	0	0	21	5	0	0	0	26	26	0	1	51	7	1	0	2	62	63.9
07:30	0	0	0	0	0	0	0	0	0	0	0	15	3	0	1	0	19	20.3	0	0	52	12	2	1	2	69	73.3
07:45	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	2	0	70	15	1	0	3	91	92.9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	68	11	0	1	0	80	81.3	2	1	206	43	5	1	11	269	281.6
08:00	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	29	29	0	1	99	10	1	0	3	114	116.9
08:15	0	0	0	0	0	0	0	0	0	1	0	38	3	0	0	0	42	41.2	0	0	131	7	2	0	2	142	145
08:30	0	0	0	0	0	0	0	0	0	2	0	37	4	1	0	0	44	42.9	1	0	115	10	3	0	2	131	133.7
08:45	0	0	0	0	0	0	0	0	0	1	0	43	4	0	1	0	49	49.5	0	1	102	10	2	0	2	117	119.4
H/TOT	0	0	0	0	0	0	0	0	0	4	0	146	12	1	1	0	164	162.6	1	2	447	37	8	0	9	504	515
09:00	0	0	0	0	0	0	0	0	0	0	0	31	3	2	0	0	36	37	0	1	87	8	1	0	3	100	102.9
09:15	0	0	0	0	0	0	0	0	0	0	0	22	5	0	0	0	27	27	1	0	80	13	0	0	4	98	101.2
09:30	0	0	0	0	0	0	0	0	0	0	0	27	4	0	0	0	31	31	1	0	69	10	2	0	1	83	84.2
09:45	0	0	0	0	0	0	0	0	0	0	0	25	4	0	1	0	30	31.3	0	0	77	11	0	0	3	91	94
H/TOT	0	0	0	0	0	0	0	0	0	0	0	105	16	2	1	0	124	126.3	2	1	313	42	3	0	11	372	382.3
10:00	0	0	0	0	0	0	0	0	0	0	0	18	2	1	1	0	22	23.8	0	0	75	8	0	0	3	86	89
10:15	0	0	0	0	0	0	0	0	0	0	0	21	3	1	1	0	26	27.8	0	0	74	8	4	0	1	87	90
10:30	0	0	0	0	0	0	0	0	0	0	0	18	5	0	1	0	24	25.3	1	0	86	12	0	0	3	102	104.2
10:45	0	0	0	0	0	0	0	0	0	0	0	16	1	1	0	0	18	18.5	0	0	78	8	4	0	3	93	98
H/TOT	0	0	0	0	0	0	0	0	0	0	0	73	11	3	3	0	90	95.4	1	0	313	36	8	0	10	368	381.2
11:00	0	0	0	0	0	0	0	0	0	0	0	11	0	0	1	0	12	13.3	1	0	101	9	3	0	3	117	120.7
11:15	0	0	0	0	0	0	0	0	0	0	0	13	2	1	0	0	16	16.5	0	0	79	8	1	1	2	91	94.8
11:30	0	0	0	0	0	0	0	0	0	0	0	13	3	1	0	0	17	17.5	0	1	105	11	4	0	2	123	126.4
11:45	0	0	0	0	0	0	0	0	0	1	0	18	3	0	1	0	23	23.5	1	0	99	6	2	0	2	110	112.2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	55	8	2	2	0	68	70.8	2	1	384	34	10	1	9	441	454.1
12:00	0	0	0	0	0	0	0	0	0	0	0	15	5	1	0	0	21	21.5	1	0	88	16	0	0	2	107	108.2
12:15	0	0	0	0	0	0	0	0	0	0	0	16	2	2	0	0	20	21	0	1	96	9	4	1	3	114	119.7
12:30	0	0	0	0	0	0	0	0	0	0	1	20	4	0	0	0	25	24.4	0	0	95	6	1	0	3	105	108.5
12:45	0	0	0	0	0	0	0	0	0	0	0	20	1	2	0	0	23	24	1	0	115	13	1	0	3	133	135.7
H/TOT	0	0	0	0	0	0	0	0	0	0	1	71	12	5	0	0	89	90.9	2	1	394	44	6	1	11	459	472.1
13:00	0	0	0	0	0	0	0	0	0	0	0	25	4	0	1	0	30	31.3	0	0	92	11	0	0	3	106	109
13:15	0	0	0	0	0	0	0	0	0	0	0	28	1	1	0	0	30	30.5	0	1	112	6	0	0	2	121	122.4
13:30	0	0	0	0	0	0	0	0	0	0	0	15	3	0	0	0	18	18	0	1	93	7	3	1	1	106	109.2
13:45	0	0	0	0	0	0	0	0	0	1	0	24	1	0	0	0	26	25.2	0	0	123	10	1	0	4	138	142.5
H/TOT	0	0	0	0	0	0	0	0	0	1	0	92	9	1	1	0	104	105	0	2	420	34	4	1	10	471	483.1
14:00	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19	0	1	93	7	1	1	2	105	108.2
14:15	0	0	0	0	0	0	0	0	0	0	0	21	2	0	0	0	23	23	0	1	123	5	0	1	3	133	136.7
14:30	0	0	0	0	0	0	0	0	0	0	0	20	2	0	0	0	22	22	0	0	95	9	5	0	3	112	117.5
14:45	0	0	0	0	0	0	0	0	0	0	0	20	1	1	0	0	22	22.5	0	0	134	4	0	0	3	141	144
H/TOT	0	0	0	0	0	0	0	0	0	0	0	78	7	1	0	0	86	86.5	0	2	445	25	6	2	11	491	506.4
15:00	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17	0	1	123	8	3	0	4	139	143.9
15:15	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20	0	0	137	11	3	0	1	152	154.5
15:30	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20	0	1	109	7	0	0	2	119	120.4
15:45	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	9	9	0	1	110	5	2	0	4	122	126.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	62	4	0	0	0	66	66	0	3	479	31	8	0	11	532	545.2
16:00	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15	1	0	105	7	3	0	3	119	122.7
16:15	0	0	0	0	0	0	0	0	0	0	0	20	0	1	0	0	21	21.5	4	0	100	7	0	0	1	112	109.8
16:30	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	9	8.2	1	0	132	6	0	0	5	144	148.2
16:45	0	0	0	0	0	0	0	0	0	0	0	23	1	0	0	0	24	24	3	0	144	6	0	1	2	156	156.9
H/TOT	0	0	0	0	0	0	0	0	0	1	0	65	2	1	0	0	69	68.7	9	0	481	26	3	1	11	531	537.6
17:00	0	0	0	0	0	0	0	0	0	1	0	13	0	1	0	0	15	14.7	1	1	120	10	0	0	2	134	134.6
17:15	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	2	0	156	4	0	0	4	166	168.4
17:30	0	0	0	0	0	0	0	0	0	0	1	12	2	0	0	0	15	14.4	4	2	168	7	0	0	2	183	180.6
17:45	0	0	0	0	0	0	0	0	0	1	0	14	0	0	0	0	15	14.2	1	1	122	6	2	0	2	134	135.6
H/TOT	0	0	0	0	0	0	0	0	0	2	1	55	3	1	0	0	62	60.3	8	4	566	27	2	0	10	617	619.2
18:00	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	1	117	1	0	0	4	123	126.4
18:15	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	11	11.5	1	1	111	5	0	0	2	120	120.6
18:30	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	5	113	10	0	0	2	130	129
18:45	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	4	0	113	6	0	0	5	128	129.8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	36	1	1	0	0	38	38.5	5	7	454	22	0	0	13	501	505.8
12 TOT	0	0	0	0	0	0	0	0	0	9	2	906	96	18	9	0	1040	1052.3	32	24	4902	401	63	7	127	5556	5683.6

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 2
Location: Skehard Road / Bessboro Road
Date: Fri 03-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Bessboro Rd
Arm C - R852 Skehard Rd West

	B => A									B => B									B => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	7	7.5
07:15	0	0	6	1	2	0	0	9	10	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5
07:30	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13
07:45	1	0	14	0	0	1	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	22	22
H/TOT	1	0	46	2	2	1	0	52	53.5	0	0	0	0	0	0	0	0	0	0	0	38	8	2	0	0	48	49
08:00	0	0	25	1	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	35	35
08:15	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	43	43
08:30	0	0	17	2	0	0	0	19	19	0	0	0	0	0	0	0	0	0	2	1	32	2	0	0	0	37	34.8
08:45	0	0	24	3	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	32	4	0	0	0	36	36
H/TOT	0	0	89	8	0	0	0	97	97	0	0	0	0	0	0	0	0	0	2	1	142	6	0	0	0	151	148.8
09:00	0	0	25	1	1	1	0	28	29.8	0	0	0	0	0	0	0	0	0	0	0	25	1	2	0	0	28	29
09:15	0	0	6	2	3	0	0	11	12.5	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
09:30	0	0	20	2	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	18	5	0	0	0	23	23
09:45	0	0	12	2	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0	16	5	1	0	0	22	22.5
H/TOT	0	0	63	7	5	1	0	76	79.8	0	0	0	0	0	0	0	0	0	0	0	76	11	3	0	0	90	91.5
10:00	0	0	19	2	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
10:15	0	0	16	5	0	1	0	22	23.3	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
10:30	0	0	15	4	1	0	0	20	20.5	0	0	0	0	0	0	0	0	0	0	0	20	2	1	0	0	23	23.5
10:45	1	0	11	5	0	1	0	18	18.5	0	0	0	0	0	0	0	0	0	0	0	16	5	1	0	0	22	22.5
H/TOT	1	0	61	16	2	2	0	82	84.8	0	0	0	0	0	0	0	0	0	0	0	62	8	2	0	0	72	73
11:00	0	0	13	4	1	1	0	19	20.8	0	0	0	0	0	0	0	0	0	0	0	13	4	0	0	0	17	17
11:15	1	0	15	0	1	1	0	18	19	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	21	21
11:30	0	0	16	6	1	1	0	24	25.8	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13
11:45	0	0	17	4	2	0	0	23	24	0	0	0	0	0	0	0	0	0	0	0	14	4	1	0	0	19	19.5
H/TOT	1	0	61	14	5	3	0	84	89.6	0	0	0	0	0	0	0	0	0	0	0	56	13	1	0	0	70	70.5
12:00	0	0	22	3	2	0	0	27	28	0	0	0	0	0	0	0	0	0	0	0	21	2	0	0	0	23	23
12:15	0	0	21	5	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	22	2	0	0	0	24	24
12:30	0	1	32	3	4	1	0	41	43.7	0	0	0	0	0	0	0	0	0	0	0	23	2	0	0	0	25	25
12:45	0	0	32	3	1	0	0	36	36.5	0	0	0	0	0	0	0	0	0	0	0	24	1	1	0	0	26	26.5
H/TOT	0	1	107	14	7	1	0	130	134.2	0	0	0	0	0	0	0	0	0	0	0	90	7	1	0	0	98	98.5
13:00	0	0	54	1	0	0	0	55	55	0	0	0	0	0	0	0	0	0	0	0	43	1	0	0	0	44	44
13:15	0	0	32	3	1	1	0	37	38.8	0	0	0	0	0	0	0	0	0	1	0	26	1	0	0	0	28	27.2
13:30	0	0	33	5	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	1	26	1	1	0	0	29	28.9
13:45	0	0	32	4	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0	0	16	0	1	0	0	17	17.5
H/TOT	0	0	151	13	1	1	0	166	167.8	0	0	0	0	0	0	0	0	0	1	1	111	3	2	0	0	118	117.6
14:00	0	0	33	2	1	0	0	36	36.5	0	0	0	0	0	0	0	0	0	0	0	29	5	0	0	0	34	34
14:15	0	0	23	6	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	23	1	0	0	0	24	24
14:30	0	0	34	1	0	0	0	35	35	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
14:45	0	0	33	1	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	23	1	0	0	0	24	24
H/TOT	0	0	123	10	1	0	0	134	134.5	0	0	0	0	0	0	0	0	0	0	0	88	8	0	0	0	96	96
15:00	0	0	26	5	0	1	0	32	33.3	0	0	0	0	0	0	0	0	0	0	1	22	0	0	0	0	23	22.4
15:15	0	0	33	3	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0	0	23	1	1	0	0	25	25.5
15:30	0	0	70	3	0	0	0	73	73	0	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	48	48
15:45	0	0	36	2	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	23	23
H/TOT	0	0	165	13	0	1	0	179	180.3	0	0	0	0	0	0	0	0	0	0	1	116	1	1	0	0	119	118.9
16:00	0	0	35	3	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34
16:15	0	0	37	1	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	25	1	0	0	0	26	26
16:30	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	23	2	1	0	0	26	26.5
16:45	0	0	26	3	0	1	0	30	31.3	0	0	0	0	0	0	0	0	0	1	0	27	0	0	0	0	28	27.2
H/TOT	0	0	119	7	0	1	0	127	128.3	0	0	0	0	0	0	0	0	0	1	0	108	4	1	0	0	114	113.7
17:00	2	0	38	1	0	0	0	41	39.4	0	0	0	0	0	0	0	0	0	0	0	34	1	0	0	0	35	35
17:15	0	0	27	2	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	25
17:30	0	0	30	1	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
17:45	0	0	21	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	1	13	0	0	0	0	14	13.4
H/TOT	2	0	116	5	0	0	0	123	121.4	0	0	0	0	0	0	0	0	0	0	1	92	1	0	0	0	94	93.4
18:00	0	0	27	3	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
18:15	0	0	13	0	2	0	0	15	16	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0	0	12	10.8
18:30	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
18:45	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	15	1	2	0	0	18	19
H/TOT	0	0	61	5	2	0	0	68	69	0	0	0	0	0	0	0	0	0	0	2	51	3	2	0	0	58	57.8
12 TOT	5	1	1162	114	25	11	0	1318	1340.2	0	0	0	0	0	0	0	0	0	4	6	1030	73	15	0	0	1128	1128.7



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 2
Location: Skehard Road / Bessboro Road
Date: Fri 03-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Bessboro Rd
Arm C - R852 Skehard Rd West

	C => A									C => B									C => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	38	9	3	1	1	52	55.8	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
07:15	1	0	39	10	2	0	3	55	58.2	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
07:30	3	3	81	11	5	0	3	106	107.3	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
07:45	4	1	92	8	1	0	2	108	106.7	1	0	30	2	0	0	0	33	32.2	0	0	0	0	0	0	0	0	0
H/TOT	8	4	250	38	11	1	9	321	328	1	0	64	4	0	0	0	69	68.2	0	0	0	0	0	0	0	0	0
08:00	5	0	87	8	0	0	3	103	102	1	0	28	0	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0
08:15	2	0	80	7	2	0	1	92	92.4	1	1	28	0	0	0	0	30	28.6	0	0	0	0	0	0	0	0	0
08:30	2	1	136	8	1	1	2	151	152.6	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
08:45	0	1	121	6	1	0	4	133	136.9	0	0	40	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0
H/TOT	9	2	424	29	4	1	10	479	483.9	2	1	116	0	0	0	0	119	116.8	0	0	0	0	0	0	0	0	0
09:00	1	0	109	14	0	0	4	128	131.2	0	0	41	2	1	0	0	44	44.5	0	0	0	0	0	0	0	0	0
09:15	0	0	126	4	2	0	1	133	135	1	0	19	3	0	0	0	23	22.2	0	0	0	0	0	0	0	0	0
09:30	1	0	93	6	2	0	5	107	112.2	0	1	11	0	0	0	0	12	11.4	0	0	0	0	0	0	0	0	0
09:45	0	0	96	10	3	0	3	112	116.5	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0
H/TOT	2	0	424	34	7	0	13	480	494.9	1	1	89	7	1	0	0	99	98.1	0	0	0	0	0	0	0	0	0
10:00	1	0	74	13	2	0	1	91	92.2	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0
10:15	0	0	90	10	1	0	3	104	107.5	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
10:30	0	0	98	12	2	0	3	115	119	0	0	14	1	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0
10:45	2	0	113	16	1	1	1	134	135.2	0	0	10	5	0	0	0	15	15	0	0	0	0	0	0	0	0	0
H/TOT	3	0	375	51	6	1	8	444	453.9	0	0	57	7	1	0	0	65	65.5	0	0	0	0	0	0	0	0	0
11:00	1	0	94	8	3	0	4	110	114.7	0	0	11	3	0	0	0	14	14	0	0	0	0	0	0	0	0	0
11:15	0	1	101	12	0	0	1	115	115.4	1	0	9	0	1	0	0	11	10.7	0	0	0	0	0	0	0	0	0
11:30	2	0	95	9	0	0	1	107	106.4	0	0	12	1	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0
11:45	0	0	106	13	2	0	3	124	128	0	0	21	2	2	0	0	25	26	0	0	0	0	0	0	0	0	0
H/TOT	3	1	396	42	5	0	9	456	464.5	1	0	53	6	4	0	0	64	65.2	0	0	0	0	0	0	0	0	0
12:00	0	0	116	9	0	0	3	128	131	1	0	15	1	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0
12:15	2	1	109	6	3	1	3	125	128.6	0	0	10	1	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0
12:30	0	0	101	15	1	2	2	121	126.1	0	0	20	3	0	0	0	23	23	0	0	0	0	0	0	0	0	0
12:45	1	0	99	11	1	0	3	115	117.7	0	0	18	2	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0
H/TOT	3	1	425	41	5	3	11	489	503.4	1	0	63	7	2	0	0	73	73.2	0	0	0	0	0	0	0	0	0
13:00	1	1	104	6	1	0	3	116	118.1	1	0	19	1	1	0	0	22	21.7	0	0	0	0	0	0	0	0	0
13:15	2	0	102	5	2	1	1	113	114.7	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0
13:30	1	1	119	16	0	0	3	140	141.6	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0
13:45	0	1	111	14	1	0	2	129	130.9	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
H/TOT	4	3	436	41	4	1	9	498	505.3	1	0	73	6	1	0	0	81	80.7	0	0	0	0	0	0	0	0	0
14:00	1	1	116	6	1	0	4	129	132.1	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
14:15	0	1	115	5	5	0	3	129	133.9	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
14:30	1	0	135	12	0	0	2	150	151.2	0	0	39	0	0	0	0	39	39	0	0	0	0	0	0	0	0	0
14:45	1	1	159	11	1	3	3	179	185	0	0	19	2	0	1	0	22	23.3	0	0	0	0	0	0	0	0	0
H/TOT	3	3	525	34	7	3	12	587	602.2	0	0	88	4	0	1	0	93	94.3	0	0	0	0	0	0	0	0	0
15:00	0	0	119	10	1	0	2	132	134.5	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
15:15	0	0	129	15	2	1	2	149	153.3	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
15:30	0	0	108	7	2	0	4	121	126	1	1	9	0	0	0	0	11	9.6	0	0	0	0	0	0	0	0	0
15:45	1	0	141	9	0	0	1	152	152.2	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	1	0	497	41	5	1	9	554	566	1	1	44	1	0	0	0	47	45.6	0	0	0	0	0	0	0	0	0
16:00	2	1	163	8	0	0	2	176	175.8	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
16:15	0	2	125	15	1	0	3	146	148.3	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0
16:30	2	0	148	6	1	0	2	159	159.9	0	0	17	1	0	1	0	19	20.3	0	0	0	0	0	0	0	0	0
16:45	0	0	123	9	0	0	4	136	140	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0
H/TOT	4	3	559	38	2	0	11	617	624	0	0	69	3	0	1	0	73	74.3	0	0	0	0	0	0	0	0	0
17:00	1	0	124	9	1	0	3	138	140.7	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0
17:15	0	0	104	9	1	0	3	117	120.5	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
17:30	2	1	111	6	0	0	3	123	123.8	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
17:45	2	0	92	5	0	0	4	103	105.4	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
H/TOT	5	1	431	29	2	0	13	481	490.4	0	0	41	3	0	0	0	44	44	0	0	0	0	0	0	0	0	0
18:00	0	1	99	7	0	0	3	110	112.4	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0
18:15	1	1	111	7	0	0	3	123	124.6	0	1	7	2	0	0	0	10	9.4	0	0	1	0	0	0	0	1	1
18:30	0	1	105	8	0	0	3	117	119.4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
18:45	2	4	100	6	0	0	2	114	112	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
H/TOT	3	7	415	28	0	0	11	464	468.4	0	1	31	4	0	0	0	36	35.4	0	0	1	0	0	0	0	1	1
12 TOT	48	25	5157	446	58	11	125	5870	5984.9	8	4	788	52	9	2	0	863	861.3	0	0	1	0	0	0	0	1	1

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Fri 03-Oct-2025

Arm A - R853 Skehard Rd East
Arm B - Access Road Shops
Arm C - R853 Skehard Rd West
Arm D - R853 Church Rd

	A => A									A => B									A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	6	1	0	2	40	42.5
07:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	1	32	4	1	0	1	39	39.9
07:30	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	4	0	0	37	9	1	1	1	49	51.8
07:45	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	4.5	2	0	67	8	3	0	0	80	77.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	3	2	0	0	13	11.5	2	0	167	27	6	1	4	207	211.6
08:00	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	91	8	3	0	0	102	103
08:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	130	6	3	0	0	139	140.5
08:30	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	1	123	9	0	0	1	134	134.8
08:45	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	1	80	10	2	0	1	94	95.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	33	3	0	0	0	36	36	2	2	424	33	5	0	4	470	473.7
09:00	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	1	85	5	2	0	2	95	97.4
09:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	1	63	7	0	0	2	73	74.2
09:30	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20	0	0	52	13	1	0	0	67	66.7
09:45	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	67	13	1	0	2	83	85.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	54	2	0	0	0	56	56	2	1	267	38	4	0	6	318	323.8
10:00	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	12	12	0	0	54	2	0	0	1	57	58
10:15	0	0	0	0	0	0	0	0	0	0	0	20	2	0	0	0	22	22	0	0	72	3	0	0	0	75	75
10:30	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	0	0	81	5	0	0	0	86	85.5
10:45	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18	0	0	66	5	0	0	0	71	69.5
H/TOT	0	0	0	0	0	0	0	0	0	1	0	61	8	0	0	0	70	69.2	0	0	243	18	10	0	5	276	286
11:00	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	16	15.2	0	0	73	7	2	0	1	83	85
11:15	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22	0	0	56	6	1	0	1	64	66
11:30	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19	0	0	71	6	1	0	1	80	80.9
11:45	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	0	22	22	0	0	71	9	1	0	1	83	83.7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	73	5	0	0	0	79	78.2	1	1	271	28	4	0	5	310	315.6
12:00	0	0	0	0	0	0	0	0	0	0	0	13	5	0	0	0	18	18	0	0	71	12	0	0	1	85	85.2
12:15	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19	0	0	71	6	4	0	1	84	87.4
12:30	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	63	6	1	0	0	71	72.5
12:45	0	0	0	0	0	0	0	0	0	0	0	26	3	0	0	0	29	29	1	0	86	6	0	0	0	93	94
H/TOT	0	0	0	0	0	0	0	0	0	0	0	74	10	0	0	0	84	84	2	1	291	30	5	0	5	334	339.3
13:00	0	0	0	0	0	0	0	0	0	0	0	26	2	0	0	0	28	28	0	0	82	8	1	0	2	93	93.5
13:15	0	0	0	0	0	0	0	0	0	0	0	27	2	0	0	0	29	29	0	1	92	8	1	0	1	93	93.4
13:30	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21	0	0	73	6	3	1	0	85	86.6
13:45	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	83	5	0	0	2	90	92
H/TOT	0	0	0	0	0	0	0	0	0	0	0	85	5	0	0	0	90	90	0	3	327	21	4	1	5	361	367.5
14:00	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	1	85	10	1	0	1	98	98.9
14:15	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19	0	0	106	3	0	2	2	114	118
14:30	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	61	8	0	0	2	70	70.5
14:45	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	25	0	0	101	3	1	0	2	107	109.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	72	2	0	0	0	74	74	0	2	353	24	3	2	5	389	396.9
15:00	0	0	0	0	0	0	0	0	0	0	0	20	1	1	0	0	22	22.5	0	2	89	4	2	0	2	99	100.8
15:15	0	0	0	0	0	0	0	0	0	0	0	16	3	1	0	0	20	19	0	0	107	3	0	0	1	111	111.5
15:30	0	0	0	0	0	0	0	0	0	0	0	15	1	1	0	0	17	17.5	0	0	118	5	0	0	1	124	125
15:45	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15	0	0	100	3	2	0	2	107	111
H/TOT	0	0	0	0	0	0	0	0	0	0	0	65	6	2	0	0	73	74	0	2	414	15	4	0	6	441	447.3
16:00	0	0	0	0	0	0	0	0	0	0	0	15	3	0	0	0	18	18	0	0	52	5	1	0	1	59	60.1
16:15	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20	0	0	85	5	0	0	1	91	93.1
16:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	30	2	0	0	1	33	32.6
16:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	125	4	0	0	0	129	132
H/TOT	0	0	0	0	0	0	0	0	0	0	0	54	4	0	0	0	58	58	0	0	365	21	2	0	5	403	401.2
17:00	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	1	119	8	0	0	0	129	129.2
17:15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	2	136	5	0	0	1	144	143.4
17:30	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	3	134	7	0	0	2	146	145.6
17:45	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	11	11.5	1	1	98	6	1	0	0	107	106.1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	38	0	1	0	0	39	39.5	2	6	467	26	1	0	4	526	524.3
18:00	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19	0	1	84	1	0	0	3	89	91.4
18:15	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	75	5	0	0	0	80	81.2
18:30	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	1	1	80	7	0	0	0	89	91.2
18:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	1	5	100	7	0	0	0	113	114.6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	49	49	4	9	339	19	2	0	7	380	379.4
12 TOT	0	0	0	0	0	0	0	0	0	2	0	666	48	5	0	0	721	721.9	29	24	3949	300	48	4	61	5015	5067.4

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Fri 03-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

	B => A									B => B									B => C									B => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	1	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
07:15	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3.3	0	0	2	0	0	0	0	2	2
07:30	0	0	1	2	3	0	0	6	7.5	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	4	5.3	0	0	2	0	0	0	0	2	2
07:45	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	7	7.5	0	0	2	0	2	0	0	4	5
H/TOT	0	0	5	4	3	1	0	13	15.8	0	0	0	0	0	0	0	0	0	0	0	8	3	2	2	0	15	18.6	0	0	6	0	2	0	0	8	9
08:00	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	2	1	0	0	0	3	3
08:15	0	1	10	0	0	0	0	11	10.4	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	2	0	0	0	0	2	2
08:30	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	5	0	0	0	0	5	5
08:45	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	1	0	5	0	0	0	0	6	5.2
H/TOT	0	1	28	2	0	0	0	31	30.4	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17	1	0	14	1	0	0	0	16	15.2
09:00	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	8	0	0	0	0	8	8
09:15	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	2	2	0	0	0	4	4
09:30	1	0	8	0	0	0	0	9	8.2	0	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	6	6.5	0	0	7	0	0	0	0	7	7
09:45	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9	0	0	12	0	0	0	0	12	12
H/TOT	1	0	55	2	0	0	0	58	57.2	0	0	0	0	0	0	0	0	0	0	0	25	3	1	0	0	29	29.5	0	0	29	2	0	0	0	31	31
10:00	0	0	12	3	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	8	0	0	0	0	8	8
10:15	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	6	2	0	0	0	8	8
10:30	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	7	1	1	0	0	9	9.5
10:45	1	0	17	3	0	0	0	21	20.2	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	10	2	0	0	0	12	12
H/TOT	1	0	50	7	1	0	0	59	58.7	0	0	0	0	0	0	0	0	0	0	0	28	2	0	0	0	30	30	0	0	31	5	1	0	0	37	37.5
11:00	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	20	20	0	0	9	0	0	0	0	9	9
11:15	0	0	23	1	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	10	0	0	0	0	10	10
11:30	0	0	12	2	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	15	0	0	5	0	0	0	0	5	5
11:45	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15	0	0	5	1	0	0	0	6	6
H/TOT	0	0	63	4	0	0	0	67	67	0	0	0	0	0	0	0	0	0	0	0	52	7	0	0	0	59	59	0	0	29	1	0	0	0	30	30
12:00	1	0	15	1	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	15	0	0	10	1	0	0	0	11	11
12:15	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	1	0	11	0	0	0	0	12	11.2
12:30	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	12	3	0	0	0	15	15
12:45	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	0	22	22	0	0	12	0	0	0	0	12	12
H/TOT	1	0	64	4	0	0	0	69	68.2	0	0	0	0	0	0	0	0	0	0	0	58	5	0	0	0	63	63	1	0	45	4	0	0	0	50	49.2
13:00	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0	18	1	0	0	0	19	19
13:15	0	0	15	3	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	4	0	0	0	0	4	4
13:30	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15	0	0	16	1	0	0	0	17	17
13:45	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	16	16	0	0	6	0	0	0	0	6	6
H/TOT	0	0	76	4	0	0	0	80	80	0	0	0	0	0	0	0	0	0	0	0	52	4	0	0	0	56	56	0	0	44	2	0	0	0	46	46
14:00	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	8	1	0	0	0	9	9
14:15	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	12	1	0	0	0	13	13
14:30	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	5	0	0	0	0	5	5
14:45	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	8	0	0	0	0	8	8
H/TOT	0	0	71	3	0	0	0	74	74	0	0	0	0	0	0	0	0	0	0	0	38	2	0	0	0	40	40	0	0	33	2	0	0	0	35	35
15:00	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	13	0	0	0	0	13	13
15:15	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	13	2	1	0	0	16	16.5	0	0	8	2	0	0	0	10	10
15:30	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	11	0	1	0	0	12	12.5
15:45	0	0	10	3	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	12	0	0	0	0	12	12
H/TOT	0	0	59	5	0	0	0	64	64	0	0	0	0	0	0	0	0	0	0	0	40	4	1	0	0	45	45.5	0	0	44	2	1	0	0	47	47.5
16:00	2	0	16	1	0	0	0	19	17.4	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16	2	0	16	1	0	0	0	19	17.4
16:15	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	8	0	0	0	0	8	8
16:30	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0	8	0	0	0	0	8	8
16:45	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	11	0	0	0	0	11	11
H/TOT	2	0	56	5	0	0	0	63	61.4	0	0	0	0	0	0	0	0	0	0	0	49	4	0	0	0	53	53	2	0	43	1	0	0	0	46	44.4
17:00	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	10	0	0	0	0	10	10
17:15	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	7	0	0	0	0	7	7
17:30	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	7	0	0	0	0	7	7
17:45	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13.5	0	0	9	0	0	0	0	9	9
H/TOT	0	0	42	0	0	0	0	42	42	0	0	0	0	0	0	0	0	0	0	0	45	2	1	0	0	48	48.5	0	0	33	0	0	0	0	33	33
18:00	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	0	0	10	1	0	0	0	11	11
18:15	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	11	0	0	0	0	11	11
18:30	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	1	0	15	1	0	0	0	17	16.2
18:45	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	10	0	0	0	0	10	10
H/TOT	0	0	51	3	0	0	0	54	54	0	0	0	0	0	0	0	0	0	0	0	51	1	0	0	0	52	52	1	0	46	2	0	0	0	49	48.2
12 TOT	5	1	620	43	4	1	0	674	672.7	0	0	0	0	0	0	0	0	0	0	0	461	39	5	2	0	507	512.1	5	0	397	22	4	0	0	428	426

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Fri 03-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

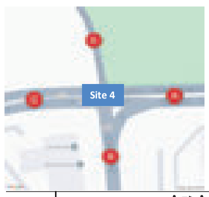
	C => A									C => B									C => C									C => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	29	5	2	0	0	36	37	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
07:15	1	0	36	8	2	0	1	48	49.2	0	0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	8.5
07:30	2	2	72	8	2	0	1	87	86.2	0	0	3	1	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
07:45	5	1	87	10	0	0	2	105	102.4	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	13	6	0	0	0	19	19
H/TOT	8	3	224	31	6	0	4	276	274.8	0	0	15	2	3	0	0	20	21.5	0	0	0	0	0	0	0	0	0	0	0	35	6	1	0	0	42	42.5
08:00	7	0	84	6	0	0	2	99	95.4	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0	0	0	29	3	0	0	0	32	32
08:15	2	0	67	6	1	0	1	77	76.9	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27
08:30	2	1	122	6	1	1	0	133	132.6	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	22	5	1	0	1	29	30.5
08:45	0	0	114	5	1	0	2	122	124.5	0	0	9	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
H/TOT	11	1	387	23	3	1	5	431	429.4	0	1	29	3	0	0	0	33	32.4	0	0	0	0	0	0	0	0	0	0	0	90	9	1	0	1	101	102.5
09:00	1	0	104	12	0	0	2	119	120.2	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16
09:15	1	0	84	7	2	0	1	95	96.2	0	0	12	0	2	0	0	14	15	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	20	20
09:30	0	1	76	5	1	0	1	84	84.9	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10
09:45	0	0	67	7	2	0	3	79	83	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	11	1	1	0	0	13	13.5
H/TOT	2	1	331	31	5	0	7	377	384.3	0	0	41	0	2	0	0	43	44	0	0	0	0	0	0	0	0	0	0	0	50	8	1	0	0	59	59.5
10:00	1	0	63	8	1	0	0	73	72.7	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17
10:15	0	0	62	5	1	0	1	69	70.5	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	16	16
10:30	0	0	64	10	0	0	1	75	76	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
10:45	2	0	79	13	1	1	1	97	98.2	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	15	2	0	1	0	18	19.3
H/TOT	3	0	268	36	3	1	3	314	317.4	0	0	32	2	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	62	7	0	1	0	70	71.3
11:00	1	0	80	8	3	0	3	95	98.7	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	24	2	0	0	0	26	26
11:15	1	1	63	8	1	0	0	74	73.1	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
11:30	1	0	71	7	0	0	0	79	78.2	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	20	2	0	0	0	22	22
11:45	0	0	85	11	2	0	2	100	103	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	1	0	35	1	1	0	0	38	37.7
H/TOT	3	1	299	34	6	0	5	348	353	0	0	41	4	0	0	0	45	45	0	0	0	0	0	0	0	0	0	1	0	97	6	1	0	0	105	104.7
12:00	0	0	63	8	0	0	1	72	73	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	15	1	1	0	0	17	17.5
12:15	2	1	73	3	3	1	1	84	85.6	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	22	4	0	0	0	26	26
12:30	0	0	71	9	0	1	1	82	84.3	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17
12:45	1	0	67	8	2	0	2	80	82.2	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	20	20
H/TOT	3	1	274	28	5	2	5	318	325.1	0	0	42	3	0	0	0	45	45	0	0	0	0	0	0	0	0	0	0	0	70	9	1	0	0	80	80.5
13:00	2	1	67	3	1	0	2	76	76.3	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	22	3	0	0	0	25	25
13:15	2	0	63	3	0	0	0	68	66.4	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
13:30	1	1	81	10	0	0	2	95	95.6	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	1	0	18	1	0	0	0	20	19.2
13:45	0	1	78	9	1	0	2	91	92.9	0	0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	1	29	0	0	1	0	31	31.7
H/TOT	5	3	289	25	2	0	6	330	331.2	0	0	47	3	0	0	0	50	50	0	0	0	0	0	0	0	0	0	1	1	84	4	0	1	0	91	90.9
14:00	1	1	72	5	1	0	1	81	81.1	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
14:15	0	1	97	4	3	0	1	106	107.9	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	16	16
14:30	1	0	117	10	0	1	1	130	131.5	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	1	24	25
14:45	1	1	111	4	2	3	2	124	129.5	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	15
H/TOT	3	3	397	23	6	4	5	441	450	0	0	45	1	0	0	0	46	46	0	0	0	0	0	0	0	0	0	0	0	70	4	0	0	1	75	76
15:00	0	0	91	4	1	0	1	97	98.5	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	28	5	0	0	0	33	33
15:15	0	0	96	12	2	0	0	110	111	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	17	1	0	1	0	19	20.3
15:30	1	1	96	2	1	0	3	104	106.1	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28
15:45	1	0	101	4	0	0	0	106	105.2	1	0	8	0	0	0	0	9	8.2	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	23	23
H/TOT	2	1	384	22	4	0	4	417	420.8	1	0	45	2	0	0	0	48	47.2	0	0	0	0	0	0	0	0	0	0	0	95	7	0	1	0	103	104.3
16:00	0	1	112	5	0	0	2	120	121.4	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	11	3	2	0	0	16	17
16:15	0	2	110	6	1	0	1	120	120.3	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	29	1	0	0	0	30	30
16:30	2	0	101	5	1	1	0	110	110.2	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	25	1	0	0	0	26	26
16:45	0	0	86	11	0	0	2	99	101	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	1	0	19	1	0	1	0	22	22.5
H/TOT	2	3	409	27	2	1	5	449	452.9	0	0	40	2	0	0	0	42	42	0	0	0	0	0	0	0	0	0	1	0	84	6	2	1	0	94	95.5
17:00	1	0	89	3	1	0	3	97	99.7	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	11
17:15	0	0	76	4	1	0	0	81	81.5	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	1	0	32	2	0	0	0	35	34.2
17:30	2	0	77	5	0	0	2	86	86.4	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	20	20
17:45	2	0	76	3	0	0	2	83	83.4	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	1	0	29	2	1	0	0	33	32.7
H/TOT	5	0	318	15	2	0	7	347	351	0	0	42	4	0	0	0	46	46	0	0	0	0	0	0	0	0	0	2	0	88	8	1	0	0	99	97.9
18:00	0	1	63	6	0	0	1	71	71.4	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13
18:15	1	2	80	5	0	0	1	89	88	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	24	1	0	0	0	25	25
18:30	0	1	72	5	0	0	1	79	79.4	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	1	27	2	0	0	0	30	29.4
18:45	2	2	82	3	0	0	1	90	88.2	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
H/TOT	3	6	297	19	0	0	4	329	327	0	0	45	2	0	0	0	47	47	0	0	0	0	0	0	0	0	0	0	1	85	4	0	0	0	90	89.4
12 TOT	50	23	3877	314	44	9	60	4377	4416.9	1	1	464	28	5	0	0	499	500.1	0	0	0	0	0	0	0	0	0	5	2	910	78	8	4	2	1009	1015

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Fri 03-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

	D => A									D => B									D => C									D => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	15	3	1	0	2	21	23.5	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
07:15	0	0	13	2	0	0	1	16	17	0	0	0	0	0	0	0	0	0	1	0	8	1	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0
07:30	1	1	23	1	0	0	2	28	28.6	0	0	2	0	1	0	0	3	3.5	0	1	15	1	1	0	0	18	17.9	0	0	0	0	0	0	0	0	0
07:45	0	0	33	1	1	0	1	36	37.5	0	0	3	0	0	0	0	3	3	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	1	1	84	7	2	0	6	101	106.6	0	0	6	0	1	0	0	7	7.5	1	1	46	3	1	0	0	52	51.1	0	0	0	0	0	0	0	0	0
08:00	0	0	28	2	0	0	0	30	30	0	0	2	0	0	0	0	2	2	0	0	29	2	0	0	0	31	31	0	0	0	0	0	0	0	0	0
08:15	0	0	27	1	2	0	0	30	31	0	0	2	0	0	0	0	2	2	0	0	35	2	0	0	0	37	37	0	0	0	0	0	0	0	0	0
08:30	0	0	30	1	0	0	2	33	35	0	0	3	0	0	0	0	3	3	0	0	31	3	0	0	2	36	38	0	0	0	0	0	0	0	0	0
08:45	0	1	49	1	0	0	2	53	54.4	0	0	5	0	0	0	0	5	5	0	0	20	2	1	0	0	23	23.5	0	0	0	0	0	0	0	0	0
H/TOT	0	1	134	5	2	0	4	146	150.4	0	0	12	0	0	0	0	12	12	0	0	115	9	1	0	2	127	129.5	0	0	0	0	0	0	0	0	0
09:00	0	0	33	4	1	0	2	40	42.5	0	0	7	2	0	0	0	9	9	0	0	9	2	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0
09:15	0	0	31	1	1	0	1	34	35.5	0	0	8	0	0	0	0	8	8	1	0	19	0	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0
09:30	0	0	26	3	0	0	3	32	35	0	0	6	1	0	0	0	7	7	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0
09:45	0	0	21	5	1	0	1	28	29.5	0	0	8	0	0	0	0	8	8	0	0	10	3	0	0	0	13	13	0	0	0	0	0	0	0	0	0
H/TOT	0	0	111	13	3	0	7	134	142.5	0	0	29	3	0	0	0	32	32	1	0	56	6	1	0	0	64	63.7	0	0	0	0	0	0	0	0	0
10:00	0	0	21	6	0	0	0	27	27	0	0	10	2	1	0	0	13	13.5	0	0	10	0	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0
10:15	0	0	35	1	0	0	2	38	40	0	0	7	0	0	0	0	7	7	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
10:30	0	0	27	3	3	0	2	35	38.5	0	0	15	3	0	0	0	18	18	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
10:45	0	0	27	5	0	0	0	32	32	0	0	7	0	0	0	0	7	7	0	0	13	3	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	0	0	110	15	3	0	4	132	137.5	0	0	39	5	1	0	0	45	45.5	0	0	49	5	1	0	0	55	55.5	0	0	0	0	0	0	0	0	0
11:00	0	0	20	1	0	0	1	22	23	0	0	7	0	0	0	0	7	7	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
11:15	0	0	25	3	0	0	1	29	30	0	0	7	0	0	0	0	7	7	0	0	12	1	0	1	0	14	15.3	0	0	0	0	0	0	0	0	0
11:30	0	0	20	0	1	0	2	23	25.5	0	0	6	1	0	0	0	7	7	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0
11:45	0	0	27	5	2	0	0	34	35	0	0	4	0	0	0	0	4	4	2	0	9	0	0	0	0	11	9.4	0	0	0	0	0	0	0	0	0
H/TOT	0	0	92	9	3	0	4	108	113.5	0	0	24	1	0	0	0	25	25	2	0	43	3	0	1	0	49	48.7	0	0	0	0	0	0	0	0	0
12:00	0	0	45	2	1	0	2	50	52.5	1	0	11	2	0	0	0	14	13.2	1	0	7	0	1	0	0	9	8.7	0	0	0	0	0	0	0	0	0
12:15	0	0	29	4	1	0	2	36	38.5	0	0	7	0	0	0	0	7	7	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
12:30	0	0	38	6	1	1	1	47	49.8	0	0	11	0	0	0	0	11	11	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0
12:45	0	0	24	4	0	0	1	29	30	0	0	13	1	0	0	0	14	14	0	0	14	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	0	0	136	16	3	1	6	162	170.8	1	0	42	3	0	0	0	46	45.2	1	0	41	4	1	0	0	47	46.7	0	0	0	0	0	0	0	0	0
13:00	0	0	31	0	1	0	1	33	34.5	0	0	11	0	0	0	0	11	11	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
13:15	0	0	26	3	2	1	1	33	36.3	0	0	8	2	0	0	0	10	10	0	0	17	4	0	0	0	21	21	0	0	0	0	0	0	0	0	0
13:30	0	0	45	6	0	0	1	52	53	0	0	7	0	0	0	0	7	7	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
13:45	0	0	26	4	0	0	1	31	32	0	0	10	1	0	0	0	11	11	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
H/TOT	0	0	128	13	3	1	4	149	155.8	0	0	36	3	0	0	0	39	39	0	0	50	5	0	0	0	55	55	0	0	0	0	0	0	0	0	0
14:00	0	0	43	1	1	0	2	47	49.5	0	0	7	0	0	0	0	7	7	0	1	12	1	0	0	0	14	13.4	0	0	0	0	0	0	0	0	0
14:15	0	0	30	1	1	0	2	34	36.5	1	0	9	1	0	0	0	11	10.2	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0
14:30	0	0	30	4	0	0	1	35	36	0	0	5	0	0	0	0	5	5	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
14:45	0	0	46	8	0	0	1	55	56	1	0	12	0	0	0	0	13	12.2	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
H/TOT	0	0	149	14	2	0	6	171	178	2	0	33	1	0	0	0	36	34.4	0	1	51	2	0	0	0	54	53.4	0	0	0	0	0	0	0	0	0
15:00	0	0	35	4	0	0	1	40	41	0	0	9	3	0	0	0	12	12	0	0	12	3	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0
15:15	0	0	28	5	0	1	2	36	39.3	0	0	8	0	0	0	0	8	8	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
15:30	0	0	26	2	1	0	1	30	31.5	0	0	9	0	0	0	0	9	9	0	0	10	3	0	0	0	13	13	0	0	0	0	0	0	0	0	0
15:45	0	0	40	3	0	0	1	44	45	1	0	14	2	0	0	0	17	16.2	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
H/TOT	0	0	129	14	1	1	5	150	156.8	1	0	40	5	0	0	0	46	45.2	0	0	53	6	1	0	0	60	60.5	0	0	0	0	0	0	0	0	0
16:00	0	0	42	4	0	0	1	47	48	1	0	9	0	0	0	0	10	9.2	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
16:15	0	0	30	6	0	0	1	37	38	0	0	9	1	0	0	0	10	10	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
16:30	0	0	39	1	0	0	2	42	44	0	0	8	0	0	0	0	8	8	0	0	9	1	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0
16:45	0	0	40	1	0	0	2	43	45	0	0	5	0	0	0	0	5	5	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0
H/TOT	0	0	151	12	0	0	6	169	175	1	0	31	1	0	0	0	33	32.2	0	0	45	3	1	1	0	50	51.8	0	0	0	0	0	0	0	0	0
17:00	0	0	39	5	0	0	1	45	46	0	0	12	0	0	0	0	12	12	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
17:15	0	0	30	4	0	0	2	36	38	0	0	5	1	0	0	0	6	6	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
17:30	0	1	33	3	0	0	1	38	38.4	0	0	7	0	0	0	0	7	7	0	0	21	0	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0
17:45	0	0	18	2	0	0	2	22	24	0	0	15	0	0	0	0	15	15	0	0	17	1	0	1	0	19	20.3	0	0	0	0	0	0	0	0	0
H/TOT	0	1	120	14	0	0	6	141	146.4	0	0	39	1	0	0	0	40	40	0	0	60	1	1	1	0	63	64.8	0	0	0	0	0	0	0	0	0
18:00	0	0	37	2	0	0	2	41	43	0	0	9	0	0	0	0	9	9	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
18:15	0	0	23	2	0	0	2	27	29	1	0	10	1	0	0	0	12	11.2	0	0	18	0	1	0	0	19	19.5	0	0	0	0	0	0	0	0	0
18:30	0	0	23	3	0	0	2	28	30	1	0	8	0	0	0	0	9	8.2	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
18:45	0	2	23	1	0	0	1	27	26.8	0	0	8	1	0	0	0	9	9	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0
H/TOT	0	2	106	8	0	0	7	123	128.8	2	0	35	2	0	0	0	39	37.4	0	0	75	1	1	0	0	77	77.5	0	0	0	0	0	0	0	0	0
12 TOT	1	5	1450	140	22	3	65	1686	1762.1	7	0	366	25	2	0	0	400	395.4	5	2	684	48	9	3	2	753	758.2	0	0	0	0	0	0	0	0	0

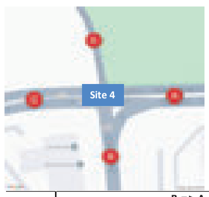


IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Fri 03-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

	A => A									A => B									A => C									A => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	19	5	1	0	0	25	25.5	0	0	9	3	0	0	2	14	16	0	0	1	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	27	7	1	0	0	35	35.5	0	0	18	0	0	0	1	19	20	0	0	1	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	25	4	0	0	0	29	29	0	0	18	2	1	0	2	23	25.5	0	0	0	0	1	0	0	1	1.5
07:45	0	0	0	0	0	0	0	0	0	0	0	25	2	0	0	0	27	27	1	0	37	1	1	0	1	41	41.7	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	96	18	2	0	0	116	117	1	0	82	6	2	0	6	97	103.2	0	0	2	0	1	0	0	3	3.5
08:00	0	0	0	0	0	0	0	0	0	0	0	33	7	0	0	0	40	40	0	0	37	4	0	0	1	42	43	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	36	5	0	0	1	42	43	0	0	62	3	0	0	2	67	69	0	0	1	0	1	0	0	2	2.5
08:30	0	0	0	0	0	0	0	0	0	0	0	34	1	0	0	0	35	35	0	0	45	2	0	0	0	47	47	0	0	2	0	0	0	0	2	2
08:45	0	0	0	0	0	0	0	0	0	0	0	56	3	1	0	0	60	60.5	1	1	65	2	1	0	2	72	73.1	0	0	7	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	159	16	1	0	1	177	178.5	1	1	209	11	1	0	5	228	232.1	0	0	10	0	1	0	0	11	11.5
09:00	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28	0	0	35	4	0	0	2	41	43	0	0	10	0	0	0	0	10	10
09:15	0	0	0	0	0	0	0	0	0	0	0	31	3	2	0	0	36	37	0	0	29	0	0	0	1	30	31	0	0	5	1	0	0	0	6	6
09:30	0	0	0	0	0	0	0	0	0	0	0	21	4	1	0	0	26	26.5	1	0	27	2	0	0	1	31	31.2	0	0	6	0	0	0	0	6	6
09:45	0	0	0	0	0	0	0	0	0	0	0	29	4	0	0	0	33	33	0	0	34	2	0	0	1	37	38	0	0	6	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	108	12	3	0	0	123	124.5	1	0	125	8	0	0	5	139	143.2	0	0	27	1	0	0	0	28	28
10:00	0	0	0	0	0	0	0	0	0	0	0	20	3	1	0	0	24	24.5	0	0	31	2	0	0	1	34	35	0	0	4	0	0	0	0	4	4
10:15	0	0	0	0	0	0	0	0	0	0	0	17	5	1	0	0	23	23.5	0	0	35	4	1	0	2	42	44.5	0	0	7	1	0	0	0	8	8
10:30	0	0	0	0	0	0	0	0	0	0	0	19	6	2	0	0	27	28	1	0	28	1	0	0	0	30	29.2	0	0	6	0	0	0	0	6	6
10:45	0	0	0	0	0	0	0	0	0	0	0	28	5	1	0	0	34	34.5	0	0	25	1	2	0	2	30	33	0	1	11	0	1	0	0	13	12.9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	84	19	5	0	0	108	110.5	1	0	119	8	3	0	5	136	141.7	0	1	28	1	1	0	0	31	30.9
11:00	0	0	0	0	0	0	0	0	0	0	0	24	2	0	0	0	26	26	1	0	39	4	1	0	2	47	48.7	0	0	7	1	0	0	0	8	8
11:15	0	0	0	0	0	0	0	0	0	0	0	31	6	1	0	0	38	38.5	0	1	25	3	1	0	0	30	29.9	0	0	6	0	1	0	0	7	7.5
11:30	0	0	0	0	0	0	0	0	0	0	0	18	5	2	1	0	26	28.3	0	0	36	5	0	0	1	42	43	0	0	2	0	0	0	0	2	2
11:45	0	0	0	0	0	0	0	0	0	0	0	18	4	2	0	0	24	25	0	0	33	5	1	0	1	40	41.5	0	0	12	0	0	0	0	12	12
H/TOT	0	0	0	0	0	0	0	0	0	0	0	91	17	5	1	0	114	117.8	1	1	133	17	3	0	4	159	163.1	0	0	27	1	1	0	0	29	29.5
12:00	0	0	0	0	0	0	0	0	0	0	0	31	5	3	0	0	39	40.5	0	0	34	5	0	0	1	40	41	0	0	5	1	0	0	0	6	6
12:15	0	0	0	0	0	0	0	0	0	0	0	33	3	0	0	0	36	36	0	0	37	3	1	0	2	43	45.5	0	0	8	0	0	0	0	8	8
12:30	0	0	0	0	0	0	0	0	0	0	0	34	3	0	0	0	37	37	0	1	42	1	0	0	1	45	45.4	0	0	5	0	0	0	0	5	5
12:45	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34	1	0	37	6	1	0	2	47	48.7	0	0	12	0	0	0	0	12	12
H/TOT	0	0	0	0	0	0	0	0	0	0	0	131	12	3	0	0	146	147.5	1	1	150	15	2	0	6	175	180.6	0	0	30	1	0	0	0	31	31
13:00	0	0	0	0	0	0	0	0	0	0	0	28	1	1	0	0	30	30.5	0	0	32	2	0	0	1	35	36	0	0	9	1	0	0	0	10	10
13:15	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27	0	0	37	2	0	0	1	40	41	0	0	5	1	0	0	0	6	6
13:30	0	0	0	0	0	0	0	0	0	0	1	34	0	0	0	0	35	34.4	0	0	33	3	1	0	1	38	39.5	0	0	12	1	0	0	0	13	13
13:45	0	0	0	0	0	0	0	0	0	0	0	23	3	0	0	0	26	26	0	0	31	1	0	0	1	33	34	0	0	11	0	0	0	0	11	11
H/TOT	0	0	0	0	0	0	0	0	0	0	1	111	5	1	0	0	118	117.9	0	0	133	8	1	0	4	146	150.5	0	0	37	3	0	0	0	40	40
14:00	0	0	0	0	0	0	0	0	0	0	0	41	4	0	0	0	45	45	0	0	27	2	0	0	2	31	33	0	0	11	1	0	0	0	12	12
14:15	0	0	0	0	0	0	0	0	0	0	0	36	2	2	0	0	40	41	0	0	31	2	0	0	1	34	35	0	1	10	1	0	0	0	12	11.4
14:30	0	0	0	0	0	0	0	0	0	0	0	52	8	1	1	0	62	63.8	0	0	43	1	1	0	1	46	47.5	0	0	11	1	0	0	0	12	12
14:45	0	0	0	0	0	0	0	0	0	0	0	54	2	0	0	0	56	56	0	0	40	1	0	0	2	43	45	0	0	8	1	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	183	16	3	1	0	203	205.8	0	0	141	6	1	0	6	154	160.5	0	1	40	4	0	0	0	45	44.4
15:00	0	0	0	0	0	0	0	0	0	0	0	52	1	0	0	0	53	53	0	1	38	1	1	0	1	42	42.9	0	0	12	0	0	0	0	12	12
15:15	0	0	0	0	0	0	0	0	0	0	0	49	3	0	0	0	52	52	0	0	58	6	0	0	1	65	66	0	0	8	1	0	0	0	9	9
15:30	0	0	0	0	0	0	0	0	0	0	0	44	4	0	0	0	48	48	1	0	32	2	0	0	1	36	36.2	0	0	14	1	0	0	0	15	15
15:45	0	0	0	0	0	0	0	0	0	0	0	60	6	1	0	0	67	67.5	0	0	27	0	0	0	3	30	33	0	0	7	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	205	14	1	0	0	220	220.5	1	1	155	9	1	0	6	173	178.1	0	0	41	2	0	0	0	43	43
16:00	0	0	0	0	0	0	0	0	0	0	0	32	7	0	0	0	39	39	0	0	23	4	0	0	1	28	29	0	0	16	0	0	0	0	16	16
16:15	0	0	0	0	0	0	0	0	0	0	0	51	4	0	0	0	55	55	0	0	33	3	0	0	2	38	40	0	0	3	0	0	0	0	3	3
16:30	0	0	0	0	0	0	0	0	0	1	0	32	3	0	0	0	36	35.2	0	0	29	2	0	0	1	32	33	0	0	8	0	0	0	0	8	8
16:45	0	0	0	0	0	0	0	0	0	0	0	33	3	0	0	0	36	36	1	0	37	6	0	0	2	46	47.2	0	0	6	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	1	0	148	17	0	0	0	166	165.2	1	0	122	15	0	0	6	144	149.2	0	0	33	0	0	0	0	33	33
17:00	0	0	0	0	0	0	0	0	0	0	0	45	1	1	0	0	47	47.5	0	0	36	5	0	0	2	43	45	0	0	7	0	0	0	0	7	7
17:15	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22	0	0	24	1	0	0	1	26	27	0	0	12	0	0	0	0	12	12
17:30	0	0	0	0	0	0	0	0	0	0	1	38	2	0	0	0	41	40.4	0	1	34	2	0	0	1	38	38.4	0	0	4	0	0	0	0	4	4
17:45	0	0	0	0	0	0	0	0	0	0	0	30	3	0	0	0	33	33	0	0	28	3	1	0	2	34	36.5	0	0	5	1	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	1	135	6	1	0	0	143	142.9	0	1	122	11	1	0	6	141	146.9	0	0	28	1	0	0	0	29	29
18:00	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	45	45	1	1	35	2	1	0	1	41	41.1	0	0	4	2	0	0	0	6	6
18:15	0	0	0	0	0	0	0	0	0	0	1	30	1	1	0	0	33	32.9	1	0	30	0	0	0	2	33	34.2	0	0	9	0	0	0	0	9	9
18:30	0	0	0	0	0	0	0	0	0	0	0	27	2	0	0	0	29	29	0	4	37	7	0	0	2	50	49.6	0	0	9	0	0	0	0	9	9
18:45	0	0	0	0	0	0	0	0	0	0	0	35	3	0	0	0	38	38	2	0	33	1	0	0	2	38	38.4	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	1	137	6	1	0	0	145	144.9	4	5	135	10	1	0	7	162	163.3	0	0	30	2	0	0	0	32	32
12 TOT	0	0	0	0	0	0	0	0	0	1	3	1588	158	26	2	1	1779	1793	12	10	1626	124	16	0	66	1854	1912.4	0	2	333	16	4	0	0	355	355.8



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Fri 03-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

B => A

TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	12	2	0	0	0	14	14
07:15	0	0	14	1	1	0	0	16	16.5
07:30	0	0	23	2	1	0	0	26	26.5
07:45	0	0	28	1	1	0	0	30	30.5
H/TOT	0	0	77	6	3	0	0	86	87.5
08:00	0	0	54	7	0	0	0	61	61
08:15	0	0	44	1	0	0	0	45	45
08:30	0	0	47	2	0	0	0	49	49
08:45	0	0	32	1	1	0	0	34	34.5
H/TOT	0	0	177	11	1	0	0	189	189.5
09:00	0	0	19	2	2	1	0	24	26.3
09:15	0	0	26	2	0	0	0	28	28
09:30	0	0	24	6	0	0	0	30	30
09:45	0	0	18	1	1	0	0	20	20.5
H/TOT	0	0	87	11	3	1	0	102	104.8
10:00	0	0	12	4	2	0	0	18	19
10:15	0	0	16	1	1	0	0	18	18.5
10:30	0	0	19	5	3	0	0	27	28.5
10:45	0	0	28	1	0	0	0	29	29
H/TOT	0	0	75	11	6	0	0	92	95
11:00	0	0	17	2	0	0	1	20	21
11:15	0	0	22	2	2	0	0	26	27
11:30	0	0	26	4	1	0	0	31	31.5
11:45	0	0	27	4	1	0	0	32	32.5
H/TOT	0	0	92	12	4	0	1	109	112
12:00	0	0	28	2	1	0	0	31	31.5
12:15	0	0	34	1	0	0	0	35	35
12:30	0	0	25	2	0	0	0	27	27
12:45	0	0	36	1	0	0	0	37	37
H/TOT	0	0	123	6	1	0	0	130	130.5
13:00	0	0	27	4	2	0	0	33	34
13:15	0	0	32	3	0	0	0	35	35
13:30	0	0	18	5	0	0	0	23	23
13:45	0	0	35	3	0	0	0	38	38
H/TOT	0	0	112	15	2	0	0	129	130
14:00	0	0	31	2	0	0	0	33	33
14:15	0	0	32	2	0	1	1	36	38.3
14:30	0	0	44	3	0	0	0	47	47
14:45	0	0	40	3	0	0	0	43	43
H/TOT	0	0	147	10	0	1	1	159	161.3
15:00	0	0	35	5	0	0	0	40	40
15:15	0	0	51	3	0	0	0	54	54
15:30	0	0	32	1	0	0	0	33	33
15:45	0	0	31	2	0	0	0	33	33
H/TOT	0	0	149	11	0	0	0	160	160
16:00	0	0	41	2	1	0	0	44	44.5
16:15	0	0	42	3	0	0	0	45	45
16:30	0	1	37	3	2	0	0	43	43.4
16:45	0	0	30	2	0	0	0	32	32
H/TOT	0	1	150	10	3	0	0	164	164.9
17:00	0	0	29	5	1	0	0	35	35.5
17:15	0	1	34	2	0	0	0	37	36.4
17:30	0	0	39	3	0	0	0	42	42
17:45	0	0	46	2	0	0	0	48	48
H/TOT	0	1	148	12	1	0	0	162	161.9
18:00	0	0	35	0	0	0	0	35	35
18:15	0	0	36	2	0	0	0	38	38
18:30	0	0	47	1	0	0	0	48	48
18:45	0	0	39	2	0	0	0	41	41
H/TOT	0	0	157	5	0	0	0	162	162
12 TOT	0	2	1494	120	24	2	2	1644	1659.4

B => B

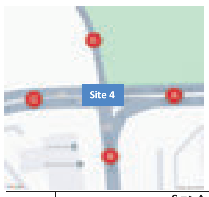
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0

B => C

TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	35	8	1	0	2	46	48.5
07:15	0	0	51	13	1	0	1	66	67.5
07:30	0	0	47	13	1	2	1	64	68.1
07:45	0	0	59	14	1	0	1	75	76.5
H/TOT	0	0	192	48	4	2	5	251	260.6
08:00	0	1	93	7	2	0	2	105	107.4
08:15	0	0	90	7	2	0	1	100	102
08:30	1	0	88	10	4	0	1	104	106.2
08:45	0	0	83	15	2	1	0	101	103.3
H/TOT	1	1	354	39	10	1	4	410	418.9
09:00	0	1	66	7	2	0	2	78	80.4
09:15	0	0	65	18	0	0	2	85	87
09:30	0	0	59	12	1	0	1	73	74.5
09:45	0	0	60	10	0	1	1	72	74.3
H/TOT	0	1	250	47	3	1	6	308	316.2
10:00	0	0	52	8	1	1	2	64	67.8
10:15	0	0	59	8	2	1	1	71	74.3
10:30	0	0	56	12	0	1	1	70	72.3
10:45	0	0	52	9	3	0	1	65	67.5
H/TOT	0	0	219	37	6	3	5	270	281.9
11:00	0	0	64	7	2	1	1	75	78.3
11:15	0	0	57	4	2	1	2	66	70.3
11:30	0	0	73	8	2	0	1	84	86
11:45	0	0	63	4	1	1	1	70	72.8
H/TOT	0	0	257	23	7	3	5	295	307.4
12:00	1	0	60	14	2	0	1	78	79.2
12:15	0	0	76	8	4	1	2	91	96.3
12:30	0	0	58	13	1	0	1	73	74.5
12:45	0	0	76	7	2	0	1	86	88
H/TOT	1	0	270	42	9	1	5	328	338
13:00	0	0	63	13	0	1	2	79	82.3
13:15	0	1	89	9	2	0	1	102	103.4
13:30	0	1	60	9	1	1	0	72	73.2
13:45	0	0	85	9	2	0	3	99	103
H/TOT	0	2	297	40	5	2	6	352	361.9
14:00	0	1	80	5	0	1	1	88	89.7
14:15	0	0	85	5	0	1	2	93	96.3
14:30	0	0	67	8	2	0	1	78	80
14:45	0	0	95	6	1	0	1	103	104.5
H/TOT	0	1	327	24	3	2	5	362	370.5
15:00	0	0	82	8	2	0	3	95	99
15:15	0	0	84	5	3	0	1	93	95.5
15:30	0	1	86	4	1	0	0	92	91.9
15:45	1	1	72	6	1	0	1	82	82.1
H/TOT	1	2	324	23	7	0	5	362	368.5
16:00	0	0	77	3	3	0	2	85	88.5
16:15	2	0	77	5	1	0	0	85	83.9
16:30	0	0	89	3	1	0	3	96	99.5
16:45	0	1	123	3	1	1	0	129	130.2
H/TOT	2	1	366	14	6	1	5	395	402.1
17:00	0	0	93	5	0	0	1	99	100
17:15	1	0	133	4	0	0	2	140	141.2
17:30	0	2	114	6	1	0	1	124	124.3
17:45	0	1	100	3	0	0	0	104	103.4
H/TOT	1	3	440	18	1	0	4	467	468.9
18:00	0	0	76	1	0	0	3	80	83
18:15	0	1	78	4	4	0	1	88	90.4
18:30	0	1	68	2	0	0	0	71	70.4
18:45	0	0	87	3	0	0	2	92	94
H/TOT	0	2	309	10	4	0	6	331	337.8
12 TOT	6	13	3605	365	65	16	61	4131	4232.7

B => D

TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	3	3	0	0	0	6	6
07:15	0	0	3	1	0	0	0	4	4
07:30	0	0	2	3	0	0	0	5	5
07:45	0	0	3	3	0	1	0	7	8.3
H/TOT	0	0	11	10	0	1	0	22	23.3
08:00	0	0	6	2	0	0	0	8	8
08:15	0	0	6	0	1	0	0	7	7.5
08:30	0	0	14	1	1	1	0	17	18.8
08:45	0	0	15	0	0	0	0	15	15
H/TOT	0	0	41	3	2	1	0	47	49.3
09:00	0	0	18	0	0	0	0	18	18
09:15	0	0	13	1	1	1	0	16	17.8
09:30	0	0	15	1	0	0	0	16	16
09:45	0	0	9	0	0	0	0	9	9
H/TOT	0	0	55	2	1	1	0	59	60.8
10:00	0	0	9	3	1	0	0	13	13.5
10:15	0	0	10	2	0	0	0	12	12
10:30	0	0	13	1	0	0	0	14	14
10:45	0	0	7	1	0	0	0	8	8
H/TOT	0	0	39	7	1	0	0	47	47.5
11:00	0	0	11	0	1	0	0	12	12.5
11:15	0	0	14	0	0	0	0	14	14
11:30	0	0	11	1	0	0	0	12	12
11:45	0	0	9	0	1	0	0	10	10.5
H/TOT	0	0	45	1	2	0	0	48	49
12:00	0	0	11	1	0	1	0	13	14.3
12:15	0	0	9	0	0	3	0	12	15.9
12:30	0	0	8	1	0	0	0	9	9
12:45	0	0	9	0	0	1	0	10	11.3
H/TOT	0	0	37	2	0	5	0	44	50.5
13:00	0	0	10	0	0	1	0	11	12.3
13:15	0	0	13	0	0	0	0	13	13
13:30	0	0	18	0	0	0	0	18	18
13:45	0	0	14	2	0	0	0	16	16
H/TOT	0	0	55	2	0	1	0	58	59.3
14:00	0	0	6	1	1	0	0	8	8.5
14:15	0	0	10	2	0	0	0	12	12
14:30	0	0	3	0	0	0	0	3	3
14:45	0	0	14	0	0	1	0	15	16.3
H/TOT	0	0	33	3	1	1	0	38	39.8
15:00	0	0	10	0	0	0	0	10	10
15:15	0	0	9	3	0	0	0	12	12
15:30	0	0	2	2	0	0	0	4	4
15:45	0	0	8	0	0	0	0	8	8
H/TOT	0	0	29	5	0	0	0	34	34
16:00	0	0	7	1	1	1	0	10	11.8
16:15	0	0	10	0	0	0	0	10	10
16:30	0	0	12	0	0	0	0	12	12
16:45	0	0	9	0	0	0	0	9	9
H/TOT	0	0	38	1	1	1	0	41	42.8
17:00	0	0	5	1	0	0	0	6	6
17:15	0	0	8	0	0	0	0	8	8
17:30	0	0	11	0	0	0	0	11	11
17:45	0	0	9	1	0	0	0	10	10
H/TOT	0	0	33	2	0	0	0	35	35
18:00	0	0	3	1	0	0	0	4	4
18:15	0	1	18	2	0	0	0	21	20.4
18:30	0	0	7	2	0	0	0	9	9
18:45	0	0	8	0	0	0	0	8	8
H/TOT	0	1	36	5	0	0	0	42	41.4
12 TOT	0	1	452	43	8	11	0	515	532.7



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Fri 03-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

C => A

TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	7	1	1	0	1	10	11.5
07:15	0	0	7	2	0	0	2	11	13
07:30	0	0	21	3	1	0	2	27	29.5
07:45	0	1	25	3	1	0	1	31	31.9
H/TOT	0	1	60	9	3	0	6	79	85.9
08:00	0	0	25	3	0	0	2	30	32
08:15	0	0	32	2	1	0	0	35	35.5
08:30	1	0	48	3	0	0	2	54	55.2
08:45	0	0	47	3	0	0	2	52	54
H/TOT	1	0	152	11	1	0	6	171	176.7
09:00	0	0	37	0	1	0	3	41	44.5
09:15	0	0	36	3	1	0	1	41	42.5
09:30	0	0	35	1	1	0	2	39	41.5
09:45	0	0	25	4	2	0	3	34	38
H/TOT	0	0	133	8	5	0	9	155	166.5
10:00	0	0	21	3	0	0	0	24	24
10:15	0	0	26	4	1	0	2	33	35.5
10:30	0	0	21	5	2	0	2	30	33
10:45	1	0	24	5	0	0	1	31	31.2
H/TOT	1	0	92	17	3	0	5	118	123.7
11:00	1	0	19	5	1	0	1	27	27.7
11:15	0	0	42	5	2	0	1	50	52
11:30	0	0	31	2	0	0	1	34	35
11:45	0	0	32	5	1	0	2	40	42.5
H/TOT	1	0	124	17	4	0	5	151	157.2
12:00	0	0	38	3	1	0	2	44	46.5
12:15	0	0	45	2	1	0	2	50	52.5
12:30	0	0	30	2	1	0	1	34	35.5
12:45	1	0	35	2	0	0	2	40	41.2
H/TOT	1	0	148	9	3	0	7	168	175.7
13:00	0	0	30	2	0	0	1	33	34
13:15	1	0	32	2	0	0	0	35	34.2
13:30	0	0	31	5	0	0	2	38	40
13:45	0	0	33	3	0	0	2	38	40
H/TOT	1	0	126	12	0	0	5	144	148.2
14:00	0	0	37	1	0	0	2	40	42
14:15	0	0	47	2	1	0	1	51	52.5
14:30	0	0	51	4	0	0	2	57	59
14:45	0	0	69	4	0	0	2	75	77
H/TOT	0	0	204	11	1	0	7	223	230.5
15:00	0	0	38	2	0	0	0	40	40
15:15	0	0	39	5	0	0	2	46	48
15:30	0	0	42	5	0	0	2	49	51
15:45	0	0	53	2	0	0	2	57	59
H/TOT	0	0	172	14	0	0	6	192	198
16:00	1	1	44	3	0	0	0	49	47.6
16:15	0	1	44	4	0	0	3	52	54.4
16:30	2	0	41	3	0	0	2	48	48.4
16:45	0	0	42	5	1	0	2	50	52.5
H/TOT	3	2	171	15	1	0	7	199	202.9
17:00	0	0	40	2	1	0	1	44	45.5
17:15	0	0	40	2	0	0	3	45	48
17:30	1	0	27	0	0	0	1	29	29.2
17:45	0	0	35	1	0	0	3	39	42
H/TOT	1	0	142	5	1	0	8	157	164.7
18:00	0	0	32	2	0	0	2	36	38
18:15	0	1	37	3	1	0	2	44	45.9
18:30	0	1	32	5	0	0	2	40	41.4
18:45	1	0	35	5	0	0	2	43	44.2
H/TOT	1	2	136	15	1	0	8	163	169.5
12 TOT	10	5	1660	143	23	0	79	1920	1999.5

C => B

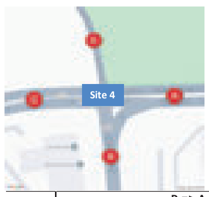
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	44	10	2	1	0	57	59.3
07:15	1	0	41	5	3	0	1	51	52.7
07:30	1	3	75	10	3	0	1	93	92.9
07:45	4	0	83	7	2	1	1	98	98.1
H/TOT	6	3	243	32	10	2	3	299	303
08:00	2	0	89	6	0	0	1	98	97.4
08:15	1	0	61	6	2	0	1	71	72.2
08:30	1	1	79	11	0	0	0	92	90.6
08:45	1	1	87	5	2	1	2	99	101.9
H/TOT	5	2	316	28	4	1	4	360	362.1
09:00	1	0	76	16	0	1	1	95	96.5
09:15	0	0	69	4	2	0	0	75	76
09:30	0	0	77	5	2	0	2	86	89
09:45	0	0	69	8	2	0	0	79	80
H/TOT	1	0	291	33	6	1	3	335	341.5
10:00	1	0	53	12	1	0	2	69	70.7
10:15	0	0	68	10	1	1	1	81	83.8
10:30	0	0	71	13	1	0	1	86	87.5
10:45	0	0	75	18	1	2	0	96	99.1
H/TOT	1	0	267	53	4	3	4	332	341.1
11:00	0	0	64	8	1	1	3	77	81.8
11:15	0	1	68	8	0	1	0	78	78.7
11:30	0	0	72	12	1	1	0	86	87.8
11:45	0	0	68	10	1	0	1	80	81.5
H/TOT	0	1	272	38	3	3	4	321	329.8
12:00	0	0	69	14	3	0	1	87	89.5
12:15	2	0	89	6	2	1	1	101	102.7
12:30	0	0	79	15	3	2	1	100	105.1
12:45	0	0	75	13	3	1	1	93	96.8
H/TOT	2	0	312	48	11	4	4	381	394.1
13:00	0	0	110	4	2	0	2	118	121
13:15	0	1	75	10	2	2	0	90	93
13:30	0	0	90	12	1	0	2	105	107.5
13:45	0	0	97	16	0	0	0	113	113
H/TOT	0	1	372	42	5	2	4	426	434.5
14:00	1	0	84	6	1	0	2	94	95.7
14:15	0	0	79	6	3	0	0	88	89.5
14:30	0	0	74	7	0	0	2	83	85
14:45	0	0	112	9	1	2	1	125	129.1
H/TOT	1	0	349	28	5	2	5	390	399.3
15:00	0	0	111	10	1	0	1	123	124.5
15:15	0	0	84	10	1	2	0	97	100.1
15:30	0	0	112	8	1	0	2	123	125.5
15:45	0	1	122	13	1	0	0	137	136.9
H/TOT	0	1	429	41	4	2	3	480	487
16:00	0	0	115	8	0	0	2	125	127
16:15	0	0	108	9	0	0	0	117	117
16:30	0	0	114	2	2	0	0	118	119
16:45	0	1	82	12	0	1	2	98	100.7
H/TOT	0	1	419	31	2	1	4	458	463.7
17:00	0	0	105	7	0	0	2	114	116
17:15	0	0	65	5	0	0	0	70	70
17:30	0	1	96	6	1	0	1	105	105.9
17:45	0	0	75	6	0	0	2	83	85
H/TOT	0	1	341	24	1	0	5	372	376.9
18:00	0	1	66	6	0	0	1	74	74.4
18:15	1	0	83	4	5	0	0	93	94.7
18:30	0	0	69	5	0	0	2	76	78
18:45	1	3	77	2	0	0	0	83	80.4
H/TOT	2	4	295	17	5	0	3	326	327.5
12 TOT	18	14	3906	415	60	21	46	4480	4560.5

C => C

TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0

C => D

TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	1	2	0	0	0	3	3
07:15	0	0	5	3	0	0	0	8	8
07:30	0	0	4	1	0	0	0	5	5
07:45	0	0	6	1	0	0	0	7	7
H/TOT	0	0	16	7	0	0	0	23	23
08:00	0	0	5	0	0	0	0	5	5
08:15	0	0	13	0	0	0	0	13	13
08:30	0	0	19	0	0	0	0	19	19
08:45	0	0	16	1	0	0	0	17	17
H/TOT	0	0	53	1	0	0	0	54	54
09:00	0	0	25	1	0	0	0	26	26
09:15	0	0	25	1	0	0	0	26	26
09:30	0	0	10	1	0	0	0	11	11
09:45	0	0	10	0	0	0	0	10	10
H/TOT	0	0	70	3	0	0	0	73	73
10:00	0	0	16	0	1	0	0	17	17.5
10:15	0	0	23	4	0	0	0	27	27
10:30	0	0	15	0	0	0	0	15	15
10:45	0	0	28	2	0	0	0	30	30
H/TOT	0	0	82	6	1	0	0	89	89.5
11:00	0	0	20	0	0	0	0	20	20
11:15	0	0	28	1	0	0	0	29	29
11:30	0	0	14	0	0	0	0	14	14
11:45	0	0	14	1	0	0	0	15	15
H/TOT	0	0	76	2	0	0	0	78	78
12:00	0	0	21	0	1	0	0	22	22.5
12:15	0	1	23	1	0	0	0	25	24.4
12:30	0	0	13	1	0	0	0	14	14
12:45	0	1	22	2	0	0	0	25	24.4
H/TOT	0	2	79	4	1	0	0	86	85.3
13:00	0	0	18	1	0	0	0	19	19
13:15	0	0	17	1	0	0	0	18	18
13:30	0	0	21	2	0	0	0	23	23
13:45	0	1	13	1	0	0	0	15	14.4
H/TOT	0	1	69	5	0	0	0	75	74.4
14:00	0	0	21	1	0	0	0	22	22
14:15	0	1	23	3	3	0	0	30	30.9
14:30	0	0	24	1	0	0	0	25	25
14:45	0	0	20	0	0	1	0	21	22.3
H/TOT	0	1	88	5	3	1	0	98	100.2
15:00	0	0	18	1	0	0	0	19	19
15:15	0	0	22	2	1	0	0	25	25.5
15:30	0	0	18	1	0	0	0	19	19
15:45	0	0	22	1	0	0	0	23	23
H/TOT	0	0	80	5	1	0	0	86	86.5
16:00	0	0	23	1	0	0	0	24	24
16:15	0	1	23	1	0	0	0	25	24.4
16:30	1	0	20	0	0	0	0	21	20.2
16:45	0	0	24	1	0	0	0	25	25
H/TOT	1	1	90	3	0	0	0	95	93.6
17:00	1	0	19	1	0	0	0	21	20.2
17:15	0	0	21	0	0	0	0	21	21
17:30	0	0	22	1	0	0	0	23	23
17:45	0	0	9	1	0	0	0	10	10
H/TOT	1	0	71	3	0	0	0	75	74.2
18:00	0	0	20	1	0	0	0	21	21
18:15	0	0	17	0	0	0	0	17	17
18:30	0	0	11	4	0	0	0	15	15
18:45	0	0	10	0	0	0	0	10	10
H/TOT	0	0	58	5	0	0	0	63	63
12 TOT	2	5	832	49	6	1	0	895	894.7



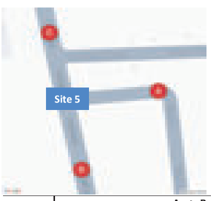
IDASO

Survey Name:	251010 - Bessboro, Cork
Site:	Site 4
Location:	Blackrock Avenue / Skehard Road / Mahon Link Road
Date:	Fri 03-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

	D => A									D => B								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:15	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3
07:30	0	0	2	0	0	0	0	2	2	0	0	7	1	0	0	0	8	8
07:45	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	6.5
H/TOT	0	0	4	0	0	0	0	4	4	0	0	15	1	1	0	0	17	17.5
08:00	0	0	1	0	0	0	0	1	1	0	0	6	0	0	0	0	6	6
08:15	0	0	2	0	0	0	0	2	2	0	0	6	0	0	1	0	7	8.3
08:30	0	0	2	0	0	0	0	2	2	0	0	5	1	1	0	0	7	7.5
08:45	0	0	4	0	0	0	0	4	4	0	0	8	1	1	0	0	10	10.5
H/TOT	0	0	9	0	0	0	0	9	9	0	0	25	2	2	1	0	30	32.3
09:00	0	0	4	0	0	0	0	4	4	0	0	4	0	0	0	0	4	4
09:15	0	0	4	0	0	0	0	4	4	0	0	13	0	0	0	0	13	13
09:30	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
09:45	0	0	1	0	0	0	0	1	1	0	0	16	0	0	2	0	18	20.6
H/TOT	0	0	9	0	0	0	0	9	9	0	0	40	1	0	2	0	43	45.6
10:00	0	0	4	1	0	0	0	5	5	0	0	11	2	0	0	0	13	13
10:15	0	0	6	1	0	0	0	7	7	0	0	11	0	0	0	0	11	11
10:30	0	0	10	0	0	0	0	10	10	0	0	14	2	1	0	0	17	17.5
10:45	0	0	10	0	0	0	0	10	10	0	0	18	0	2	0	0	20	21
H/TOT	0	0	30	2	0	0	0	32	32	0	0	54	4	3	0	0	61	62.5
11:00	0	0	8	1	0	0	0	9	9	0	0	9	0	0	0	0	9	9
11:15	0	1	8	1	0	0	0	10	9.4	0	0	5	1	1	2	0	9	12.1
11:30	0	0	7	1	1	0	0	9	9.5	0	0	9	2	0	2	0	13	15.6
11:45	0	0	11	1	0	0	0	12	12	0	0	9	0	0	0	0	9	9
H/TOT	0	1	34	4	1	0	0	40	39.9	0	0	32	3	1	4	0	40	45.7
12:00	0	0	5	1	1	0	0	7	7.5	0	0	13	0	0	0	0	13	13
12:15	0	0	10	0	0	0	0	10	10	0	0	16	0	0	0	0	16	16
12:30	0	0	16	0	0	0	0	16	16	0	0	22	2	0	4	0	28	33.2
12:45	0	1	10	1	0	0	0	12	11.4	0	0	11	3	0	0	0	14	14
H/TOT	0	1	41	2	1	0	0	45	44.9	0	0	62	5	0	4	0	71	76.2
13:00	0	0	11	1	0	0	0	12	12	0	0	7	1	0	0	0	8	8
13:15	0	0	12	0	0	0	0	12	12	0	0	15	0	0	2	0	17	19.6
13:30	0	0	14	0	0	0	0	14	14	0	0	8	0	0	0	0	8	8
13:45	0	0	9	1	0	0	0	10	10	0	1	12	5	0	1	0	19	19.7
H/TOT	0	0	46	2	0	0	0	48	48	0	1	42	6	0	3	0	52	55.3
14:00	0	1	8	0	0	0	0	9	8.4	0	0	12	2	0	0	0	14	14
14:15	0	0	10	1	0	0	0	11	11	0	0	16	0	1	1	0	18	19.8
14:30	0	1	9	2	0	0	0	12	11.4	0	0	9	1	1	0	0	11	11.5
14:45	0	0	15	0	0	0	0	15	15	0	0	9	1	0	0	0	10	10
H/TOT	0	2	42	3	0	0	0	47	45.8	0	0	46	4	2	1	0	53	55.3
15:00	0	0	20	0	0	0	0	20	20	0	0	12	4	0	0	0	16	16
15:15	0	0	9	0	0	0	0	9	9	0	0	18	2	0	1	0	21	22.3
15:30	0	0	16	0	0	0	0	16	16	0	0	11	4	0	2	0	17	19.6
15:45	0	0	12	2	0	0	0	14	14	0	0	21	1	1	0	0	23	23.5
H/TOT	0	0	57	2	0	0	0	59	59	0	0	62	11	1	3	0	77	81.4
16:00	0	0	9	1	1	0	0	11	11.5	0	0	21	0	0	0	0	21	21
16:15	0	0	14	1	0	0	0	15	15	0	0	8	0	0	0	0	8	8
16:30	0	0	12	1	0	0	0	13	13	0	0	14	0	0	1	0	15	16.3
16:45	0	0	9	1	0	0	0	10	10	0	0	16	1	0	0	0	17	17
H/TOT	0	0	44	4	1	0	0	49	49.5	0	0	59	1	0	1	0	61	62.3
17:00	0	0	16	0	0	0	0	16	16	0	0	15	0	0	0	0	15	15
17:15	0	0	8	0	0	0	0	8	8	0	0	10	0	0	0	0	10	10
17:30	0	0	10	2	0	0	0	12	12	0	0	6	0	0	0	0	6	6
17:45	0	0	13	0	0	0	0	13	13	0	0	12	1	0	0	0	13	13
H/TOT	0	0	47	2	0	0	0	49	49	0	0	43	1	0	0	0	44	44
18:00	0	0	11	0	0	0	0	11	11	0	0	10	0	0	0	0	10	10
18:15	0	0	12	1	0	0	0	13	13	0	1	6	0	0	0	0	7	6.4
18:30	0	0	12	2	0	0	0	14	14	0	0	3	1	0	0	0	4	4
18:45	0	0	10	0	0	0	0	10	10	0	0	9	0	0	0	0	9	9
H/TOT	0	0	45	3	0	0	0	48	48	0	1	28	1	0	0	0	30	29.4
12 TOT	0	4	408	24	3	0	0	439	438.1	0	2	508	40	10	19	0	579	607.5

	D => C									D => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:15	0	1	7	0	0	0	0	8	7.4	0	0	0	0	0	0	0	0	0
07:30	0	0	2	3	0	0	0	5	5	0	0	0	0	0	0	0	0	0
07:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	1	12	3	0	0	0	16	15.4	0	0	0	0	0	0	0	0	0
08:00	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
08:15	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
08:30	1	0	13	1	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0
08:45	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
H/TOT	1	0	56	1	0	0	0	58	57.2	0	0	0	0	0	0	0	0	0
09:00	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
09:15	0	0	13	1	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0
09:30	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
09:45	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
H/TOT	0	0	42	2	1	0	0	45	45.5	0	0	0	0	0	0	0	0	0
10:00	0	0	12	2	0	0	0	14	14	0	0	0	0	0	0	0	0	0
10:15	0	0	15	4	1	0	0	20	20.5	0	0	0	0	0	0	0	0	0
10:30	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0
10:45	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	0	0	58	9	1	0	0	68	68.5	0	0	0	0	0	0	0	0	0
11:00	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
11:15	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
11:30	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
11:45	1	0	26	1	0	0	0	28	27.2	0	0	0	0	0	0	0	0	0
H/TOT	1	0	73	2	0	0	0	76	75.2	0	0	0	0	0	0	0	0	0
12:00	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
12:15	0	1	11	1	0	0	0	13	12.4	0	0	0	0	0	0	0	0	0
12:30	0	0	26	1	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0
12:45	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
H/TOT	0	1	74	3	1	0	0	79	78.9	0	0	0	0	0	0	0	0	0
13:00	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0
13:15	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
13:30	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
13:45	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0
H/TOT	0	0	71	4	0	0	0	75	75	0	0	0	0	0	0	0	0	0
14:00	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0
14:15	0	1	15	0	0	0	0	16	15.4	0	0	0	0	0	0	0	0	0
14:30	0	0	13	1	2	0	0	16	17	0	0	0	0	0	0	0	0	0
14:45	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
H/TOT	0	1	66	3	2	0	0	72	72.4	0	0	0	0	0	0	0	0	0
15:00	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
15:15	0	0	22	3	0	0	0	25	25	0	0	0	0	0	0	0	0	0
15:30	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0
15:45	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0
H/TOT	0	0	71	5	0	0	0	76	76	0	0	0	0	0	0	0	0	0
16:00	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0
16:15	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0
16:30	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0
16:45	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0
H/TOT	0	0	74	2	0	0	0	76	76	0	0	0	0	0	0	0	0	0
17:00	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
17:15	0	0	14	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0
17:30	0	0	28	0	0	0	0	28	28	0	0	0	0	0	0	0	0	0
17:45	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	0	0	78	2	0	0	0	80	80	0	0	0	0	0	0	0	0	0
18:00	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
18:15	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
18:30	0	0	17	3	0	0	0	20	20	0	0	0	0	0	0	0	0	0
18:45	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
H/TOT	0	0	49	4	0	0	0	53	53	0	0	0	0	0	0	0	0	0
12 TOT	2	3	724	40	5	0	0	774	773.1	0	0	0	0	0	0	0	0	0



IDASO

Survey Name:	251010 - Bessboro, Cork
Site:	Site 5
Location:	Bessboro Road / Western Access to the nearby Residential Development
Date:	Fri 03-Oct-2025

Arm A - Western Access to nearby Residential Development
Arm B - Bessboro Rd South
Arm C - Bessboro Rd North

	A => B									A => C								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:15	0	0	0	1	0	0	0	1	1	0	0	3	0	0	0	0	3	3
07:30	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
07:45	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
H/TOT	0	0	0	1	0	0	0	1	1	0	0	22	1	0	0	0	23	23
08:00	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
08:15	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
08:30	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	21	21
08:45	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
H/TOT	0	0	0	0	0	0	0	0	0	0	0	64	3	0	0	0	67	67
09:00	0	0	2	0	0	0	0	2	2	0	0	7	0	0	0	0	7	7
09:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
09:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
09:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
H/TOT	0	0	2	0	0	0	0	2	2	0	0	16	1	0	0	0	17	17
10:00	0	0	1	1	0	0	0	2	2	0	0	4	0	0	0	0	4	4
10:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
10:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	1	1	0	0	0	2	2	0	0	12	0	0	0	0	12	12
11:00	0	0	1	0	0	0	0	1	1	0	0	3	2	1	0	0	6	6.5
11:15	0	0	0	0	0	0	0	0	0	1	0	3	0	1	0	0	5	4.7
11:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	1	0	0	0	0	1	1	1	0	12	2	2	0	0	17	17.2
12:00	0	0	0	1	0	0	0	1	1	0	0	2	0	0	0	0	2	2
12:15	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
12:30	0	0	1	1	0	0	0	2	2	0	0	11	3	1	0	0	15	15.5
12:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	0	0	1	2	0	0	0	3	3	0	0	24	4	1	0	0	29	29.5
13:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
13:15	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	11	10.2
13:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
13:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	1	0	24	0	0	0	0	25	24.2
14:00	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12
14:15	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
14:30	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
14:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	38	2	0	0	0	40	40
15:00	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
15:15	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	7	7.5
15:30	0	0	0	1	0	0	0	1	1	0	0	6	0	0	0	0	6	6
15:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	1	0	0	0	1	1	0	0	25	0	1	0	0	26	26.5
16:00	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8
16:15	0	0	0	0	0	0	0	0	0	0	0	6	2	1	0	0	9	9.5
16:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
16:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	19	4	1	0	0	24	24.5
17:00	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
17:15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
17:45	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	6.4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	21	1	0	0	0	23	22.4
18:00	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
18:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
18:30	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
18:45	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28
12 TOT	0	0	5	5	0	0	0	10	10	2	1	304	19	5	0	0	331	331.3

	B => A									C => A								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:30	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
07:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
08:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
08:30	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	10	10.5
08:45	0	0	1	0	0	0	0	1	1	1	0	12	0	0	0	0	13	12.2
H/TOT	0	0	1	0	0	0	0	1	1	1	0	24	2	1	0	0	28	27.7
09:00	0	0	1	0	0	0	0	1	1	0	0	18	1	0	0	0	19	19
09:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
09:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
09:45	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	31	3	0	0	0	34	34
10:00	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5
10:15	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
10:30	0	0	1	0	0	0	0	1	1	0	0	6	0	0	0	0	6	6
10:45	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
H/TOT	0	0	3	0	0	0	0	3	3	0	0	15	1	0	0	0	16	16
11:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
11:15	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	1.7
11:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:45	0	0	0	0	0	0	0	0	0	1	0	6	2	0	0	0	9	8.2
H/TOT	0	0	0	0	0	0	0	0	0	2	0	9	2	1	0	0	14	12.9
12:00	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
12:15	0	0	0	0	0	0	0	0	0	1	0	4	2	0	0	0	7	6.2
12:30	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8
12:45	0	0	0	1	0	0	0	1	1	0	0	2	1	0	0	0	3	3
H/TOT	0	0	0	1	0	0	0	1	1	1	0	13	7	0	0	0	21	20.2
13:00	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	7	6.2
13:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
13:30	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
13:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	1	0	24	1	0	0	0	26	25.2
14:00	0	0	1	0	0	0	0	1	1	0	0	6	2	0	0	0	8	8
14:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
14:30	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
14:45	0	0	0	0	0	0	0	0	0	0	0	10	2	1	0	0	13	13.5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	35	4	1	0	0	40	40.5
15:00	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
15:15	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
15:30	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
15:45	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	0	9	9
H/TOT	0	0	1	0	0	0	0	1	1	0	0	28	2	0	0	0	30	30
16:00	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10
16:15	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13.5
16:30	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
16:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	38	1	1	0	0	40	40.5
17:00	0	0	0	0	0	0	0	0	0	1	0	7	1	0	0	0	9	8.2
17:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
17:30	0	0	0	0	0	0	0	0	0	0	1	7	1	0	0	0	9	8.4
17:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	1	1	28	2	0	0	0	32	30.6
18:00	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
18:15	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11
18:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
18:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	19	1	0	0	0	20	20
12 TOT	0	0	8	1	0	0	0	9	9	6	1	274	26	4	0	0	311	307.6

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 6
Location: Bessboro / Eastern Access to the nearby Residential Development
Date: Fri 03-Oct-2025

Arm A - Eastern Access to nearby Residential Development
Arm B - Bessboro East
Arm C - Bessboro West

	A => B								A => C								B => A								C => A							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	7	6.2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
08:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	1	0	0	0	0	1	1	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	3	0	0	0	0	3	3
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	4	0	0	0	0	4	4	0	0	0	4	0	0	0	0	4	4
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
11:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5	0	0	0	1	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0.2	0	0	0	1	0	0	0	0	1	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:45	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	2	0	0	0	0	2	2	0	0	4	1	0	0	0	5	5	1	0	1	0	1	0	0	3	2.7	0	0	0	5	0	0	0	0	5	5
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:30	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
13:00	1	0	0	0	0	0	0	1	0.2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
13:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	8	0	0	0	0	8	8	1	0	0	0	0	0	0	1	0.2	0	0	0	2	0	0	0	0	2	2
14:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
14:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
15:00	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
15:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	3	2.2
15:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	1	0	0	0	0	1	1	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	1	0	7	1	0	0	0	9	8.2
16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
17:00	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
17:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
18:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	2	0	0	0	0	2	2
18:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
18:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
18:45	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	0	8	8	0	0	1	0	0	0	0	1	1	0	0	0	9	0	0	0	0	9	9
12 TOT	2	0	5	2	0	0	0	9	7.4	1	0	56	4	0	0	0	61	60.2	2	0	6	0	1	0	0	9	7.9	1	0	51	2	0	0	0	54	53.2

Traffic Count Data on
4 October 2025 (Saturday)

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 1
Location: Bessboro Rd / Bessboro Roundabout
Date: Sat 04-Oct-2025

Arm A - Bessboro
Arm B - Access To Childhood Matters
Arm C - Bessboro Rd West
Arm D - Bessboro Rd North

	A => A									A => B									A => C									A => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
09:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
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H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	3	0	0	0	25	25
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27
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12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	16	1	0	0	0	18	17.2
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	18	1	0	0	0	19	19
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H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	14	0	0	0	0	15	14.2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	15	1	0	0	0	16	16
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18:15	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
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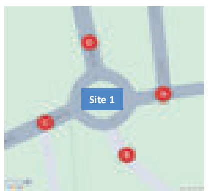
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	20	0	1	0	0	22	21.7
12 TOT	2	0	1	0	0	0	0	3	1.4	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4	3	0	209	12	1	0	0	225	223.1



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 1
Location: Bessboro Rd / Bessboro Roundabout
Date: Sat 04-Oct-2025

Arm A - Bessboro
Arm B - Access To Childhood Matters
Arm C - Bessboro Rd West
Arm D - Bessboro Rd North

	B => A									B => B									B => C									B => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	5	2	0	0	0	7	7
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
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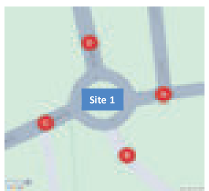
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
12 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	64	6	0	0	0	70	70

IDASO

Survey Name:	251010 - Bessboro, Cork	Arm A - Bessboro
Site:	Site 1	Arm B - Access To Childhood Matters
Location:	Bessboro Rd / Bessboro Roundabout	Arm C - Bessboro Rd West
Date:	Sat 04-Oct-2025	Arm D - Bessboro Rd North

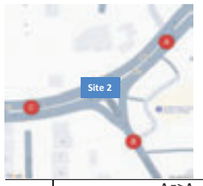
	C => A									C => B									C => C									C => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
08:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	7	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	18	1	2	0	0	21	22
11:00	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	1	0	12	13.3
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
11:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	1	0	2	0	0	0	0	3	2.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	3	0	1	0	34	35.3
12:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	10	10.5
12:15	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	6	4.4
H/TOT	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24	2	1	0	0	29	27.9
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
13:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	6.5
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	3	1	0	0	31	31.5
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5
14:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2	1	0	0	15	15.5
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
15:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	4.4
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	7	0	1	0	0	8	8.5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	1	21	0	1	0	0	23	22.9
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
16:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	10	9.4
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	24	1	0	0	0	26	25.4
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
17:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
17:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
17:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30	30
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	6.4
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	1	0	0	4	4.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	21	0	1	0	0	23	22.9
12 TOT	1	0	11	1	0	0	0	13	12.2	0	0	1	0	0	0	0	1	1	0	0	6	0	0	0	0	6	6	2	3	238	14	8	1	0	266	267.9



IDASO

Survey Name:	251010 - Bessboro, Cork	Arm A - Bessboro
Site:	Site 1	Arm B - Access To Childhood Matters
Location:	Bessboro Rd / Bessboro Roundabout	Arm C - Bessboro Rd West
Date:	Sat 04-Oct-2025	Arm D - Bessboro Rd North

	D => A									D => B									D => C									D => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	1	1	0	0	0	2	2	0	0	5	0	0	0	0	5	5	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:15	0	0	2	1	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:30	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:45	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	9	2	0	0	0	11	11	0	0	8	0	0	0	0	8	8	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:15	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:30	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:45	0	0	3	1	0	0	0	4	4	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1
H/TOT	0	0	9	2	0	0	0	11	11	0	0	2	0	0	0	0	2	2	0	0	10	0	0	0	0	10	10	0	0	1	0	0	0	0	1	1
09:00	0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3	3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
09:15	0	0	5	2	0	0	0	7	7	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	1	1	0	0	0	2	2	0	0	4	0	0	0	0	4	4	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0
09:45	0	0	1	0	0	0	0	1	1	0	0	7	2	0	0	0	9	9	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	9	3	0	0	0	12	12	0	0	15	2	0	0	0	17	17	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0
10:00	0	0	2	0	0	0	0	2	2	0	0	5	0	0	0	0	5	5	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0
10:15	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
10:30	0	0	7	0	0	0	0	7	7	0	0	0	1	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
10:45	0	0	6	0	0	0	0	6	6	0	0	0	1	0	0	0	1	1	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
H/TOT	0	0	17	0	0	0	0	17	17	0	0	5	2	0	0	0	7	7	0	0	14	1	0	1	0	16	17.3	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0
11:15	0	0	6	0	0	0	0	6	6	0	0	3	0	0	0	0	3	3	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
11:30	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
11:45	0	0	7	0	0	0	0	7	7	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	17	0	0	0	0	17	17	0	0	7	0	0	0	0	7	7	0	0	10	3	0	0	0	13	13	0	0	0	0	0	0	0	0	0
12:00	0	0	6	0	0	0	0	6	6	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
12:15	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1
12:30	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	2	1	0	0	0	3	3	0	0	1	0	0	0	0	1	1
12:45	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	16	0	0	0	0	16	16	0	0	4	0	0	0	0	4	4	1	0	7	1	0	0	0	9	8.2	0	0	2	0	0	0	0	2	2
13:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	5	1	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0
13:15	0	0	5	1	0	0	0	6	6	0	0	2	1	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
13:30	1	0	4	0	0	0	0	5	4.2	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
13:45	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
H/TOT	1	0	11	1	0	0	0	13	12.2	0	0	5	2	0	0	0	7	7	0	0	10	1	1	0	0	12	12.5	0	0	1	0	0	0	0	1	1
14:00	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	1	0	4	0	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0
14:15	0	0	5	0	0	0	0	5	5	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
14:30	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	1	0	4	1	0	0	0	6	5.2	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
H/TOT	1	0	16	1	0	0	0	18	17.2	0	0	6	0	0	0	0	6	6	1	0	9	0	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0
15:00	0	0	11	1	0	0	0	12	12	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
15:15	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
15:30	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
15:45	0	0	5	0	0	0	0	5	5	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2
H/TOT	0	0	29	1	0	0	0	30	30	0	0	3	0	0	0	0	3	3	0	0	10	0	0	0	0	10	10	0	0	2	0	0	0	0	2	2
16:00	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0
16:15	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1
16:30	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2
16:45	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2
H/TOT	0	0	24	1	0	0	0	25	25	0	0	2	0	0	0	0	2	2	0	0	14	1	0	0	0	15	15	0	0	5	0	0	0	0	5	5
17:00	0	0	6	0	0	0	0	6	6	0	0	1	0	0	0	0	1	1	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
17:15	0	0	4	0	0	0	0	4	4	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
17:30	0	0	5	0	0	0	0	5	5	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
17:45	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
H/TOT	0	0	20	0	0	0	0	20	20	0	0	4	0	0	0	0	4	4	0	0	24	0	0	0	0	24	24	0	0	1	0	0	0	0	1	1
18:00	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0
18:15	0	0	5	1	1	0	0	7	7.5	0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1
18:30	0	0	7	0	0	0	0	7	7	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1
18:45	0	0	6	0	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	21	1	1	0	0	23	23.5	0	0	6	0	0	0	0	6	6	1	0	11	0	0	0	0	12	11.2	0	0	2	0	0	0	0	2	2
12 TOT	2	0	198	12	1	0	0	213	211.9	0	0	67	6	0	0	0	73	73	3	0	132	10	1	1	0	147	146.4	0	0	14	0	0	0	0	14	14

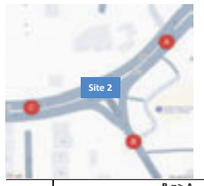


IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 2
Location: Skehard Road / Bessboro Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Bessboro Rd
Arm C - R852 Skehard Rd West

	A => A									A => B									A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	17	1	0	0	1	19	20
07:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	1	0	13	2	1	1	1	19	21
07:30	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7	0	0	19	5	0	1	2	27	30.3
07:45	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3	2.2	1	0	31	7	2	0	1	42	43.2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	13	4	0	0	0	18	17.2	2	0	80	15	3	2	5	107	114.5
08:00	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	1	0	18	1	1	0	2	23	24.7
08:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	1	0	21	5	2	0	1	30	31.2
08:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2	2	52	5	0	0	2	63	62.2
08:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	60	4	0	0	1	65	66
H/TOT	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	20	20	4	2	151	15	3	0	6	181	184.1
09:00	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	63	6	0	0	2	71	73
09:15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	2	0	56	9	0	0	1	68	67.4
09:30	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	15	1	1	52	4	0	1	2	61	62.9
09:45	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	102	10	0	0	1	113	114
H/TOT	0	0	0	0	0	0	0	0	0	0	0	33	4	0	0	0	37	37	3	1	273	29	0	1	6	313	317.3
10:00	0	0	0	0	0	0	0	0	0	0	0	11	0	0	1	0	12	13.3	0	0	99	6	0	0	1	106	107
10:15	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	95	6	0	0	3	104	107
10:30	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	2	0	111	1	2	0	2	118	119.4
10:45	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	2	0	108	1	3	0	3	117	119.9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	41	1	0	1	0	43	44.3	4	0	413	14	5	0	9	445	453.3
11:00	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13	2	1	108	7	1	0	2	121	121.3
11:15	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	83	1	0	0	1	85	86
11:30	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	1	106	4	1	0	2	114	115.9
11:45	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21	2	0	108	6	0	0	3	119	120.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	52	5	0	0	0	57	57	4	2	405	18	2	0	8	439	443.6
12:00	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	4	0	109	10	0	0	1	124	121.8
12:15	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	4	2	102	4	2	0	2	116	114.6
12:30	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	3	0	109	5	0	0	2	119	118.6
12:45	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	7	6.2	1	0	129	6	0	0	3	139	141.2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	34	0	0	0	0	35	34.2	12	2	449	25	2	0	8	498	496.2
13:00	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13.5	3	0	103	4	0	0	2	112	111.6
13:15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	6	1	101	4	0	0	1	113	108.6
13:30	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	11	10.2	0	0	96	2	0	0	2	100	102
13:45	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	1	0	94	4	0	0	3	102	104.2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	36	1	1	0	0	39	38.7	10	1	394	14	0	0	8	427	426.4
14:00	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	1	0	109	1	1	0	1	113	113.7
14:15	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	1	114	6	0	0	1	122	122.4
14:30	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	2	132	5	0	0	2	141	141.8
14:45	0	0	0	0	0	0	0	0	0	1	0	6	2	0	0	0	9	8.2	1	0	125	6	1	0	2	135	136.7
H/TOT	0	0	0	0	0	0	0	0	0	1	0	41	2	0	0	0	44	43.2	2	3	480	18	2	0	6	511	514.6
15:00	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	140	4	2	0	1	147	149
15:15	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	1	1	130	8	0	0	1	141	140.6
15:30	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	0	1	121	2	0	0	2	126	127.4
15:45	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	120	4	1	0	3	128	131.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0	0	44	44	1	2	511	18	3	0	7	542	548.5
16:00	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13	0	3	133	7	0	0	1	144	143.2
16:15	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	1	135	3	0	0	2	141	142.4
16:30	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	5	3	121	8	0	0	1	138	133.2
16:45	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	2	152	5	0	0	0	159	157.8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	46	5	0	0	0	51	51	5	9	541	23	0	0	4	582	576.6
17:00	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17	0	1	156	5	0	0	3	165	167.4
17:15	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	1	0	129	10	0	0	1	141	141.2
17:30	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	1	0	125	1	0	0	2	129	130.2
17:45	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	1	137	5	0	0	3	146	148.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	46	1	0	0	0	47	47	2	2	547	21	0	0	9	581	587.2
18:00	0	0	0	0	0	0	0	0	0	1	0	6	1	0	0	0	8	7.2	3	0	96	1	0	0	2	102	101.6
18:15	0	0	0	0	0	0	0	0	0	1	0	8	1	0	0	0	10	9.2	1	1	111	1	0	0	0	114	112.6
18:30	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15	2	1	110	2	0	0	2	117	116.8
18:45	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	1	0	115	2	0	0	4	122	125.2
H/TOT	0	0	0	0	0	0	0	0	0	2	0	43	2	0	0	0	47	45.4	7	2	432	6	0	0	8	455	456.2
12 TOT	0	0	0	0	0	0	0	0	0	6	0	447	27	1	1	0	482	479	56	26	4676	216	20	3	84	5081	5118.5



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 2
Location: Skehard Road / Bessboro Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Bessboro Rd
Arm C - R852 Skehard Rd West

	B => A									B => B									B => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
07:15	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3
07:30	0	0	5	2	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	7	7.5
07:45	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
H/TOT	0	0	15	3	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	12	4	1	0	0	17	17.5
08:00	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
08:15	1	0	2	1	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
08:30	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	8	7.7
08:45	0	0	6	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	1	0	17	3	0	0	0	21	20.2	0	0	0	0	0	0	0	0	0	1	0	21	4	1	0	0	27	26.7
09:00	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
09:15	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
09:30	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
09:45	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12
H/TOT	0	0	39	1	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	44	2	0	0	0	46	46
10:00	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7
10:15	1	0	8	0	0	0	0	9	8.2	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
10:30	0	0	16	1	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
10:45	0	0	11	1	2	0	0	14	15	0	0	0	0	0	0	0	0	0	0	0	17	1	1	0	0	19	19.5
H/TOT	1	0	47	2	2	0	0	52	52.2	0	0	0	0	0	0	0	0	0	0	0	42	4	1	0	0	47	47.5
11:00	0	0	16	1	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
11:15	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
11:30	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
11:45	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
H/TOT	0	0	61	5	0	1	0	67	68.3	0	0	0	0	0	0	0	0	0	0	0	65	2	0	0	0	67	67
12:00	0	0	18	1	1	0	0	20	20.5	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
12:15	1	0	13	0	0	0	0	14	13.2	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
12:30	0	0	16	1	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11
12:45	2	0	12	0	0	0	0	14	12.4	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
H/TOT	3	0	59	2	1	0	0	65	63.1	0	0	0	0	0	0	0	0	0	0	0	52	1	0	0	0	53	53
13:00	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	1	0	14	0	0	0	0	15	14.2
13:15	0	0	15	2	1	0	0	18	18.5	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13
13:30	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10
13:45	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
H/TOT	0	0	53	4	1	0	0	58	58.5	0	0	0	0	0	0	0	0	0	1	0	44	3	0	0	0	48	47.2
14:00	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
14:15	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
14:30	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
14:45	0	0	15	0	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	45	2	1	0	0	48	48.5	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	35	35
15:00	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
15:15	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
15:30	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
15:45	0	1	13	0	1	0	0	15	14.9	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
H/TOT	0	1	34	1	2	0	0	38	38.4	0	0	0	0	0	0	0	0	0	0	0	49	1	0	0	0	50	50
16:00	1	0	13	0	0	0	0	14	13.2	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
16:15	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
16:30	0	1	13	0	0	0	0	14	13.4	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12
16:45	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	1	0	8	1	0	0	0	10	9.2
H/TOT	1	1	43	1	0	0	0	46	44.6	0	0	0	0	0	0	0	0	0	1	0	38	2	0	0	0	41	40.2
17:00	0	1	14	0	0	0	0	15	14.4	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17
17:15	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
17:30	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15
17:45	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
H/TOT	0	1	52	1	0	0	0	54	53.4	0	0	0	0	0	0	0	0	0	0	0	46	3	0	0	0	49	49
18:00	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
18:15	0	1	11	1	1	0	0	14	13.9	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	8	7.2
18:30	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
18:45	0	0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
H/TOT	0	1	41	1	2	0	0	45	45.4	0	0	0	0	0	0	0	0	0	1	0	40	0	0	0	0	41	40.2
12 TOT	6	4	506	26	9	1	0	552	550.6	0	0	0	0	0	0	0	0	0	4	0	488	26	3	0	0	521	519.3

IDASO

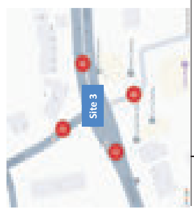
Survey Name: 251010 - Bessboro, Cork
Site: Site 2
Location: Skehard Road / Bessboro Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Bessboro Rd
Arm C - R852 Skehard Rd West

	C => A								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	3	3	0	0	3	9	12
07:15	1	1	15	2	1	0	0	20	19.1
07:30	0	0	14	6	0	0	1	21	22
07:45	1	1	26	3	1	1	2	35	37.4
H/TOT	2	2	58	14	2	1	6	85	90.5
08:00	0	0	23	2	0	1	2	28	31.3
08:15	0	0	20	2	1	0	1	24	25.5
08:30	0	0	41	4	0	0	2	47	49
08:45	1	0	49	3	0	0	1	54	54.2
H/TOT	1	0	133	11	1	1	6	153	160
09:00	0	0	55	5	0	0	1	61	62
09:15	1	0	81	5	1	0	2	90	91.7
09:30	2	0	75	3	0	0	2	82	82.4
09:45	3	0	71	7	1	0	1	83	82.1
H/TOT	6	0	282	20	2	0	6	316	318.2
10:00	2	0	107	3	1	0	1	114	113.9
10:15	2	0	100	7	0	0	2	111	111.4
10:30	2	1	141	8	0	0	1	153	151.8
10:45	3	0	106	6	0	0	2	117	116.6
H/TOT	9	1	454	24	1	0	6	495	493.7
11:00	3	1	110	6	0	0	2	122	121
11:15	4	0	117	4	0	0	2	127	125.8
11:30	1	1	137	3	2	0	3	147	149.6
11:45	2	0	133	7	0	0	1	143	142.4
H/TOT	10	2	497	20	2	0	8	539	538.8
12:00	1	0	116	7	0	0	2	126	127.2
12:15	3	0	143	4	2	0	1	153	152.6
12:30	1	1	152	5	1	0	3	163	165.1
12:45	2	1	125	12	1	0	2	143	143.3
H/TOT	7	2	536	28	4	0	8	585	588.2
13:00	2	0	126	6	0	0	1	135	134.4
13:15	2	1	141	6	1	0	2	153	153.3
13:30	1	2	143	7	1	0	2	156	156.5
13:45	1	0	150	6	2	1	2	162	165.5
H/TOT	6	3	560	25	4	1	7	606	609.7
14:00	3	0	120	2	0	0	1	126	124.6
14:15	1	1	147	8	0	0	3	160	161.6
14:30	0	3	152	5	1	0	0	161	159.7
14:45	0	0	131	4	0	0	2	137	139
H/TOT	4	4	550	19	1	0	6	584	584.9
15:00	1	0	103	7	0	0	2	113	114.2
15:15	3	0	131	5	0	0	4	143	144.6
15:30	2	0	125	2	1	0	1	131	130.9
15:45	0	1	121	2	1	0	1	126	126.9
H/TOT	6	1	480	16	2	0	8	513	516.6
16:00	0	1	134	4	0	0	1	140	140.4
16:15	0	1	143	6	0	0	1	151	151.4
16:30	0	0	146	6	0	0	3	155	158
16:45	2	1	133	5	1	0	1	143	142.3
H/TOT	2	3	556	21	1	0	6	589	592.1
17:00	2	2	140	4	0	0	1	149	147.2
17:15	4	1	105	9	0	0	2	121	119.2
17:30	2	0	108	2	0	0	3	115	116.4
17:45	2	2	104	4	0	0	1	113	111.2
H/TOT	10	5	457	19	0	0	7	498	494
18:00	2	3	88	5	2	0	2	102	101.6
18:15	1	1	109	1	1	0	4	117	120.1
18:30	1	1	96	2	0	0	2	102	102.6
18:45	1	1	93	7	0	0	0	102	100.6
H/TOT	5	6	386	15	3	0	8	423	424.9
12 TOT	68	29	4949	232	23	3	82	5386	5411.6

	C => B								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	2	1	0	0	0	3	3
07:15	0	0	3	1	0	0	0	4	4
07:30	0	0	2	0	0	0	0	2	2
07:45	0	0	3	0	0	0	0	3	3
H/TOT	0	0	10	2	0	0	0	12	12
08:00	0	0	1	0	0	0	0	1	1
08:15	0	0	2	0	1	0	0	3	3.5
08:30	0	0	3	0	0	0	0	3	3
08:45	0	0	5	2	0	0	0	7	7
H/TOT	0	0	11	2	1	0	0	14	14.5
09:00	0	0	9	0	0	0	0	9	9
09:15	0	0	9	2	0	0	0	11	11
09:30	0	0	4	0	0	0	0	4	4
09:45	0	0	10	1	0	0	0	11	11
H/TOT	0	0	32	3	0	0	0	35	35
10:00	0	0	11	1	0	0	0	12	12
10:15	0	0	10	1	1	0	0	12	12.5
10:30	0	0	12	0	0	0	0	12	12
10:45	1	0	10	1	0	0	0	12	11.2
H/TOT	1	0	43	3	1	0	0	48	47.7
11:00	0	0	7	0	0	0	0	7	7
11:15	0	0	11	1	0	0	0	12	12
11:30	0	0	8	0	0	0	0	8	8
11:45	0	0	16	0	0	0	0	16	16
H/TOT	0	0	42	1	0	0	0	43	43
12:00	0	0	15	0	0	0	0	15	15
12:15	0	0	11	0	0	0	0	11	11
12:30	0	0	8	1	0	0	0	9	9
12:45	0	0	10	2	0	0	0	12	12
H/TOT	0	0	44	3	0	0	0	47	47
13:00	0	0	3	1	0	0	0	4	4
13:15	0	0	6	2	0	0	0	8	8
13:30	0	0	5	1	0	0	0	6	6
13:45	0	0	6	0	0	0	0	6	6
H/TOT	0	0	20	4	0	0	0	24	24
14:00	0	0	14	0	0	0	0	14	14
14:15	1	0	5	0	0	0	0	6	5.2
14:30	0	0	8	0	0	0	0	8	8
14:45	0	0	11	1	1	0	0	13	13.5
H/TOT	1	0	38	1	1	0	0	41	40.7
15:00	0	0	15	1	0	0	0	16	16
15:15	0	0	9	0	0	0	0	9	9
15:30	0	0	7	0	0	0	0	7	7
15:45	0	0	12	0	0	0	0	12	12
H/TOT	0	0	43	1	0	0	0	44	44
16:00	0	0	13	0	0	0	0	13	13
16:15	0	0	9	0	0	0	0	9	9
16:30	0	0	17	1	0	0	0	18	18
16:45	0	0	16	0	0	0	0	16	16
H/TOT	0	0	55	1	0	0	0	56	56
17:00	0	1	9	0	0	0	0	10	9.4
17:15	0	0	7	0	0	0	0	7	7
17:30	0	0	11	0	0	0	0	11	11
17:45	0	0	14	0	0	0	0	14	14
H/TOT	0	1	41	0	0	0	0	42	41.4
18:00	0	0	7	0	0	0	0	7	7
18:15	0	0	10	0	1	0	0	11	11.5
18:30	0	0	10	0	0	0	0	10	10
18:45	0	0	9	0	0	0	0	9	9
H/TOT	0	0	36	0	1	0	0	37	37.5
12 TOT	2	1	415	21	4	0	0	443	442.8

	C => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

	A => A								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0

	A => B								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0
07:15	0	0	1	0	0	1	0	2	3.3
07:30	0	0	0	1	0	1	0	2	3.3
07:45	0	0	2	1	0	0	0	3	3
H/TOT	0	0	3	2	0	2	0	7	9.6
08:00	0	0	0	0	0	0	0	0	0
08:15	0	0	2	1	1	0	0	4	4.5
08:30	0	0	2	0	0	0	0	2	2
08:45	0	0	13	0	0	0	0	13	13
H/TOT	0	0	17	1	1	0	0	19	19.5
09:00	0	0	6	0	0	0	0	6	6
09:15	0	0	7	1	0	0	0	8	8
09:30	0	0	10	0	0	0	0	10	10
09:45	0	0	11	0	0	0	0	11	11
H/TOT	0	0	34	1	0	0	0	35	35
10:00	0	0	14	3	0	0	0	17	17
10:15	0	0	13	1	0	0	0	14	14
10:30	0	0	17	0	0	0	0	17	17
10:45	2	0	22	0	0	0	0	24	22.4
H/TOT	2	0	66	4	0	0	0	72	70.4
11:00	0	0	13	1	0	0	0	14	14
11:15	0	0	12	0	0	0	0	12	12
11:30	1	1	15	1	0	0	0	18	16.6
11:45	0	0	12	0	0	0	0	12	12
H/TOT	1	1	52	2	0	0	0	56	54.6
12:00	0	0	16	1	0	0	0	17	17
12:15	0	0	18	1	0	0	0	19	19
12:30	1	0	11	1	0	0	0	13	12.2
12:45	0	0	19	1	0	0	0	20	20
H/TOT	1	0	64	4	0	0	0	69	68.2
13:00	0	0	14	0	0	0	0	14	14
13:15	1	0	8	1	0	0	0	10	9.2
13:30	0	0	10	1	0	0	0	11	11
13:45	0	0	15	1	0	0	0	16	16
H/TOT	1	0	47	3	0	0	0	51	50.2
14:00	1	0	10	0	0	0	0	11	10.2
14:15	0	0	11	0	0	0	0	11	11
14:30	0	0	16	1	0	0	0	17	17
14:45	0	0	10	0	0	0	0	10	10
H/TOT	1	0	47	1	0	0	0	49	48.2
15:00	0	0	15	0	0	0	0	15	15
15:15	1	0	13	1	0	0	0	15	14.2
15:30	0	0	9	0	0	0	0	9	9
15:45	0	0	8	1	0	0	0	9	9
H/TOT	1	0	45	2	0	0	0	48	47.2
16:00	0	0	11	1	0	0	0	12	12
16:15	0	0	17	0	0	0	0	17	17
16:30	1	0	11	0	0	0	0	12	11.2
16:45	0	0	13	1	0	0	0	14	14
H/TOT	1	0	52	2	0	0	0	55	54.2
17:00	1	0	17	1	0	0	0	19	18.2
17:15	0	0	14	1	0	0	0	15	15
17:30	0	0	15	1	0	0	0	16	16
17:45	0	0	8	1	0	0	0	9	9
H/TOT	1	0	54	4	0	0	0	59	58.2
18:00	0	0	7	0	0	0	0	7	7
18:15	1	0	9	0	0	0	0	10	9.2
18:30	0	0	10	0	0	0	0	10	10
18:45	0	0	10	0	0	0	0	10	10
H/TOT	1	0	36	0	0	0	0	37	36.2
12 TOT	10	1	517	26	1	2	0	557	551.5

	A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	15	1	0	0	0	16	16
07:15	0	0	7	3	0	0	0	10	10
07:30	0	0	17	4	1	0	1	23	24.5
07:45	1	0	23	3	2	0	0	29	29.2
H/TOT	1	0	62	11	3	0	1	78	79.7
08:00	1	0	18	3	1	0	1	24	24.7
08:15	1	0	16	7	1	0	0	25	24.7
08:30	2	2	29	3	1	0	1	38	36.7
08:45	0	0	35	3	0	0	0	38	38
H/TOT	4	2	98	16	3	0	2	125	124.1
09:00	0	0	50	4	0	0	1	55	56
09:15	2	0	42	0	0	0	0	44	42.4
09:30	1	0	50	3	0	1	1	56	57.5
09:45	0	0	62	10	0	0	0	72	72
H/TOT	3	0	204	17	0	1	2	227	227.9
10:00	0	0	57	1	0	0	0	58	58
10:15	0	0	63	7	0	0	1	71	72
10:30	2	0	67	1	0	0	1	71	70.4
10:45	0	0	80	2	3	0	1	86	88.5
H/TOT	2	0	267	11	3	0	3	286	288.9
11:00	0	1	88	6	1	0	1	97	97.9
11:15	0	0	49	0	0	0	0	49	49
11:30	0	0	85	2	0	0	0	87	87
11:45	2	0	73	3	1	0	1	80	79.9
H/TOT	2	1	295	11	2	0	2	313	313.8
12:00	4	0	78	6	0	0	0	88	84.8
12:15	4	1	60	3	2	0	0	70	67.2
12:30	2	0	76	2	0	0	0	80	78.4
12:45	1	0	89	1	0	0	2	93	94.2
H/TOT	11	1	303	12	2	0	2	331	324.6
13:00	4	0	70	2	0	0	1	77	74.8
13:15	5	0	84	1	0	0	0	90	86
13:30	0	0	67	4	0	0	0	71	71
13:45	1	0	62	3	0	0	1	67	67.2
H/TOT	10	0	283	10	0	0	2	305	299
14:00	0	0	75	2	1	0	0	78	78.5
14:15	0	1	80	2	0	0	0	83	82.4
14:30	0	2	86	1	0	0	0	89	87.8
14:45	1	0	89	3	1	0	1	95	95.7
H/TOT	1	3	330	8	2	0	1	345	344.4
15:00	0	0	106	6	1	0	0	113	113.5
15:15	0	0	86	2	0	0	0	88	88
15:30	0	2	93	2	0	0	0	97	95.8
15:45	0	0	84	0	1	0	1	86	87.5
H/TOT	0	2	369	10	2	0	1	384	384.8
16:00	0	3	84	4	0	0	0	91	89.2
16:15	0	0	94	4	0	0	0	98	98
16:30	4	3	94	5	0	0	0	106	101
16:45	0	2	96	4	0	0	0	102	100.8
H/TOT	4	8	368	17	0	0	0	397	389
17:00	0	1	84	2	0	0	0	87	86.4
17:15	1	0	76	3	0	0	0	80	79.2
17:30	1	0	90	3	0	0	1	95	95.2
17:45	0	1	95	3	0	0	1	100	100.4
H/TOT	2	2	345	11	0	0	2	362	361.2
18:00	3	0	70	0	0	0	0	73	70.6
18:15	1	1	75	0	0	0	0	77	75.6
18:30	1	0	84	2	0	0	0	87	86.2
18:45	2	0	89	1	0	0	2	94	94.4
H/TOT	7	1	318	3	0	0	2	331	326.8
12 TOT	47	20	3242	137	17	1	20	3484	3464.2

	A => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	5	0	0	0	1	6	7
07:15	1	0	6	1	1	0	1	10	10.7
07:30	0	0	4	3	0	0	1	8	9
07:45	0	0	12	2	0	0	1	15	16
H/TOT	1	0	27	6	1	0	4	39	42.7
08:00	0	0	3	1	0	0	1	5	6
08:15	0	0	6	0	0	0	1	7	8
08:30	1	0	24	3	0	0	1	29	29.2
08:45	0	0	20	2	0	0	1	23	24
H/TOT	1	0	53	6	0	0	4	64	67.2
09:00	0	0	19	2	0	0	1	22	23
09:15	0	0	7	4	0	0	1	12	13
09:30	0	1	21	5	0	0	1	28	28.4
09:45	0	0	41	2	0	0	1	44	45
H/TOT	0	1	88	13	0	0	4	106	109.4
10:00	0	0	27	3	0	0	1	31	32
10:15	0	0	24	1	0	0	1	26	27
10:30	0	0	27	0	1	0	2	30	32.5
10:45	0	0	30	0	2	0	2	34	37
H/TOT	0	0	108	4	3	0	6	121	128.5
11:00	1	0	24	2	0	0	1	28	28.2
11:15	0	0	32	1	0	0	1	34	35
11:30	0	0	23	2	0	0	2	27	29
11:45	0	0	29	3	0	0	2	34	36
H/TOT	1	0	108	8	0	0	6	123	128.2
12:00	0	0	34	4	0	0	1	39	40
12:15	0	0	31	1	0	0	1	33	34
12:30	0	1	34	2	0	0	2	39	40.4
12:45	0	0	38	3	0	0	2	43	45
H/TOT	0	1	137	10	0	0	6	154	159.4
13:00	0	0	34	3	0	0	1	38	39
13:15	0	1	34	1	0	0	1	37	37.4
13:30	0	0	26	1	0	0	2	29	31
13:45	0	0	28	1	0	0	2	31	33
H/TOT	0	1	122	6	0	0	6	135	140.4
14:00	0	0	33	0	0	0	1	34	35
14:15	0	0	33	1	0	0	1	35	36
14:30	0	0	44	3	0	0	1	48	49
14:45	0	0	43	2	0	0	2	47	49
H/TOT	0	0	153	6	0	0	5	164	169
15:00	0	0	43	1	0	0	1	45	46
15:15	0	0	34	4	1	0	1	40	41.5
15:30	0	0	33	1	0	0	2	36	38
15:45	0	0	43	2	0	0	2	47	49
H/TOT	0	0	153	8	1	0	6	168	174.5
16:00	0	0	35	2	0	0	1	38	39
16:15	0	1	41	1	0	0	1	44	44.4
16:30	0	0	34	2	0	0	2	38	40
16:45	0	0	39	3	0	0	0	42	42
H/TOT	0	1	149	8	0	0	4	162	165.4
17:00	0	0	70	4	0	0	3	77	80
17:15	0	0	47	0	0	0	1	48	49
17:30	0	0	44	2	0	0	1	47	48
17:45	0	0	40	1	0	0	1	42	43
H/TOT	0	0	201	7	0	0	6	214	220
18:00	0	0	31	2	0	0	3	36	39
18:15	0	0	25	0	0	0	0	25	25
18:30	0	1	31	2	0	0	2	36	37.4
18:45	0	0	26	0	0	0	2	28	30
H/TOT	0	1	113	4	0	0	7	125	131.4
12 TOT	3	5	1412	86	5	0	64	1575	1636.1

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

	B => A									B => B									B => C									B => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	2	1	1	0	7	8.8	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:00	0	0	2	1	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	1	0	0	0	0	1	1
08:30	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5	0	0	1	0	0	0	0	1	1
08:45	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	8	1	0	0	0	9	9
H/TOT	0	0	9	1	0	1	0	11	12.3	0	0	0	0	0	0	0	0	0	0	0	10	1	1	0	0	12	12.5	0	0	10	1	1	0	0	12	12.5
09:00	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3
09:15	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	1	0	6	0	0	0	0	7	6.2
09:30	1	0	5	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	11	0	0	0	0	11	11
09:45	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1
H/TOT	1	0	34	1	0	0	0	36	35.2	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	1	0	21	0	0	0	0	22	21.2
10:00	0	0	12	0	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	6	0	0	0	0	6	6
10:15	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	13	0	0	0	0	13	13
10:30	0	0	14	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	22	22	0	0	9	1	0	0	0	10	10
10:45	2	0	14	0	0	0	0	16	14.4	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	6	0	0	0	0	6	6
H/TOT	2	0	52	3	1	0	0	58	56.9	0	0	0	0	0	0	0	0	0	0	0	49	4	0	0	0	53	53	0	0	34	1	0	0	0	35	35
11:00	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	1	0	18	0	0	0	0	19	18.2
11:15	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	11	1	0	0	0	12	12
11:30	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	11	0	0	0	0	11	11
11:45	0	0	17	2	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	13	0	0	0	0	13	13
H/TOT	0	0	57	4	0	0	0	61	61	0	0	0	0	0	0	0	0	0	0	0	50	1	0	0	0	51	51	1	0	53	1	0	0	0	55	54.2
12:00	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	1	13	0	0	0	0	14	13.4
12:15	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	1	0	15	0	0	0	0	16	15.2
12:30	1	0	13	7	0	0	0	21	20.2	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17	0	0	5	0	0	0	0	5	5
12:45	0	0	11	4	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15	0	0	7	0	0	0	0	7	7
H/TOT	1	0	46	12	0	0	0	59	58.2	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	53	53	1	1	40	0	0	0	0	42	40.6
13:00	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	15	1	0	0	0	16	16
13:15	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	8	1	0	0	0	9	9
13:30	1	0	10	3	0	0	0	14	13.2	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	7	6.2	2	0	11	1	0	0	0	14	12.4
13:45	1	0	12	0	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0	1	12	0	0	0	0	13	12.4	0	0	9	0	0	0	0	9	9
H/TOT	2	0	45	4	0	0	0	51	49.4	0	0	0	0	0	0	0	0	0	1	1	35	0	0	0	0	37	35.6	2	0	43	3	0	0	0	48	46.4
14:00	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	7	0	0	0	0	7	7
14:15	0	0	8	3	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	12	0	0	0	0	12	12
14:30	0	1	17	0	0	0	0	18	17.4	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	0	0	14	0	0	0	0	14	14
14:45	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	1	0	7	0	0	0	0	8	7.2
H/TOT	0	1	41	4	0	0	0	46	45.4	0	0	0	0	0	0	0	0	0	0	0	50	1	0	0	0	51	51	1	0	40	0	0	0	0	41	40.2
15:00	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10	0	0	8	0	0	0	0	8	8
15:15	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16	1	0	9	0	0	0	0	10	9.2
15:30	0	0	14	0	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18	0	0	10	0	0	0	0	10	10
15:45	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	18	0	0	0	0	18	18
H/TOT	0	0	50	0	1	0	0	51	51.5	0	0	0	0	0	0	0	0	0	0	0	50	5	0	0	0	55	55	1	0	45	0	0	0	0	46	45.2
16:00	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	10	0	0	0	0	10	10
16:15	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	11	0	0	0	0	11	11
16:30	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	11	0	0	13	0	0	0	0	13	13
16:45	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	3	0	10	0	0	0	0	13	10.6
H/TOT	0	0	44	3	0	0	0	47	47	0	0	0	0	0	0	0	0	0	0	0	34	3	0	0	0	37	37	3	0	44	0	0	0	0	47	44.6
17:00	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	14	1	0	0	0	15	15
17:15	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19	0	0	7	0	0	0	0	7	7
17:30	1	0	7	0	0	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	10	0	0	0	0	10	10
17:45	0	0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	14	0	0	0	0	14	14
H/TOT	1	0	33	3	0	0	0	37	36.2	0	0	0	0	0	0	0	0	0	0	0	55	2	0	0	0	57	57	0	0	45	1	0	0	0	46	46
18:00	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	12	0	0	0	0	12	12
18:15	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	12	0	0	0	0	12	12
18:30	1	0	10	0	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	1	0	13	0	0	0	0	14	13.2
18:45	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9	0	0	8	0	0	0	0	8	8
H/TOT	1	0	41	0	0	0	0	42	41.2	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	29	29	1	0	45	0	0	0	0	46	45.2
12 TOT	8	1	455	37	3	2	0	506	503.1	0	0	0	0	0	0	0	0	0	1	1	428	20	1	0	0	451	450.1	11	1	420	7	1	0	0	440	431.1

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

	C => A									C => B									C => C									C => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	3	2	0	0	1	6	7	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:15	1	1	13	1	0	0	0	16	14.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:30	0	0	11	4	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:45	1	1	17	2	1	0	1	23	23.1	0	0	1	1	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	11
H/TOT	2	2	44	9	1	0	2	60	59.7	0	0	3	2	2	0	0	7	8	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16
08:00	0	0	13	2	0	0	0	15	15	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	7	0	2	0	0	9	10
08:15	0	0	14	1	2	0	1	18	20	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4
08:30	0	0	36	2	0	0	0	38	38	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	9	9.5
08:45	1	0	29	3	0	0	1	34	34.2	0	0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
H/TOT	1	0	92	8	2	0	2	105	107.2	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	26	2	3	0	0	31	32.5
09:00	0	0	36	2	0	0	0	38	38	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	16	16
09:15	1	0	59	7	0	0	1	68	68.2	0	0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
09:30	1	0	49	3	0	0	0	53	52.2	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
09:45	1	0	56	3	1	0	1	62	62.7	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	1	0	15	1	0	0	0	17	16.2
H/TOT	3	0	200	15	1	0	2	221	221.1	0	0	30	0	1	0	0	31	31.5	0	0	0	0	0	0	0	0	0	1	0	56	4	0	0	0	61	60.2
10:00	2	0	62	2	0	0	0	66	64.4	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
10:15	2	0	65	4	1	0	1	73	72.9	0	0	15	2	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	26	26
10:30	1	1	86	7	0	0	0	95	93.6	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15
10:45	2	0	71	2	0	0	1	76	75.4	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	22	22
H/TOT	7	1	284	15	1	0	2	310	306.3	0	0	54	2	0	0	0	56	56	0	0	0	0	0	0	0	0	0	0	0	76	4	0	0	0	80	80
11:00	3	0	83	7	0	0	0	93	90.6	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	1	1	29	0	0	0	0	31	29.6
11:15	4	0	64	2	0	0	0	70	66.8	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
11:30	1	1	95	3	1	0	1	102	102.1	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23
11:45	2	0	90	6	0	0	1	99	98.4	0	0	11	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19
H/TOT	10	1	332	18	1	0	2	364	357.9	0	0	50	1	1	0	0	52	52.5	0	0	0	0	0	0	0	0	0	1	1	87	1	0	0	0	90	88.6
12:00	1	0	92	6	1	0	0	100	99.7	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	39	0	0	0	0	39	39
12:15	3	0	92	3	1	0	0	99	97.1	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
12:30	0	1	125	2	1	0	1	130	130.9	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
12:45	2	1	82	5	1	0	1	92	91.3	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	23	0	1	0	0	24	24.5
H/TOT	6	2	391	16	4	0	2	421	419	0	0	43	3	0	0	0	46	46	0	0	0	0	0	0	0	0	0	0	0	101	0	1	0	0	102	102.5
13:00	1	0	74	3	0	0	0	78	77.2	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
13:15	0	1	107	4	1	0	1	114	114.9	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28	28
13:30	0	2	96	4	2	0	0	104	103.8	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	28	2	0	0	0	30	30
13:45	0	0	96	5	1	1	0	103	104.8	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
H/TOT	1	3	373	16	4	1	1	399	400.7	0	0	41	0	0	0	0	41	41	0	0	0	0	0	0	0	0	0	0	0	90	2	0	0	0	92	92
14:00	1	0	102	2	0	0	0	105	104.2	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	37	4	0	0	0	41	41
14:15	2	1	98	3	0	0	1	105	103.8	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	1	21	0	0	0	0	22	21.4
14:30	0	1	104	4	1	0	0	110	109.9	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	1	26	1	0	0	0	28	27.4
14:45	0	0	88	6	0	0	0	94	94	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
H/TOT	3	2	392	15	1	0	1	414	411.9	0	0	45	3	0	0	0	48	48	0	0	0	0	0	0	0	0	0	0	2	106	5	0	0	0	113	111.8
15:00	1	0	84	5	0	0	0	90	89.2	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21
15:15	3	1	83	1	0	0	2	90	89	0	0	21	0	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18
15:30	2	0	90	2	0	0	0	94	92.4	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	1	26	1	0	0	0	28	27.4
15:45	0	0	87	2	1	0	0	90	90.5	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	34	2	0	0	0	36	36
H/TOT	6	1	344	10	1	0	2	364	361.1	0	0	58	1	1	0	0	60	60.5	0	0	0	0	0	0	0	0	0	0	1	99	3	0	0	0	103	102.4
16:00	0	1	92	2	0	0	0	95	94.4	0	0	13	2	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	32	1	0	0	0	33	33
16:15	0	0	99	3	0	0	0	102	102	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28	28
16:30	0	0	107	4	0	0	0	111	111	0	1	8	2	0	0	0	11	10.4	0	0	0	0	0	0	0	0	0	0	0	17	0	1	0	0	18	18.5
16:45	2	1	106	3	0	0	0	112	109.8	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	45	45
H/TOT	2	2	404	12	0	0	0	420	417.2	0	1	43	4	0	0	0	48	47.4	0	0	0	0	0	0	0	0	0	0	0	122	1	1	0	0	124	124.5
17:00	2	3	104	2	0	0	1	112	109.6	1	0	6	1	0	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34
17:15	4	1	67	4	0	0	1	77	74.2	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	36	1	0	0	0	37	37
17:30	2	0	98	1	0	0	0	101	99.4	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	1	0	30	3	0	0	0	34	33.2
17:45	2	2	76	2	0	0	0	82	79.2	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	2	0	31	1	0	0	0	34	32.4
H/TOT	10	6	345	9	0	0	2	372	362.4	1	0	39	2	0	0	0	42	41.2	0	0	0	0	0	0	0	0	0	3	0	130	6	0	0	0	139	136.6
18:00	1	3	64	5	2	0	0	75	73.4	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	1	32	2	0	0	0	35	34.4
18:15	1	1	76	1	2	0	2	83	84.6	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	1	0	22	1	0	0	0	24	23.2
18:30	0	1	60	4	0	0	0	65	64.4	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	29	29
18:45	1	1	55	2	0	0	0	59	57.6	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	27	27
H/TOT	3	6	255	12	4	0	2	282	280	0	0	40	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0	1	1	110	3	0	0	0	115	113.6
12 TOT	54	26	3456	155	20	1	20	3732	3704.5	1	1	462	20	5	0	0	489	490.1	0	0	0	0	0	0	0	0	0	6	5	1016	34	5	0	0	1066	1060.7

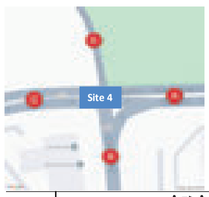
IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 3
Location: Church Road / Skehard Road
Date: Sat 04-Oct-2025

Arm A - R852 Skehard Rd East
Arm B - Access Road to Shops
Arm C - R852 Skehard Rd West
Arm D - R853 Church Rd

	D => A									D => B									D => C									D => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	2	0	0	0	2	4	6	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
07:15	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
07:30	0	0	5	3	0	0	1	9	10	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
07:45	0	0	10	1	0	0	1	12	13	0	0	2	0	0	0	0	2	2	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
H/TOT	0	0	19	6	0	0	4	29	33	0	0	3	1	0	0	0	4	4	0	0	14	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0
08:00	0	0	9	0	0	0	2	11	13	0	0	3	0	0	0	0	3	3	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
08:15	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
08:30	0	0	7	2	0	0	2	11	13	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
08:45	0	0	19	2	0	0	0	21	21	1	0	0	0	0	0	0	1	0.2	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
H/TOT	0	0	40	5	0	0	4	49	53	1	0	4	0	0	0	0	5	4.2	0	0	32	2	0	0	0	34	34	0	0	0	0	0	0	0	0	0
09:00	0	0	23	2	0	0	1	26	27	0	0	6	0	0	0	0	6	6	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
09:15	0	0	20	1	1	0	1	23	24.5	1	0	4	0	0	0	0	5	4.2	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
09:30	1	0	31	1	0	0	2	35	36.2	0	0	8	0	0	0	0	8	8	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
09:45	1	0	14	4	0	0	0	19	18.2	0	0	5	0	0	0	0	5	5	0	0	14	1	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0
H/TOT	2	0	88	8	1	0	4	103	105.9	1	0	23	0	0	0	0	24	23.2	0	0	47	2	1	0	0	50	50.5	0	0	0	0	0	0	0	0	0
10:00	0	0	32	3	0	0	1	36	37	0	0	13	1	0	0	0	14	14	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0
10:15	0	0	35	1	0	0	1	37	38	0	0	9	0	0	0	0	9	9	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0
10:30	1	0	50	1	0	0	1	53	53.2	0	0	12	0	0	0	0	12	12	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
10:45	0	0	32	4	0	0	1	37	38	1	0	12	0	0	0	0	13	12.2	0	0	28	1	0	0	0	29	29	0	0	0	0	0	0	0	0	0
H/TOT	1	0	149	9	0	0	4	163	166.2	1	0	46	1	0	0	0	48	47.2	0	0	74	2	0	0	0	76	76	0	0	0	0	0	0	0	0	0
11:00	0	1	28	0	0	0	2	31	32.4	0	0	6	1	0	0	0	7	7	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
11:15	0	0	41	2	0	0	2	45	47	0	0	14	0	0	0	0	14	14	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0
11:30	0	0	38	1	1	0	2	42	44.5	0	0	9	0	0	0	0	9	9	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0
11:45	0	0	41	1	0	0	0	42	42	0	0	14	0	0	0	0	14	14	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
H/TOT	0	1	148	4	1	0	6	160	165.9	0	0	43	1	0	0	0	44	44	0	0	72	2	0	0	0	74	74	0	0	0	0	0	0	0	0	0
12:00	0	0	35	1	0	0	2	38	40	1	0	9	0	0	0	0	10	9.2	1	0	15	0	0	0	0	16	15.2	0	0	0	0	0	0	0	0	0
12:15	0	0	40	2	0	0	2	44	46	0	0	6	0	0	0	0	6	6	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
12:30	0	0	37	3	0	0	1	41	42	0	0	10	0	0	0	0	10	10	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
12:45	0	0	47	2	0	0	1	50	51	0	0	6	1	0	0	0	7	7	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
H/TOT	0	0	159	8	0	0	6	173	179	1	0	31	1	0	0	0	33	32.2	1	0	49	2	0	0	0	52	51.2	0	0	0	0	0	0	0	0	0
13:00	1	0	32	2	0	0	1	36	36.2	0	0	5	0	0	0	0	5	5	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
13:15	2	0	36	6	0	0	1	45	44.4	0	0	7	2	0	0	0	9	9	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0
13:30	0	0	41	2	0	0	2	45	47	1	0	13	0	0	0	0	14	13.2	0	0	17	0	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0
13:45	0	0	41	2	0	0	2	45	47	0	0	10	2	0	0	0	12	12	0	1	13	1	0	0	0	15	14.4	0	0	0	0	0	0	0	0	0
H/TOT	3	0	150	12	0	0	6	171	174.6	1	0	35	4	0	0	0	40	39.2	0	1	61	3	0	1	0	66	66.7	0	0	0	0	0	0	0	0	0
14:00	2	0	32	0	0	0	1	35	34.4	1	0	13	0	0	0	0	14	13.2	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0
14:15	0	0	40	4	0	0	2	46	48	0	0	10	0	0	0	0	10	10	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
14:30	0	1	37	1	0	0	0	39	38.4	0	0	7	0	0	0	0	7	7	0	0	16	1	0	0	0	17	17	0	0	0	0	0	0	0	0	0
14:45	0	0	44	0	1	0	2	47	49.5	0	0	11	0	0	0	0	11	11	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
H/TOT	2	1	153	5	1	0	5	167	170.3	1	0	41	0	0	0	0	42	41.2	0	0	69	1	0	0	0	70	70	0	0	0	0	0	0	0	0	0
15:00	0	0	32	2	0	0	2	36	38	0	0	6	0	0	0	0	6	6	0	0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0
15:15	0	0	40	4	0	0	2	46	48	0	0	12	0	0	0	0	12	12	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0
15:30	0	0	34	0	0	0	1	35	36	0	0	13	0	0	0	0	13	13	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0
15:45	0	0	37	1	0	0	1	39	40	0	0	1	0	0	0	0	1	1	1	1	15	0	0	0	0	17	15.6	0	0	0	0	0	0	0	0	0
H/TOT	0	0	143	7	0	0	6	156	162	0	0	32	0	0	0	0	32	32	1	1	80	5	0	0	0	87	85.6	0	0	0	0	0	0	0	0	0
16:00	0	0	34	1	0	0	2	37	39	0	0	12	0	0	0	0	12	12	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
16:15	0	1	46	1	0	0	0	48	47.4	0	0	8	1	0	0	0	9	9	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
16:30	0	0	41	2	0	0	3	46	49	1	0	8	0	0	0	0	9	8.2	1	0	21	1	0	0	0	23	22.2	0	0	0	0	0	0	0	0	0
16:45	0	0	37	1	1	0	1	40	41.5	0	0	7	0	0	0	0	7	7	0	0	26	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0
H/TOT	0	1	158	5	1	0	6	171	176.9	1	0	35	1	0	0	0	37	36.2	1	0	73	3	0	0	0	77	76.2	0	0	0	0	0	0	0	0	0
17:00	0	0	35	2	0	0	0	37	37	0	0	7	0	0	0	0	7	7	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
17:15	0	0	34	2	0	0	1	37	38	0	0	8	0	0	0	0	8	8	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
17:30	0	0	27	1	0	0	3	31	34	0	0	9	0	0	0	0	9	9	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0
17:45	0	0	23	1	0	0	1	25	26	0	0	11	0	0	0	0	11	11	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
H/TOT	0	0	119	6	0	0	5	130	135	0	0	35	0	0	0	0	35	35	0	0	56	3	0	0	0	59	59	0	0	0	0	0	0	0	0	0
18:00	0	0	24	1	0	0	2	27	29	0	0	7	0	0	0	0	7	7	1	2	12	0	0	0	0	15	13	0	0	0	0	0	0	0	0	0
18:15	0	0	30	0	0	0	2	32	34	0	0	12	0	0	0	0	12	12	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0
18:30	0	0	35	0	0	0	2	37	39	0	0	11	1	0	0	0	12	12	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
18:45	0	0	32	2	0	0	0	34	34	0	0	7	0	0	0	0	7	7	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0
H/TOT	0	0	121	3	0	0	6	130	136	0	0	37	1	0	0	0	38	38	1	2	77	3	0	0	0	83	81	0	0	0	0	0	0	0	0	0
12 TOT	8	3	1447	78	4	0	62	1602	1657.8	7	0	365	10	0	0	0	382	376.4	4	4	704	30	1	1	0	744	740.2	0	0	0	0	0	0	0	0	0

IDASO



Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Sat 04-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

	A => A									A => B									A => C									A => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13	0	0	7	0	0	0	1	8	9	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	8	2	1	0	0	11	11.5	3	0	5	1	0	0	1	10	8.6	0	0	0	1	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	12	12	0	0	9	3	0	0	1	13	14	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16	3	0	11	2	1	0	1	18	17.1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	41	10	1	0	0	52	52.5	6	0	32	6	1	0	4	49	48.7	0	0	0	1	0	0	0	1	1
08:00	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	12	1	0	0	1	14	15	0	0	1	1	0	0	0	2	2
08:15	0	0	0	0	0	0	0	0	0	0	0	13	4	0	0	0	17	17	1	0	9	1	0	0	1	12	12.2	0	0	0	2	0	0	0	2	2
08:30	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	1	1	19	4	0	0	1	26	25.6	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	1	11	12	0	0	28	1	0	0	1	30	31	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	50	6	0	0	1	57	58	2	1	68	7	0	0	4	82	83.8	0	0	4	3	0	0	0	7	7
09:00	0	0	0	0	0	0	0	0	0	0	0	21	2	0	0	0	23	23	0	0	28	1	0	0	1	30	31	0	0	4	1	0	0	0	5	5
09:15	0	0	0	0	0	0	0	0	0	0	0	28	0	1	0	0	29	29.5	0	0	21	3	0	0	1	25	26	0	0	3	0	0	0	0	3	3
09:30	0	0	0	0	0	0	0	0	0	0	0	31	2	0	0	0	33	33	0	0	25	1	0	0	1	27	28	0	0	2	1	0	0	0	3	3
09:45	0	0	0	0	0	0	0	0	0	0	0	24	3	0	0	0	27	27	0	0	38	5	0	0	1	44	45	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	104	7	1	0	0	112	112.5	0	0	112	10	0	0	4	126	130	0	0	14	2	0	0	0	16	16
10:00	0	0	0	0	0	0	0	0	0	0	0	27	3	0	0	0	30	30	0	0	31	2	0	0	1	34	35	0	0	3	0	0	0	0	3	3
10:15	0	0	0	0	0	0	0	0	0	0	0	50	3	2	0	0	55	56	0	0	30	3	0	0	2	35	37	0	0	6	0	0	0	0	6	6
10:30	0	0	0	0	0	0	0	0	0	0	0	37	4	0	0	0	41	41	1	0	47	1	0	0	1	50	50.2	0	0	5	0	0	0	0	5	5
10:45	0	0	0	0	0	0	0	0	0	0	0	27	4	0	0	0	31	31	0	0	41	2	0	0	3	46	49	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	141	14	2	0	0	157	158	1	0	149	8	0	0	7	165	171.2	0	0	22	0	0	0	0	22	22
11:00	0	0	0	0	0	0	0	0	0	0	0	59	1	0	0	0	60	60	0	0	51	4	0	0	1	56	57	0	0	6	0	0	0	0	6	6
11:15	0	0	0	0	0	0	0	0	0	0	0	48	5	1	0	0	54	54.5	0	0	34	0	0	0	2	36	38	0	0	7	0	0	0	0	7	7
11:30	0	0	0	0	0	0	0	0	0	0	1	54	4	0	0	0	59	58.4	0	1	40	3	0	0	1	45	45.4	0	0	6	0	0	0	0	6	6
11:45	0	0	0	0	0	0	0	0	0	0	0	43	2	0	0	0	45	45	0	0	39	1	0	0	2	42	44	0	0	4	1	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	204	12	1	0	0	218	217.9	0	1	164	8	0	0	6	179	184.4	0	0	23	1	0	0	0	24	24
12:00	0	0	0	0	0	0	0	0	0	0	0	56	6	0	0	0	62	62	2	0	31	0	0	0	2	35	35.4	0	0	11	1	0	0	0	12	12
12:15	0	0	0	0	0	0	0	0	0	0	1	36	2	0	0	0	39	38.4	0	0	20	3	0	0	1	24	25	0	0	3	0	0	0	0	3	3
12:30	0	0	0	0	0	0	0	0	0	0	0	48	1	0	0	0	49	49	0	0	28	2	0	0	1	31	32	0	0	7	0	0	0	0	7	7
12:45	0	0	0	0	0	0	0	0	0	0	0	46	6	0	0	0	52	52	3	0	38	2	0	0	2	45	44.6	0	0	10	0	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	1	186	15	0	0	0	202	201.4	5	0	117	7	0	0	6	135	137	0	0	31	1	0	0	0	32	32
13:00	0	0	0	0	0	0	0	0	0	0	0	74	4	1	0	1	80	81.5	0	0	35	0	0	0	1	36	37	0	0	9	0	0	0	0	9	9
13:15	0	0	0	0	0	0	0	0	0	0	0	44	2	1	0	0	47	47.5	0	0	31	1	0	0	2	34	36	0	0	9	0	0	0	0	9	9
13:30	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	33	33	0	0	30	0	0	0	1	31	32	0	0	9	0	0	0	0	9	9
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H/TOT	0	0	0	0	0	0	0	0	0	0	1	189	8	2	0	1	201	202.4	1	0	128	3	0	0	6	138	143.2	0	0	37	0	0	0	0	37	37
14:00	0	0	0	0	0	0	0	0	0	0	0	30	3	1	0	0	34	34.5	0	0	41	0	0	0	2	43	45	0	0	9	0	0	0	0	9	9
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14:30	0	0	0	0	0	0	0	0	0	0	0	60	2	0	0	0	62	62	0	1	44	1	0	0	0	46	45.4	0	0	4	0	0	0	0	4	4
14:45	0	0	0	0	0	0	0	0	0	0	0	58	2	0	0	0	60	60	0	0	37	4	0	0	2	43	45	0	0	7	1	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	1	178	10	1	0	0	190	189.9	0	1	166	7	0	0	5	179	183.4	0	0	29	2	0	0	0	31	31
15:00	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0	70	70	0	0	49	1	0	0	2	52	54	0	0	12	0	0	0	0	12	12
15:15	0	0	0	0	0	0	0	0	0	0	0	60	2	0	0	0	62	62	0	1	36	2	0	0	1	40	40.4	0	0	9	0	0	0	0	9	9
15:30	0	0	0	0	0	0	0	0	0	0	0	44	3	0	0	0	47	47	0	1	40	0	0	0	1	42	42.4	1	0	9	0	0	0	0	10	9.2
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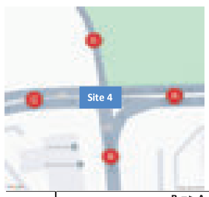
H/TOT	0	0	0	0	0	0	0	0	0	0	0	211	10	0	0	0	221	221	0	2	156	6	0	0	6	170	174.8	1	0	40	0	0	0	0	41	40.2
16:00	0	0	0	0	0	0	0	0	0	0	0	33	2	0	0	0	35	35	0	1	28	2	0	0	1	32	32.4	0	0	4	0	0	0	0	4	4
16:15	0	0	0	0	0	0	0	0	0	0	0	39	0	0	0	0	39	39	0	0	34	2	0	0	2	38	40	0	0	8	0	0	0	0	8	8
16:30	0	0	0	0	0	0	0	0	0	0	0	59	4	1	0	0	64	64.5	0	1	35	2	0	0	1	39	39.4	0	0	13	0	0	0	0	13	13
16:45	0	0	0	0	0	0	0	0	0	0	0	33	4	0	0	0	37	37	0	1	34	0	0	0	1	36	36.4	0	0	7	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	164	10	1	0	0	175	175.5	0	3	131	6	0	0	5	145	148.2	0	0	32	0	0	0	0	32	32
17:00	0	0	0	0	0	0	0	0	0	0	0	53	1	0	0	0	54	54	0	0	42	2	0	0	2	46	48	0	0	5	0	0	0	0	5	5
17:15	0	0	0	0	0	0	0	0	0	1	0	32	1	0	0	0	34	33.2	1	0	39	4	0	0	1	45	45.2	0	0	6	0	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	1	27	0	0	0	0	28	27.4	4	0	30	1	0	0	1	36	33.8	1	0	1	0	0	0	0	2	1.2
17:45	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	0	22	22	0	0	31	0	0	0	2	33	35	0	0	4	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	1	1	133	3	0	0	0	138	136.6	5	0	142	7	0	0	6	160	162	1	0	16	0	0	0	0	17	16.2
18:00	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	29	29	2	0	29	1	1	0	2	35	35.9	0	0	6	0	0	0	0	6	6
18:15	0	0	0	0	0	0	0	0	0	0	0	43	4	0	0	0	47	47	1	0	30	0	0	0	1	32	32.2	0	0	5	0	0	0	0	5	5
18:30	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	0	41	41	1	0	43	1	0	0	2	47	48.2	2	0	12	2	0	0	0	16	14.4
18:45	0	0	0	0	0	0	0	0	0	0	0	40	3	0	0	0	43	43	0	0	38	0	0	0	1	39	40	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	152	8	0	0	0	160	160	4	0	140	2	1	0	6	153	156.3	2	0	26	2	0	0	0	30	28.4
12 TOT	0	0	0	0	0	0	0	0	0	1	5	1753	113	9	0	2	1883	1885.7	24	8	1505	77	2	0	65	1681	1723	4	0	274	12	0	0	0	290	286.8

IDASO



Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Sat 04-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

	B => A									B => B									B => C									B => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	15	0	0	1	0	0	0	0	1	1
07:15	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	15	4	1	1	0	21	22.8	0	0	1	1	0	0	0	2	2
07:30	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	16	2	0	1	1	20	22.3	0	0	1	0	0	0	0	1	1
07:45	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	21	4	1	0	0	26	26.5	0	0	2	0	0	0	0	2	2
H/TOT	0	0	33	4	0	0	0	37	37	0	0	0	0	0	0	0	0	0	0	0	65	12	2	2	1	82	86.6	0	0	5	1	0	0	0	6	6
08:00	0	0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	10	1	5	0	1	17	20.5	0	0	1	0	0	1	0	2	3.3
08:15	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	16	5	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0
08:30	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	37	5	0	0	1	43	44	0	0	3	0	0	0	0	3	3
08:45	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	39	3	0	0	0	42	42	0	0	4	1	0	0	0	5	5
H/TOT	0	0	48	2	0	0	0	50	50	0	0	0	0	0	0	0	0	0	0	0	102	14	6	0	2	124	129	0	0	8	1	0	1	0	10	11.3
09:00	0	0	22	4	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0	0	0	37	4	0	0	1	42	43	0	0	2	0	0	0	0	2	2
09:15	0	0	21	3	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	37	7	0	0	0	44	44	0	0	7	0	0	0	0	7	7
09:30	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	1	39	5	0	1	1	47	48.7	0	0	4	2	0	0	0	6	6
09:45	0	0	39	3	0	0	0	42	42	0	0	0	0	0	0	0	0	0	0	0	58	7	0	0	0	65	65	0	0	6	1	0	0	0	7	7
H/TOT	0	0	106	11	1	0	0	118	118.5	0	0	0	0	0	0	0	0	0	0	1	171	23	0	1	2	198	200.7	0	0	19	3	0	0	0	22	22
10:00	0	0	39	1	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	67	3	0	1	1	72	74.3	1	0	5	1	0	0	0	7	6.2
10:15	0	0	48	2	0	0	0	50	50	0	0	0	0	0	0	0	0	0	0	0	60	7	1	0	0	68	68.5	0	0	5	0	0	0	0	5	5
10:30	0	0	35	2	0	0	1	38	39	0	0	0	0	0	0	0	0	0	0	0	63	2	1	0	1	67	68.5	0	0	9	0	0	0	0	9	9
10:45	1	0	56	3	0	0	0	60	59.2	0	0	0	0	0	0	0	0	0	0	0	66	1	3	0	0	70	71.5	0	1	6	0	0	0	0	7	6.4
H/TOT	1	0	178	8	0	0	1	188	188.2	0	0	0	0	0	0	0	0	0	0	0	256	13	5	1	2	277	282.8	1	1	25	1	0	0	0	28	26.6
11:00	0	0	26	2	2	0	0	30	31	0	0	0	0	0	0	0	0	0	0	1	60	7	1	0	1	70	70.9	0	0	7	0	0	0	0	7	7
11:15	0	0	49	4	0	0	0	53	53	0	0	0	0	0	0	0	0	0	0	0	51	1	0	0	0	52	52	0	0	9	3	1	0	0	13	13.5
11:30	0	0	36	3	0	0	0	39	39	0	0	0	0	0	0	0	0	0	0	0	62	6	0	0	0	68	68	0	0	4	1	0	0	0	5	5
11:45	0	0	64	3	0	0	0	67	67	0	0	0	0	0	0	0	0	0	0	0	81	5	0	0	1	87	88	0	0	14	0	0	0	0	14	14
H/TOT	0	0	175	12	2	0	0	189	190	0	0	0	0	0	0	0	0	0	0	1	254	19	1	0	2	277	278.9	0	0	34	4	1	0	0	39	39.5
12:00	0	0	45	3	0	0	0	48	48	0	0	0	0	0	0	0	0	0	1	0	69	6	0	0	0	76	75.2	0	0	9	0	0	0	0	9	9
12:15	0	0	44	4	0	0	0	48	48	0	0	0	0	0	0	0	0	0	0	2	89	3	2	0	0	96	95.8	0	0	10	0	0	0	0	10	10
12:30	0	0	44	4	0	0	0	48	48	0	0	0	0	0	0	0	0	0	0	0	89	6	0	0	1	96	97	0	0	15	0	0	0	0	15	15
12:45	0	0	51	2	1	0	0	54	54.5	0	0	0	0	0	0	0	0	0	0	0	72	3	0	0	1	76	77	1	0	9	0	0	0	0	10	9.2
H/TOT	0	0	184	13	1	0	0	198	198.5	0	0	0	0	0	0	0	0	0	1	2	319	18	2	0	2	344	345	1	0	43	0	0	0	0	44	43.2
13:00	0	0	38	2	0	0	0	40	40	0	0	0	0	0	0	0	0	0	1	0	84	3	0	0	1	89	89.2	0	0	11	0	0	0	0	11	11
13:15	0	0	50	4	0	0	0	54	54	0	0	0	0	0	0	0	0	0	0	1	66	1	0	0	0	68	67.4	0	0	5	0	0	0	0	5	5
13:30	0	0	52	2	0	0	0	54	54	0	0	0	0	0	0	0	0	0	0	0	75	2	0	0	1	78	79	0	0	8	0	0	0	0	8	8
13:45	0	0	45	2	0	0	0	47	47	0	0	0	0	0	0	0	0	0	0	0	69	2	1	0	0	72	72.5	0	0	10	0	0	0	0	10	10
H/TOT	0	0	185	10	0	0	0	195	195	0	0	0	0	0	0	0	0	0	1	1	294	8	1	0	2	307	308.1	0	0	34	0	0	0	0	34	34
14:00	0	1	50	1	1	0	0	53	52.9	0	0	0	0	0	0	0	0	0	0	0	86	0	1	0	0	87	87.5	0	0	11	1	0	0	0	12	12
14:15	0	0	58	3	0	0	0	61	61	0	0	0	0	0	0	0	0	0	0	1	88	1	1	0	0	91	90.9	0	0	10	1	0	0	0	11	11
14:30	0	0	29	1	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	93	4	0	0	1	98	99	0	0	13	0	0	0	0	13	13
14:45	0	1	31	0	0	0	0	32	31.4	0	0	0	0	0	0	0	0	0	0	0	83	3	1	0	0	87	87.5	0	0	8	0	0	0	0	8	8
H/TOT	0	2	168	5	1	0	0	176	175.3	0	0	0	0	0	0	0	0	0	0	1	350	8	3	0	1	363	364.9	0	0	42	2	0	0	0	44	44
15:00	0	0	32	0	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0	0	104	2	2	0	0	108	109	0	0	8	0	0	0	0	8	8
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15:30	0	0	41	2	0	0	0	43	43	0	0	0	0	0	0	0	0	0	0	0	88	2	0	0	0	90	90	0	0	13	1	0	0	0	14	14
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H/TOT	0	0	153	4	1	0	0	158	158.5	0	0	0	0	0	0	0	0	0	0	0	374	11	3	0	1	389	391.5	0	0	47	2	0	1	0	50	51.3
16:00	0	0	48	3	0	0	0	51	51	0	0	0	0	0	0	0	0	0	0	2	100	5	0	0	0	107	105.8	0	1	9	1	0	0	0	11	10.4
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16:30	0	0	50	3	0	0	0	53	53	0	0	0	0	0	0	0	0	0	0	2	95	3	0	0	0	100	98.8	0	0	9	1	0	0	0	10	10
16:45	0	0	28	2	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	1	129	3	0	0	0	133	132.4	0	1	4	0	0	0	0	5	4.4
H/TOT	0	0	173	10	0	0	0	183	183	0	0	0	0	0	0	0	0	0	0	5	424	13	0	0	0	442	439	0	2	37	3	0	0	0	42	40.8
17:00	0	0	35	0	0	0	0	35	35	0	0	0	0	0	0	0	0	0	0	0	120	2	0	0	0	122	122	0	1	15	1	0	0	0	17	16.4
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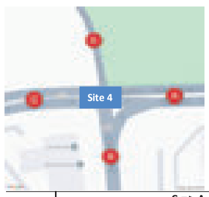
17:45	0	0	50	4	0	0	0	54	54	0	0	0	0	0	0	0	0	0	0	1	97	2	1	0	1	102	102.9	0	0	15	1	0	0	0	16	16
H/TOT	0	0	144	6	1	0	0	151	151.5	0	0	0	0	0	0	0	0	0	0	1	428	11	1	0	2	443	444.9	0	1	58	5	0	0	0	64	63.4
18:00	0	0	37	3	0	0	0	40	40	0	0	0	0	0	0	0	0	0	2	1	72	1	0	0	0	76	73.8	0	0	11	0	0	0	0	11	11
18:15	0	0	35	3	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	1	77	2	1	0	0	81	80.9	0	0	9	1	0	0	0	10	10
18:30	0	0	37	1	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	1	76	1	0	0	0	78	77.4	0	0	10	0	0	0	0	10	10
18:45	0	0	36	3	0	0	0	39	39	0	0	0	0	0	0	0	0	0	1	0	76	3	0	0	2	82	83.2	0	0	6	0	0	0	0	6	6
H/TOT	0	0	145	10	0	0	0	155	155	0	0	0	0	0	0	0	0	0	3	3	301	7	1	0	2	317	315.3	0	0	36	1	0	0	0	37	37
12 TOT	1	2	1692	95	7	0	1	1798	1800.5	0	0	0	0	0	0	0	0	0	5	15	3338	157	25	4	19	3563	3586.7	2	4	388	23	1	2	0	420	419.1

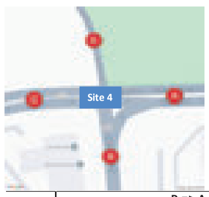
IDASO



Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Sat 04-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

	C => A									C => B									C => C									C => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	2	2	4	0	0	9	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	7	1	1	0	0	9	9.5	1	0	12	4	0	0	1	18	18.2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:30	0	0	4	3	0	0	1	8	9	0	0	17	4	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
07:45	1	0	10	1	0	0	1	13	13.2	0	1	15	4	1	2	1	24	27.5	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
H/TOT	1	0	21	5	1	0	4	32	35.7	1	1	53	14	1	2	2	74	77.7	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	7	7
08:00	0	0	6	1	0	0	1	8	9	0	0	21	2	1	1	0	25	26.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	5	0	0	0	1	6	7	0	0	17	4	3	0	1	25	27.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
08:30	0	0	8	2	0	0	2	12	14	0	0	30	4	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
08:45	1	0	15	2	0	0	0	18	17.2	0	0	45	7	0	0	1	53	54	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	1	0	34	5	0	0	4	44	47.2	0	0	113	17	4	1	2	137	142.3	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
09:00	0	0	12	0	0	0	1	13	14	0	0	41	3	0	0	0	44	44	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8
09:15	0	0	24	3	1	0	1	29	30.5	0	0	55	3	0	0	1	59	60	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11
09:30	0	0	23	0	0	0	2	25	27	0	0	57	0	0	0	0	57	57	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13
09:45	0	0	29	2	0	0	0	31	31	0	0	54	7	1	0	1	63	64.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	88	5	1	0	4	98	102.5	0	0	207	13	1	0	2	223	225.5	0	0	0	0	0	0	0	0	0	0	0	29	5	0	0	0	34	34
10:00	1	0	34	0	0	0	1	36	36.2	0	0	77	4	0	0	0	81	81	0	0	0	0	0	0	0	0	0	0	0	14	0	1	0	0	15	15.5
10:15	0	0	33	1	0	0	1	35	36	1	0	71	7	0	0	1	80	80.2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
10:30	0	0	29	3	0	0	1	33	34	0	1	113	5	0	0	0	119	118.4	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11
10:45	0	0	30	5	0	0	1	36	37	0	0	76	5	1	0	1	83	84.5	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21
H/TOT	1	0	126	9	0	0	4	140	143.2	1	1	337	21	1	0	2	363	364.1	0	0	0	0	0	0	0	0	0	0	0	49	2	1	0	0	52	52.5
11:00	0	0	44	2	0	0	2	48	50	0	2	85	4	1	1	0	93	93.6	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
11:15	0	0	37	1	0	0	2	40	42	0	0	68	7	0	0	0	75	75	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
11:30	0	0	34	2	1	0	1	38	39.5	0	0	101	1	1	0	1	104	105.5	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16
11:45	1	0	34	5	0	0	2	42	43.2	0	1	106	4	0	0	0	111	110.4	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	0	22	22
H/TOT	1	0	149	10	1	0	7	168	174.7	0	3	360	16	2	1	1	383	384.5	0	0	0	0	0	0	0	0	0	0	0	71	2	0	0	0	73	73
12:00	0	0	25	2	0	0	2	29	31	0	0	86	4	1	0	0	91	91.5	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21
12:15	0	0	43	0	0	0	1	44	45	1	0	108	4	2	0	0	115	115.2	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	20	20
12:30	0	0	29	2	0	0	2	33	35	0	0	120	6	1	0	1	128	129.5	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
12:45	0	0	32	2	0	0	0	34	34	0	1	103	6	0	0	1	111	111.4	0	0	0	0	0	0	0	0	0	1	1	14	2	0	0	0	18	16.6
H/TOT	0	0	129	6	0	0	5	140	145	1	1	417	20	4	0	2	445	447.6	0	0	0	0	0	0	0	0	0	1	1	68	4	0	0	0	74	72.6
13:00	0	0	46	2	0	0	2	50	52	1	0	80	3	0	0	0	84	83.2	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19
13:15	0	0	43	2	0	0	1	46	47	0	0	91	7	1	0	1	100	101.5	0	0	0	0	0	0	0	0	0	1	0	13	0	0	0	0	14	13.2
13:30	0	0	44	2	0	0	2	48	50	0	3	115	5	2	0	0	125	124.2	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0	15	15
13:45	0	0	53	3	0	0	2	58	60	0	0	95	5	2	0	0	102	103	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
H/TOT	0	0	186	9	0	0	7	202	209	1	3	381	20	5	0	1	411	411.9	0	0	0	0	0	0	0	0	0	1	0	57	2	0	0	0	60	59.2
14:00	1	0	34	0	0	0	1	36	36.2	0	0	89	3	0	1	0	93	94.3	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10
14:15	0	1	23	2	0	0	1	27	27.4	0	0	106	6	1	0	1	114	115.5	0	0	0	0	0	0	0	0	0	0	0	20	2	0	0	0	22	22
14:30	0	2	44	1	0	0	1	48	47.8	0	0	108	3	1	0	0	112	112.5	0	0	0	0	0	0	0	0	0	0	0	25	2	0	0	0	27	27
14:45	0	0	45	3	0	0	2	50	52	0	0	95	4	2	0	0	101	102	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
H/TOT	1	3	146	6	0	0	5	161	163.4	0	0	398	16	4	1	1	420	424.3	0	0	0	0	0	0	0	0	0	0	0	69	5	0	0	0	74	74
15:00	1	0	31	3	0	0	2	37	38.2	0	0	73	4	1	0	0	78	78.5	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
15:15	0	1	28	0	0	0	2	31	32.4	0	0	98	3	0	0	2	103	105	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
15:30	0	0	34	1	1	0	1	37	38.5	0	0	92	3	0	0	0	95	95	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
15:45	0	0	32	2	0	0	1	35	36	0	1	82	2	1	0	0	86	85.9	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17
H/TOT	1	1	125	6	1	0	6	140	145.1	0	1	345	12	2	0	2	362	364.4	0	0	0	0	0	0	0	0	0	0	0	66	1	0	0	0	67	67
16:00	1	0	36	0	0	0	1	38	38.2	0	0	75	3	0	0	0	78	78	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
16:15	0	0	39	4	0	0	1	44	45	0	1	103	2	0	0	0	106	105.4	0	0	0	0	0	0	0	0	0	0	1	17	1	0	0	0	19	18.4
16:30	0	0	45	5	0	0	3	53	56	0	0	101	4	0	0	0	105	105	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
16:45	0	0	40	2	0	0	1	43	44	2	0	97	3	1	0	0	103	101.9	0	0	0	0	0	0	0	0	0	0	1	15	0	0	0	0	16	15.4
H/TOT	1	0	160	11	0	0	6	178	183.2	2	1	376	12	1	0	0	392	390.3	0	0	0	0	0	0	0	0	0	0	2	61	2	0	0	0	65	63.8
17:00	0	2	38	2	0	0	0	42	40.8	1	0	98	3	0	0	1	103	103.2	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
17:15	0	1	38	4	0	0	1	44	44.4	0	0	74	4	0	0	1	79	80	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17
17:30	2	0	48	1	0	0	3	54	55.4	0	0	62	2	0	0	0	64	64	0	0	0	0	0	0	0	0	0	1	0	19	1	0	0	0	21	20.2
17:45	0	1	46	3	0	0	1	51	51.4	0	0	57	2	0	0	0	59	59	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	0	15	14.4
H/TOT	2	4	170	10	0	0	5	191	192	1	0	291	11	0	0	2	305	306.2	0	0	0	0	0	0	0	0	0	1	1	63	3	0	0	0	68	66.6
18:00	0	0	29	1	0	0	2	32	34	0	2	66	2	3	0	0	73	73.3	0	0	0	0	0	0	0	0	0	0	1	9	1	0	0	0	11	10.4
18:15	1	1	39	0	0	0	2	43	43.6	0	0	73	2	1	0	2	78	80.5	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
18:30	0	0	39	1	0	0	2	42	44	0	1	56	2	2	0	0	61	61.4	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
18:45	0	1	38	3	0	0	0	42	41.4	0	0	48	2	1	0	0	51	51.5	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
H/TOT	1	2	145	5	0	0	6	159	163	0	3	243	8	7	0	2	263	266.7	0	0	0	0	0	0	0	0	0	0	1	40	1	0	0	0	42	41.4
12 TOT	10	10	1479	87	4	0	63	1653	1704	7	14	3521	180	32	5	19	3778	3805.5	0	0	0	0	0	0	0	0	0	3	5	588	29	1	0	0	626	621.1



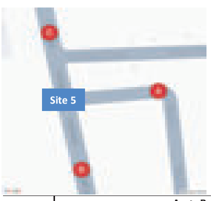
IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 4
Location: Blackrock Avenue / Skehard Road / Mahon Link Road
Date: Sat 04-Oct-2025

Arm A - Skehard Rd East
Arm B - R852 Mahon Link Road
Arm C - R852 Skehard Rd West
Arm D - Blackrock Ave

	D => A									D => B								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:15	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
07:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:45	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	1	0	0	0	4	4	0	0	3	0	0	0	0	3	3
08:00	0	0	1	1	0	0	0	2	2	0	0	2	0	0	0	0	2	2
08:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
08:30	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
08:45	0	0	1	0	0	0	0	1	1	0	0	3	0	0	1	0	4	5.3
H/TOT	0	0	2	1	0	0	0	3	3	0	0	13	1	0	1	0	15	16.3
09:00	0	0	3	0	0	0	0	3	3	0	0	5	1	0	0	0	6	6
09:15	0	0	2	1	0	0	0	3	3	0	0	6	1	0	0	0	7	7
09:30	0	0	5	0	0	0	0	5	5	0	0	7	2	0	0	0	9	9
09:45	0	0	5	0	0	0	0	5	5	0	0	8	1	0	0	0	9	9
H/TOT	0	0	15	1	0	0	0	16	16	0	0	26	5	0	0	0	31	31
10:00	0	0	8	0	0	0	0	8	8	0	0	11	2	0	0	0	13	13
10:15	0	0	4	0	0	0	0	4	4	0	0	2	0	0	0	0	2	2
10:30	0	0	4	0	0	0	0	4	4	0	0	6	0	0	0	0	6	6
10:45	0	1	10	0	0	0	0	11	10.4	0	0	10	1	0	0	0	11	11
H/TOT	0	1	26	0	0	0	0	27	26.4	0	0	29	3	0	0	0	32	32
11:00	0	0	8	1	0	0	0	9	9	0	0	12	0	0	0	0	12	12
11:15	0	0	7	0	0	0	0	7	7	0	0	7	0	0	0	0	7	7
11:30	0	0	9	1	0	0	0	10	10	1	0	8	1	0	0	0	10	9.2
11:45	1	0	9	2	0	0	0	12	11.2	0	0	9	0	0	0	0	9	9
H/TOT	1	0	33	4	0	0	0	38	37.2	1	0	36	1	0	0	0	38	37.2
12:00	0	0	10	0	0	0	0	10	10	0	0	10	0	0	0	0	10	10
12:15	1	0	7	0	0	0	0	8	7.2	0	0	15	0	0	0	0	15	15
12:30	0	0	10	0	0	0	0	10	10	0	0	10	1	0	0	0	11	11
12:45	0	0	14	0	0	0	0	14	14	0	0	10	0	0	0	0	10	10
H/TOT	1	0	41	0	0	0	0	42	41.2	0	0	45	1	0	0	0	46	46
13:00	0	0	14	1	0	0	0	15	15	0	0	9	2	0	0	0	11	11
13:15	0	0	10	0	0	0	0	10	10	0	0	11	0	0	0	0	11	11
13:30	0	0	10	0	0	0	0	10	10	0	0	11	0	0	0	0	11	11
13:45	0	0	13	0	0	0	0	13	13	0	0	11	1	0	0	0	12	12
H/TOT	0	0	47	1	0	0	0	48	48	0	0	42	3	0	0	0	45	45
14:00	1	0	11	0	0	0	0	12	11.2	0	0	9	2	0	0	0	11	11
14:15	0	0	8	0	0	0	0	8	8	0	0	9	0	0	0	0	9	9
14:30	1	0	9	1	0	0	0	11	10.2	0	0	12	1	0	0	0	13	13
14:45	0	0	11	1	0	0	0	12	12	0	0	15	0	0	0	0	15	15
H/TOT	2	0	39	2	0	0	0	43	41.4	0	0	45	3	0	0	0	48	48
15:00	0	0	17	0	0	0	0	17	17	0	0	8	0	0	0	0	8	8
15:15	0	0	11	0	0	0	0	11	11	0	0	8	0	0	0	0	8	8
15:30	1	0	15	1	0	0	0	17	16.2	0	0	11	1	0	0	0	12	12
15:45	0	0	17	0	0	0	0	17	17	0	0	6	0	0	0	0	6	6
H/TOT	1	0	60	1	0	0	0	62	61.2	0	0	33	1	0	0	0	34	34
16:00	0	0	10	0	0	0	0	10	10	0	0	9	0	0	0	0	9	9
16:15	0	0	8	1	0	0	0	9	9	0	2	13	0	0	0	0	15	13.8
16:30	0	0	9	1	0	0	0	10	10	0	0	8	0	0	0	0	8	8
16:45	0	0	8	0	0	0	0	8	8	0	0	6	0	0	0	0	6	6
H/TOT	0	0	35	2	0	0	0	37	37	0	2	36	0	0	0	0	38	36.8
17:00	0	0	14	0	0	0	0	14	14	0	0	7	0	0	0	0	7	7
17:15	0	0	6	0	0	0	0	6	6	0	0	7	0	0	0	0	7	7
17:30	0	0	13	0	0	0	0	13	13	0	0	7	1	0	0	0	8	8
17:45	0	0	12	0	0	0	0	12	12	0	1	8	0	0	0	0	9	8.4
H/TOT	0	0	45	0	0	0	0	45	45	0	1	29	1	0	0	0	31	30.4
18:00	0	0	15	0	0	0	0	15	15	0	1	8	1	0	0	0	10	9.4
18:15	1	0	8	2	0	0	0	11	10.2	0	0	4	0	0	0	0	4	4
18:30	0	0	5	2	0	0	0	7	7	0	0	7	0	0	0	0	7	7
18:45	0	0	7	0	0	0	0	7	7	0	0	6	0	0	0	0	6	6
H/TOT	1	0	35	4	0	0	0	40	39.2	0	1	25	1	0	0	0	27	26.4
12 TOT	6	1	381	17	0	0	0	405	399.6	1	4	362	20	0	1	0	388	386.1

	D => C									D => D								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:15	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:15	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:30	0	1	1	0	0	0	0	2	1.4	0	0	0	0	0	0	0	0	0
08:45	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
H/TOT	0	1	12	1	0	0	0	14	13.4	0	0	0	0	0	0	0	0	0
09:00	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0
09:15	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
09:30	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
09:45	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
H/TOT	0	0	32	2	0	0	0	34	34	0	0	0	0	0	0	0	0	0
10:00	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
10:15	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
10:30	0	0	8	2	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0
10:45	0	1	15	0	0	0	0	16	15.4	0	0	0	0	0	0	0	0	0
H/TOT	0	1	51	2	1	0	0	55	54.9	0	0	0	0	0	0	0	0	0
11:00	0	1	14	0	0	0	0	15	14.4	0	0	0	0	0	0	0	0	0
11:15	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
11:30	0	0	9	0	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0
11:45	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
H/TOT	0	1	53	0	1	0	0	55	54.9	0	0	0	0	0	0	0	0	0
12:00	0	0	20	3	0	0	0	23	23	0	0	0	0	0	0	0	0	0
12:15	1	0	13	0	0	0	0	14	13.2	0	0	0	0	0	0	0	0	0
12:30	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0
12:45	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
H/TOT	1	0	56	4	0	0	0	61	60.2	0	0	0	0	0	0	0	0	0
13:00	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
13:15	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
13:30	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
13:45	0	0	14	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0
H/TOT	0	0	51	2	0	0	0	53	53	0	0	0	0	0	0	0	0	0
14:00	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
14:15	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
14:30	0	1	15	1	0	0	0	17	16.4	0	0	0	0	0	0	0	0	0
14:45	0	0	16	1	0	0	0	17	17	0	0	0	0	0	0	0	0	0
H/TOT	0	1	56	3	0	0	0	60	59.4	0	0	0	0	0	0	0	0	0
15:00	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
15:15	1	0	16	0	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0
15:30	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
15:45	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0
H/TOT	1	0	54	0	0	0	0	55	54.2	0	0	0	0	0	0	0	0	0
16:00	0	0	18	4	0	0	0	22	22	0	0	0	0	0	0	0	0	0
16:15	0	1	10	0	0	0	0	11	10.4	0	0	0	0	0	0	0	0	0
16:30	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
16:45	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
H/TOT	0	1	57	4	0	0	0	62	61.4	0	0	0	0	0	0	0	0	0
17:00	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
17:15	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
17:30	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
17:45	0	0	7	4	0	0	0	11	11	0	0	0	0	0	0	0	0	0
H/TOT	0	0	41	5	0	0	0	46	46	0	0	0	0	0	0	0	0	0
18:00	1	0	14	0	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0
18:15	1	0	13	1	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0
18:30	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
18:45	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0
H/TOT	2	0	48	2	0	0	0	52	50.4	0	0	0	0	0	0	0	0	0
12 TOT	4	5	514	26	2	0	0	551	545.8	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 5
Location: Bessboro Road / Western Access to the nearby Residential Development
Date: Sat 04-Oct-2025

Arm A - Western Access to nearby Residential Development
Arm B - Bessboro Rd South
Arm C - Bessboro Rd North

	A => B									A => C								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
07:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
08:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	5	4.2
08:30	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4	3.2
08:45	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
H/TOT	0	0	1	0	0	0	0	1	1	2	0	7	2	0	0	0	11	9.4
09:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
09:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
09:30	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
09:45	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
10:00	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
10:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
10:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
10:45	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	7	7.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	21	1	1	0	0	23	23.5
11:00	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
11:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
11:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
11:45	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	29	29
12:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
12:30	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
12:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
13:00	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	8	7.2
13:15	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
13:30	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
13:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	22	2	0	0	0	25	24.2
14:00	1	0	1	0	0	0	0	2	1.2	0	0	5	1	0	0	0	6	6
14:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
14:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
14:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	1	0	1	0	0	0	0	2	1.2	0	0	17	1	0	0	0	18	18
15:00	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5
15:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
15:30	0	0	1	0	0	0	0	1	1	0	0	6	1	0	0	0	7	7
15:45	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	1	0	0	0	0	1	1	0	0	20	1	1	0	0	22	22.5
16:00	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	9	8.2
16:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
16:30	0	0	2	0	0	0	0	2	2	0	0	6	0	0	0	0	6	6
16:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
H/TOT	0	0	2	0	0	0	0	2	2	1	0	23	0	0	0	0	24	23.2
17:00	0	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	7	6.4
17:15	0	0	1	0	0	0	0	1	1	0	0	7	0	0	0	0	7	7
17:30	0	0	1	0	0	0	0	1	1	0	0	6	0	0	0	0	6	6
17:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
H/TOT	0	0	2	0	0	0	0	2	2	0	1	22	1	0	0	0	24	23.4
18:00	1	0	0	0	0	0	0	1	0.2	0	0	10	0	0	0	0	10	10
18:15	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
18:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
18:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	20	1	0	0	0	21	21
12 TOT	2	0	7	0	0	0	0	9	7.4	4	1	226	10	2	0	0	243	240.2

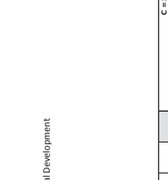
	B => A									C => A								
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1.2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4	3.2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
08:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
09:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
09:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
09:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
09:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
10:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5
10:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
10:45	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	5	4.2
H/TOT	0	0	1	0	0	0	0	1	1	1	0	10	0	1	0	0	12	11.7
11:00	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
11:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
11:30	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
11:45	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	23	2	0	0	0	25	25
12:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
12:15	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5
12:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
12:45	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
H/TOT	0	0	1	0	0	0	0	1	1	0	0	16	1	0	0	0	17	17
13:00	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
13:15	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
13:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
13:45	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	20	20
14:00	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
14:15	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4	3.2
14:30	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
14:45	0	0	0	0	0	0	0	0	0	0	0	5	3	1	0	0	9	9.5
H/TOT	0	0	0	0	0	0	0	0	0	1	0	23	3	1	0	0	28	27.7
15:00	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5
15:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
15:30	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
15:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	0	0	1	0	0	0	0	1	1	0	0	23	0	0	0	0	23	23
16:00	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
16:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
16:30	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
16:45	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11
H/TOT	0	0	0	0	0	0	0	0	0	0	0	31	2	0	0	0	33	33
17:00	0	0	1	0	0	0	0	1	1	0	1	9	0	0	0	0	10	9.4
17:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
17:30	0	0	3	0	0	0	0	3	3	0	0	6	0	0	0	0	6	6
17:45	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
H/TOT	0	0	4	0	0	0	0	4	4	0	1	26	1	0	0	0	28	27.4
18:00	0	0	0	0	0	0	0	0	0	1	0	7	1	0	0	0	9	8.2
18:15	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	5	4.2
18:30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
18:45	0	0	1	0	0	0	0	1	1	0	0	10	0	0	0	0	10	10
H/TOT	0	0	1	0	0	0	0	1	1	2	0	28	1	0	0	0	31	29.4
12 TOT	0	0	8	0	0	0	0	8	8	5	1	213	12	2	0	0	233	229.4

APPENDIX 2 – TRICS OUTPUT FILES FOR THE PROPOSED DEVELOPMENT

IDASO

Survey Name: 251010 - Bessboro, Cork
Site: Site 6
Location: Bessboro / Eastern Access to the nearby Residential Development
Date: Sat 04-Oct-2025

Arm A - Eastern Access to nearby Residential Development
Arm B - Bessboro East
Arm C - Bessboro West



	A => B									A => C									B => A								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	0	0	0	0	0	1	0.2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
08:00	1	0	0	0	0	0	0	1	0.2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5	0	0	0	1	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	1	0.2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	6	0	0	0	0	0	0	0	0
18:00	1	0	0	0	0	0	0	1	0.2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
18:45	0	0	1	0	0	0	0	1	0.2	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
H/TOT	1	0	1	0	0	0	0	2	1.2	0	0	0	6	0	0	0	6	7	0	0	0	0	0	0	0	0
12 TOT	3	0	1	0	0	0	0	4	1.6	2	0	46	3	0	0	0	51	49.4	2	0	0	1	0	0	0	3

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

Total People

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
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	27	62	0.063	0.378	0.441
08:00-09:00	27	62	0.115	0.544	0.659
09:00-10:00	27	62	0.167	0.245	0.412
10:00-11:00	27	62	0.164	0.198	0.362
11:00-12:00	27	62	0.149	0.202	0.351
12:00-13:00	27	62	0.204	0.209	0.413
13:00-14:00	27	62	0.172	0.186	0.358
14:00-15:00	27	62	0.181	0.185	0.366
15:00-16:00	27	62	0.320	0.167	0.487
16:00-17:00	27	62	0.311	0.170	0.481
17:00-18:00	27	62	0.413	0.193	0.606
18:00-19:00	27	62	0.404	0.201	0.605
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			2.663	2.878	5.541

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

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

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TRICS 8.25.6
Organisation: EGIS

User: kwok.chuen-lam@egis-group.com
Site: Classon House, Dublin

Audit Code: 5b429cdf-2819-4caf-ae23-bebd6e600e38

Parameter Summary:

Trip rate parameter range selected:	6 - 724 (units: DWELLS)
Survey date date range:	08/11/2016 - 02/10/2023
Number of weekdays (Monday-Friday):	27
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	43
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

Total Vehicles

Calculation factor: 1 PUPILS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. PUPILS	Arrivals	Departures	Totals
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	3	63	0.011	0.000	0.011
07:00-08:00	24	74	0.162	0.087	0.249
08:00-09:00	24	74	0.224	0.195	0.419
09:00-10:00	24	74	0.087	0.081	0.168
10:00-11:00	24	74	0.029	0.020	0.049
11:00-12:00	24	74	0.032	0.025	0.057
12:00-13:00	24	74	0.078	0.084	0.162
13:00-14:00	24	74	0.056	0.081	0.137
14:00-15:00	24	74	0.030	0.030	0.060
15:00-16:00	24	74	0.056	0.052	0.108
16:00-17:00	24	74	0.102	0.112	0.214
17:00-18:00	24	74	0.180	0.228	0.408
18:00-19:00	23	76	0.010	0.046	0.056
19:00-20:00	1	70	0.014	0.143	0.157
20:00-21:00	1	70	0.000	0.000	0.000
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			1.071	1.184	2.255

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

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

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TRICS 8.25.6
Organisation: EGIS

User: Kwok Chuen Lam
Office: Classon House, Dublin

Audit Code: f867d4f9-3fb9-45a5-bbaa-9ee4651d18ed

Parameter Summary:

Trip rate parameter range selected:	18 - 450 (units: PUPILS)
Survey date date range:	22/09/2016 - 06/09/2023
Number of weekdays (Monday-Friday):	24
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE

Total Vehicles

Calculation factor: 100 sqm

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. GFA	Arrivals	Departures	Totals
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	4	206	2.061	1.091	3.152
07:00-08:00	8	183	3.754	2.730	6.484
08:00-09:00	13	163	3.548	3.075	6.623
09:00-10:00	14	155	6.532	5.612	12.144
10:00-11:00	14	155	9.430	8.418	17.848
11:00-12:00	14	155	7.268	7.360	14.628
12:00-13:00	14	155	7.774	7.360	15.134
13:00-14:00	14	155	7.682	8.004	15.686
14:00-15:00	14	155	5.474	5.842	11.316
15:00-16:00	14	155	4.646	4.968	9.614
16:00-17:00	12	166	2.718	3.573	6.291
17:00-18:00	8	182	2.808	3.014	5.822
18:00-19:00	4	206	2.061	2.545	4.606
19:00-20:00	3	191	2.269	3.141	5.410
20:00-21:00	3	191	0.000	0.175	0.175
21:00-22:00	1	38	0.000	5.263	5.263
22:00-23:00					
23:00-00:00					
Total Rates:			68.025	72.171	140.196

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

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

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

TRICS 8.25.6
Organisation: EGIS

User: Kwok Chuen Lam
Office: Classon House, Dublin

Audit Code: b41c94d6-4a45-4532-aa52-017e8ac43597

Parameter Summary:

Trip rate parameter range selected:	38 - 325 (units: sqm)
Survey date date range:	12/10/2021 - 06/06/2024
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	0

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

APPENDIX 3 – BREAKDOWN OF TRIP GENERATION FOR THE PERMITTED DEVELOPMENTS

Breakdown of Trip Generation for the Permitted Developments

At the time of writing, six other developments, including Hotel and Office Development (Hibernia Star Ltd.), SHD Development (Montip Horizon Ltd.), Office Development (O'Flynn Construction Co. Unlimited Company), "Bessboro" Development (Murphy Transport Ltd.), Office Development (City Gate Plaza Developments Ltd.) and Residential Development (Clyde Real Estate Cork Ltd.), in the vicinity of proposed development have obtained planning permission. Those permitted developments shall be considered for this study in both the "without" and "with" development scenarios.

a) Permitted Hotel and Office Development (Hibernia Star Ltd.)

With reference to the planning application reference no. 22/40809, Table 1 below details the estimated trip generation for the permitted Hotel and Office Development (Hibernia Star Ltd.) during the morning and evening peak hours being considered for this study.

Type	Time	Factor	TRICS People Trip Rate		Adopted TRICS Vehicle Trip Rate		Adopted Hourly Trips	
			Arrival	Departure	Arrival	Departure	Trips In	Trips Out
Office	AM Peak	10,500m² GFA	1.628* *(per 100m²)*	0.140* *(per 100m²)*	0.977** *(per 100m²)*	0.084** *(per 100m²)*	103	9
	PM Peak		0.093* *(per 100m²)*	1.419* *(per 100m²)*	0.056** *(per 100m²)*	0.851** *(per 100m²)*	6	89
Hotel	AM Peak	165 bedrooms	-	-	0.131* *(per bedroom)*	0.181* *(per bedroom)*	22	30
	PM Peak		-	-	0.154* *(per bedroom)*	0.143* *(per bedroom)*	25	24
Total	AM Peak	-	-	-	-	-	**125**	**39**
	PM Peak	-	-	-	-	-	**31**	**113**

Note: * *The arrival and departure rates for this permitted development were extracted from the planning application with Reference: 22/40809.*
** *With applying the vehicle mode share of 60% for office as mentioned in this application.*

Table 1 - Trip Generation for Permitted Hotel and Office Development (Hibernia Star Ltd.)

b) Permitted SHD Development (Montip Horizon Ltd.)

Refer to the Section 5.5.2.4(b) of Chapter 5 of this EIAR.

c) Permitted Office Development (O'Flunn Construction Co. Unlimited Company)

With reference to the planning application reference no. 19/38875, Table 2 below details the estimated trip generation for the permitted Office Development (O'Flynn Construction Co. Unlimited Company) during the morning and evening peak hours being considered for this study.

Type	Time	Factor	TRICS People Trip Rate		Adopted TRICS Vehicle Trip Rate (with Vehicle Mode Share of 63%)**		Adopted Hourly Trips	
			Arrival*	Departure*	Arrival	Departure	Trips In	Trips Out
Office	AM Peak	12,005m² GFA	1.170 *(per 100m²)*	0.092 *(per 100m²)*	0.737 *(per 100m²)*	0.058 *(per 100m²)*	88	7
	PM Peak		0.113 *(per 100m²)*	1.082 *(per 100m²)*	0.071 *(per 100m²)*	0.682 *(per 100m²)*	9	82

Note: * *The arrival and departure rates for this permitted development were extracted from the planning application with Reference: 19/38875.*
** With applying the vehicle mode share of 63% for office as mentioned in this application.

Table 2 - Trip Generation for Permitted Office Development (O'Flynn Construction Co. Unlimited Company)

d) Permitted "Bessboro" Development (Murphy Transport Ltd.)

With reference to the planning application reference no. 17/37349, Table 3 below details the estimated trip generation for the permitted "Bessboro" Development (Murphy Transport Ltd.) during the morning and evening peak hours being considered for this study.

Type	Time	Factor	TRICS Vehicle Trip Rate		Adopted Hourly Trips	
			Arrival*	Departure*	Trips In	Trips Out
House	AM Peak	35 units	0.148 *(per unit)*	0.431 *(per unit)*	5	15
	PM Peak		0.429 *(per unit)*	0.252 *(per unit)*	15	9

Note: * *The arrival and departure rates for this permitted development were extracted from the planning application with Reference: 17/37349.*

Table 3 - Trip Generation for Permitted "Bessboro" Development (Murphy Transport Ltd.)

e) Permitted Office Development (City Gate Plaza Developments Ltd.)

With reference to the planning application reference no. 18/38036 as amended by the reference no. 24/42822, Table 4 below details the estimated trip generation for the permitted Office Development (City Gate Plaza Developments Ltd.) during the morning and evening peak hours being considered for this study.

Type	Time	Factor*	TRICS Vehicle Trip Rate		Adopted Hourly Trips	
			Arrival**	Departure**	Trips In	Trips Out
Office (Blocks A1 & A2)	AM Peak	12,235m² GFA	1.442 *(per unit)*	0.241 *(per unit)*	176	29
	PM Peak		0.304 *(per unit)*	1.107 *(per unit)*	37	135

Note: * *The GFA of Office (Blocks A1 & A2) was extracted from the planning application with Reference: 24/42822.*
** *The arrival and departure rates for this permitted development were extracted from the planning application with Reference: 18/38036.*

Table 4 - Trip Generation for Permitted Office Development (City Gate Plaza Developments Ltd.)

f) Permitted Residential Development (Clyde Real Estate Cork Ltd.)

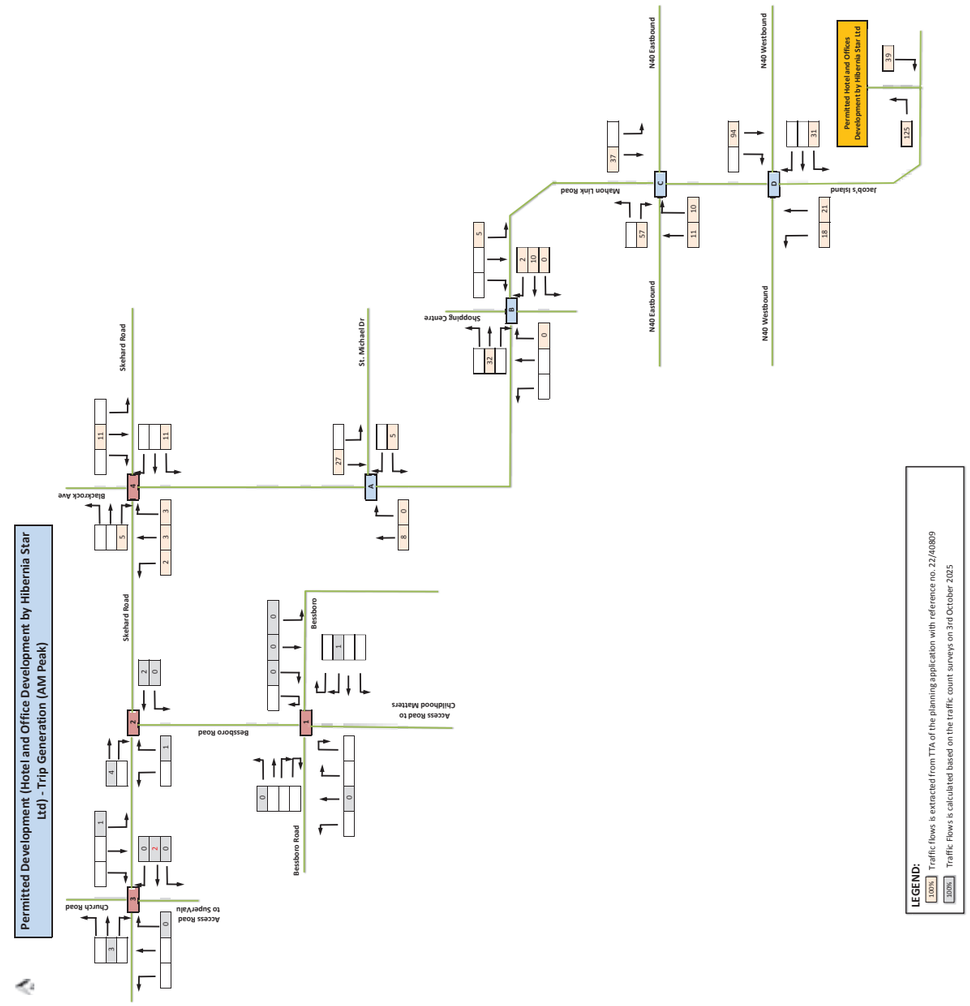
With reference to the planning application reference no. 21/40196 as amended by the reference nos. ABP-314310-22 and 24/43351, Table 5 below details the estimated trip generation for the permitted Residential Development (Clyde Real Estate Cork Ltd.) during the morning and evening peak hours being considered for this study.

Type	Time	Factor*	TRICS Vehicle Trip Rate		Adopted Hourly Trips	
			Arrival**	Departure**	Trips In	Trips Out
Apartment	AM Peak	204 units	0.038 *(per unit)*	0.134 *(per unit)*	8	27
	PM Peak		0.189 *(per unit)*	0.105 *(per unit)*	39	21
Creche	AM Peak	220m² GFA	5.946 *(per 100m²)*	3.271 *(per 100m²)*	13	7
	PM Peak		3.766 *(per 100m²)*	5.055 *(per 100m²)*	8	11
Total	**AM Peak**	-	-	-	**21**	**35**
	PM Peak	-	-	-	**47**	**33**

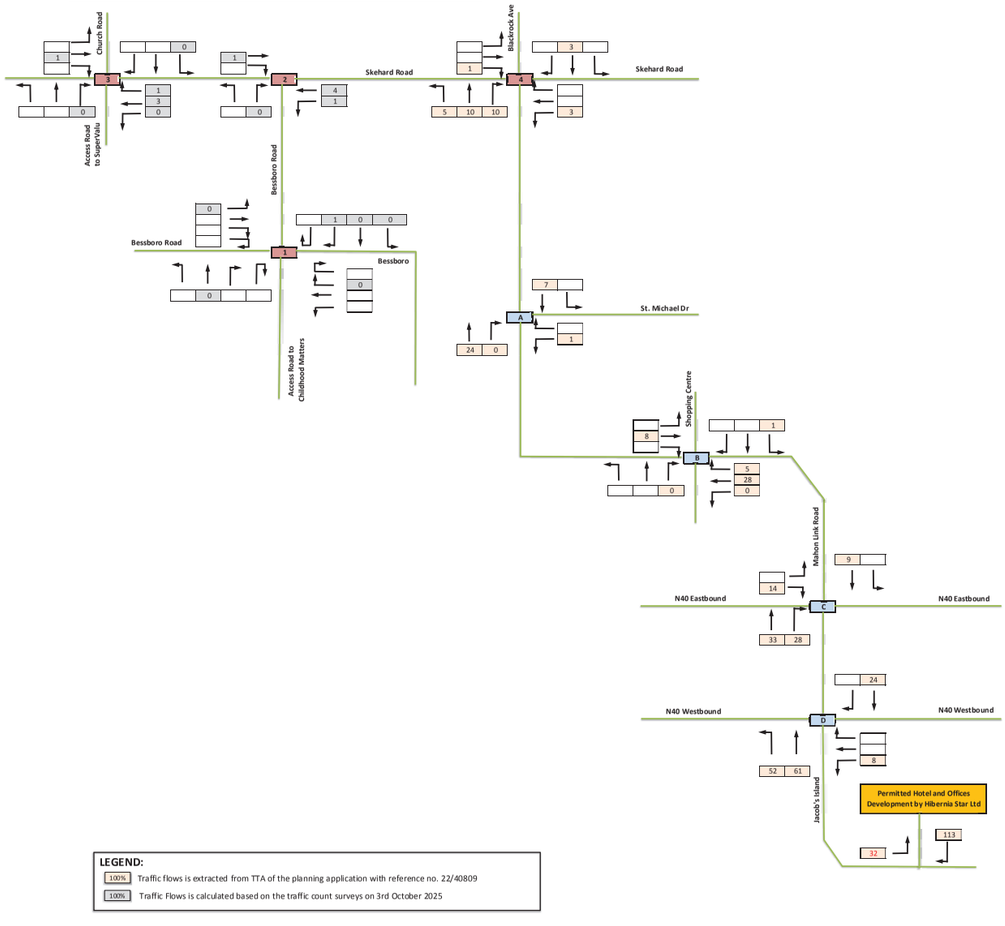
Note: * *The factors for apartment units and GFA of creche were extracted from the planning application with Reference: 21/40196. As amended by References: ABP-314310-22 and 24/43351, the apartment units were reduced from 204 to 196. It should be also noted that 204 apartments units, which is greater than the proposed apartment units (i.e. 196 units), was adopted for analysis and it represents the "worst-case" scenario.*
** *The arrival and departure rates for this permitted development were extracted from the planning application with Reference: 21/40196.*

Table 5 - Trip Generation for Permitted Residential Development (Clyde Real Estate Cork Ltd.)

APPENDIX 4 – TRIP GENERATION FOR THE PERMITTED DEVELOPMENTS



Permitted Development (Hotel and Office Development by Hibernia Star Ltd) - Trip Generation (PM Peak)

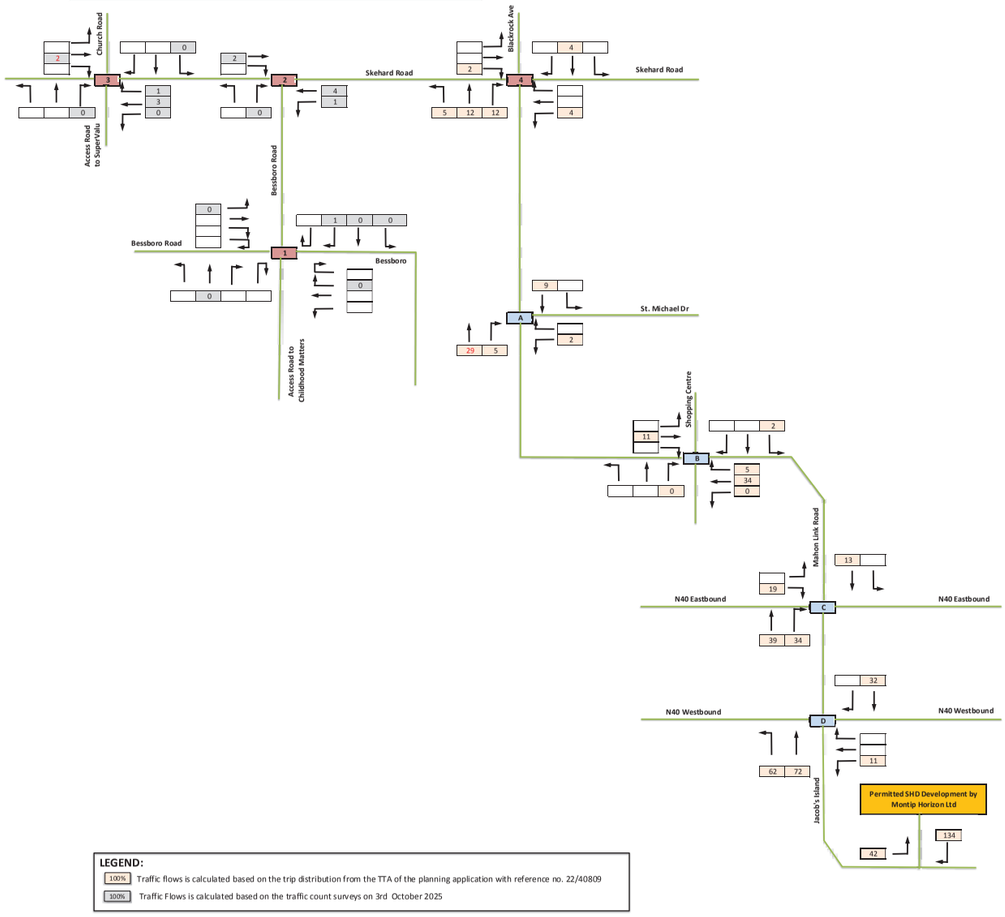


LEGEND:

100% Traffic flows is extracted from TTA of the planning application with reference no. 22/40809

100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025

Permitted Development (SHD Development by Montip Horizon Ltd.) - Trip Generation (AM Peak)



LEGEND:

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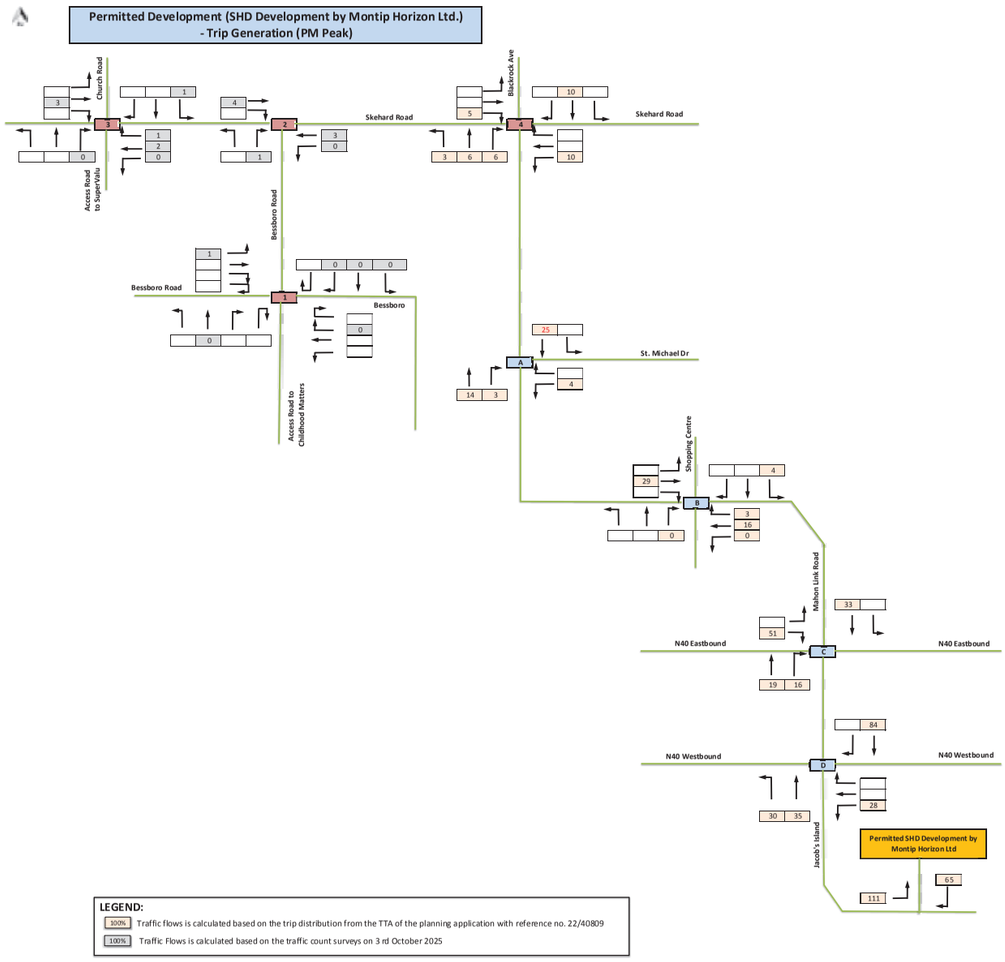
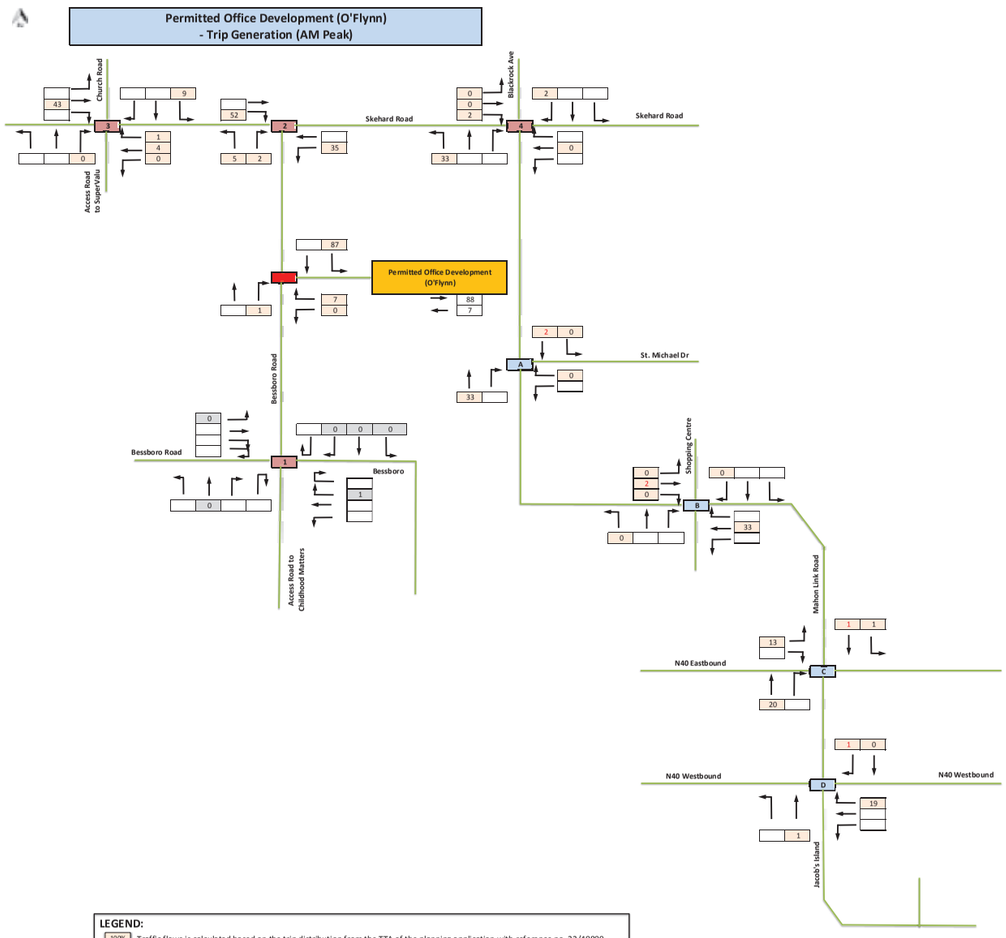
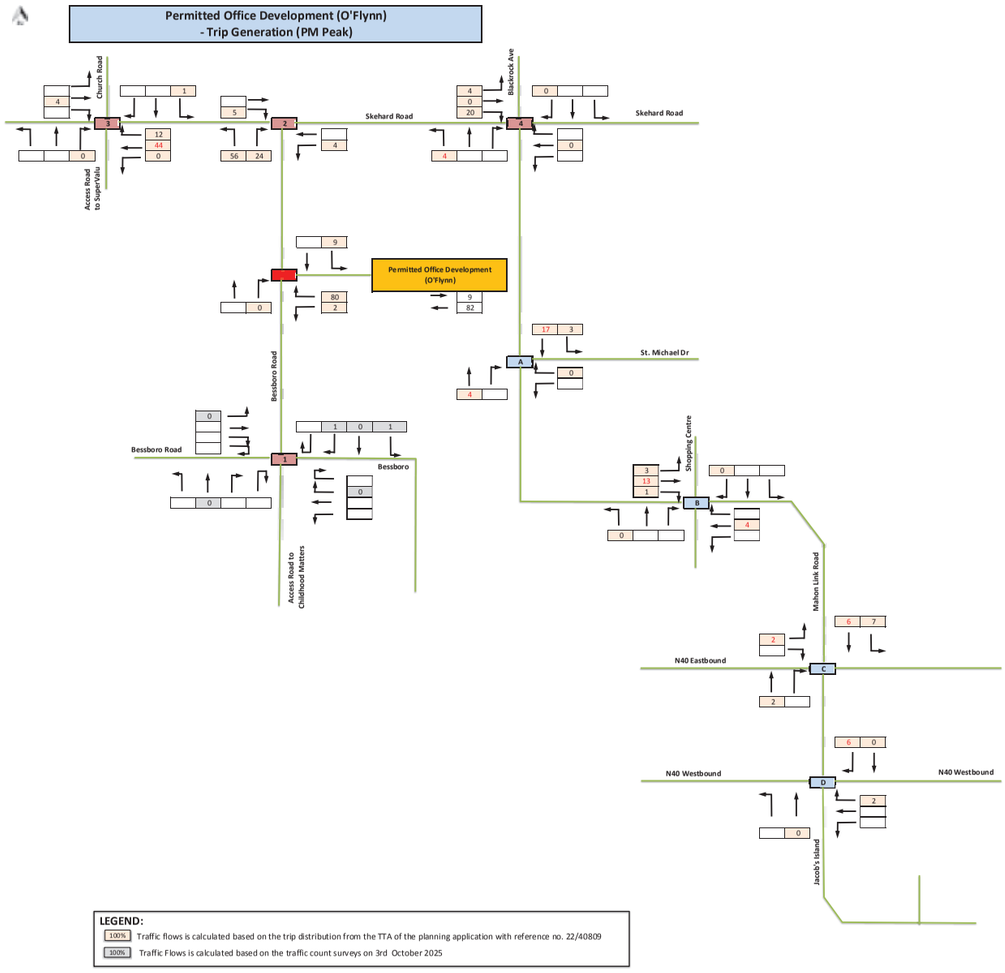
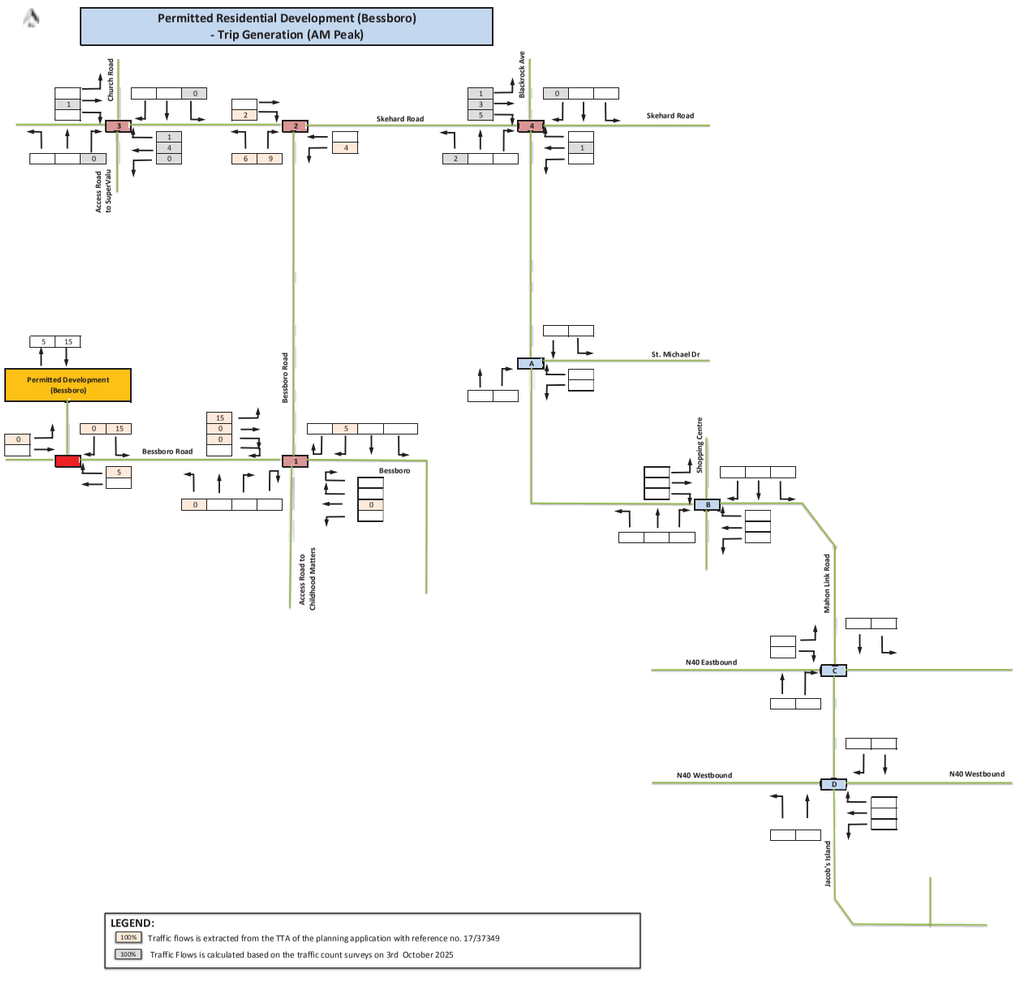
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025

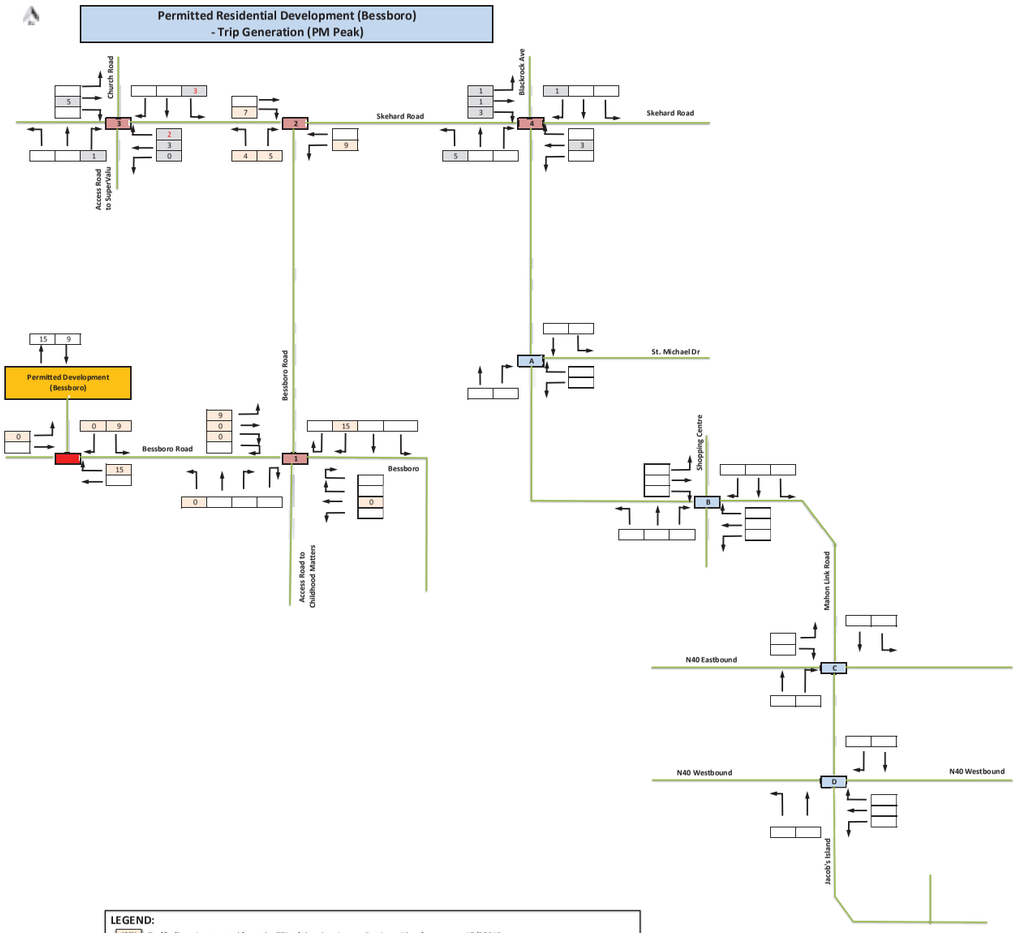

Permitted Development (SHD Development by Montip Horizon Ltd.)
- Trip Generation (PM Peak)
Church Road
Skehard Road
Blackrock Ave
Skehard Road
Access Road to SuperValu
Bessboro Road
Bessboro Road
Bessboro
Access Road to Childhood Matters
St. Michael Dr
Shopping Centre
Mahon Link Road
N40 Eastbound
N40 Eastbound
N40 Westbound
N40 Westbound
Jacob's Island
Permitted SHD Development by Montip Horizon Ltd
LEGEND:
100% Traffic flows is calculated based on the trip distribution from the TTA of the planning application with reference no. 22/40809
100% Traffic Flows is calculated based on the traffic count surveys on 3 rd October 2025


Permitted Office Development (O'Flynn)
- Trip Generation (AM Peak)
Church Road
Skehard Road
Blackrock Ave
Skehard Road
Access Road to SuperValu
Permitted Office Development (O'Flynn)
Bessboro Road
Bessboro Road
Bessboro
Access Road to Childhood Matters
St. Michael Dr
Shopping Centre
Mahon Link Road
N40 Eastbound
N40 Eastbound
N40 Westbound
N40 Westbound
Jacob's Island
LEGEND:
100% Traffic flows is calculated based on the trip distribution from the TTA of the planning application with reference no. 22/40809
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025


Permitted Office Development (O'Flynn)
- Trip Generation (PM Peak)
Church Road
Access Road to SuperValu
Skehard Road
Blackrock Ave
Skehard Road
Permitted Office Development (O'Flynn)
Bessboro Road
St. Michael Dr
Bessboro Road
Bessboro
Access Road to Childhood Matters
Shopping Centre
Mahon Link Road
N40 Eastbound
N40 Westbound
N40 Westbound
Jacob's Island
LEGEND:
100% Traffic flows is calculated based on the trip distribution from the TTA of the planning application with reference no. 22/40809
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025


Permitted Residential Development (Bessboro)
- Trip Generation (AM Peak)
Church Road
Access Road to SuperValu
Skehard Road
Blackrock Ave
Skehard Road
Permitted Development (Bessboro)
Bessboro Road
St. Michael Dr
Bessboro Road
Bessboro
Access Road to Childhood Matters
Shopping Centre
Mahon Link Road
N40 Eastbound
N40 Westbound
N40 Westbound
Jacob's Island
LEGEND:
100% Traffic flows is extracted from the TTA of the planning application with reference no. 17/37349
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025

Permitted Residential Development (Bessboro)
- Trip Generation (PM Peak)



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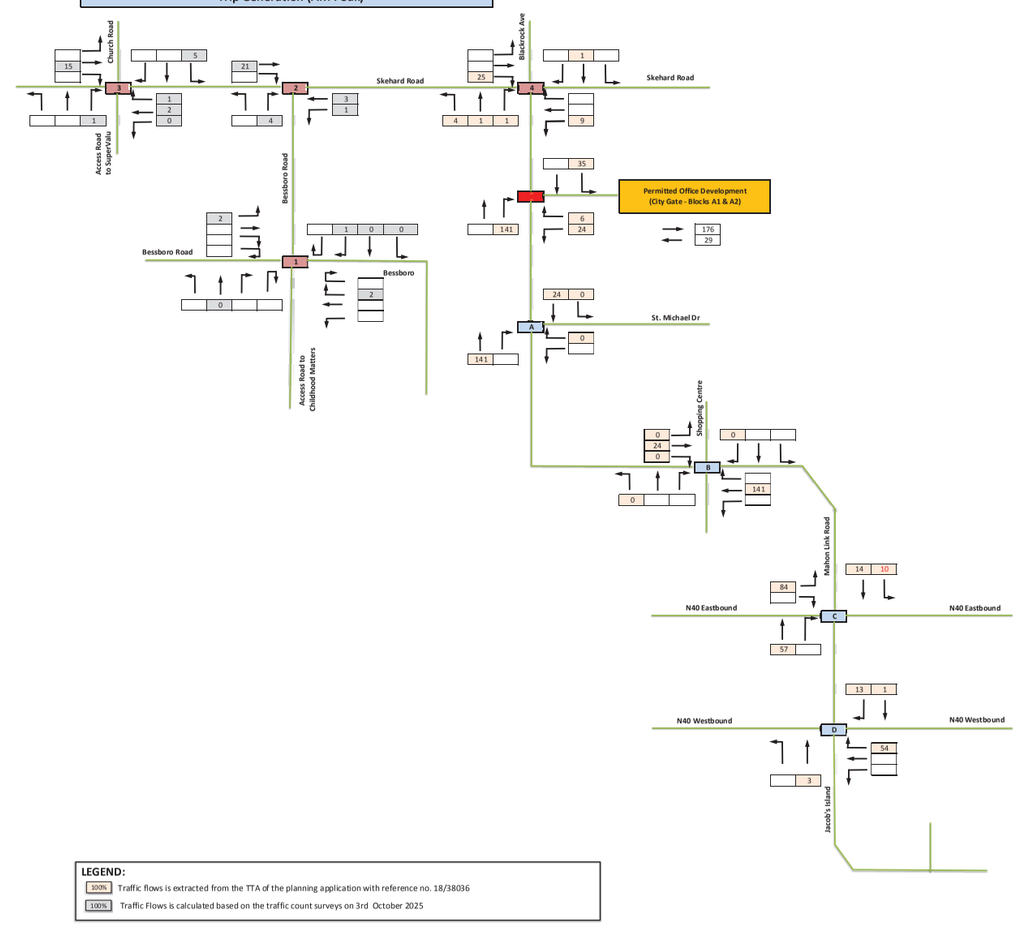
Permitted Office Development (City Gate)
- Trip Generation (AM Peak)



LEGEND:

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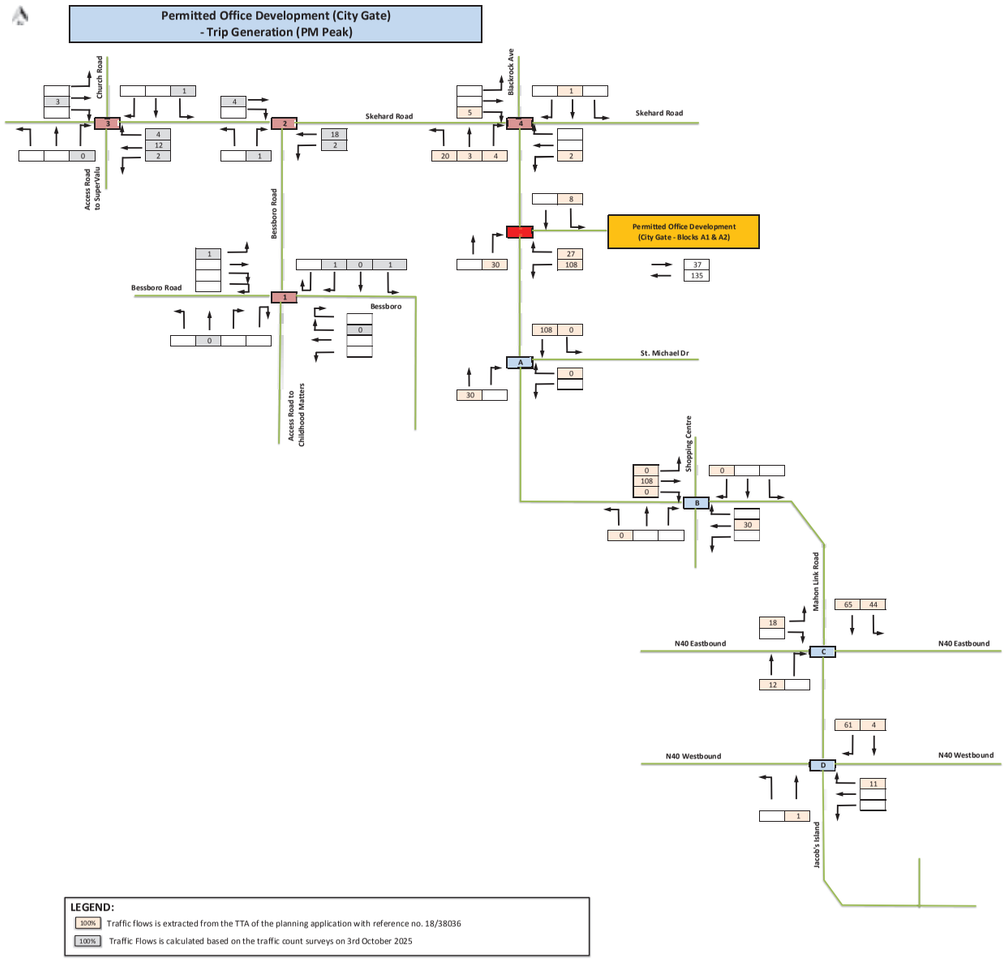
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025


Permitted Office Development (City Gate)
- Trip Generation (PM Peak)
Church Road
Access Road to SuperValu
Skehard Road
Blackrock Ave
Skehard Road
Bessboro Road
Permitted Office Development (City Gate - Blocks A1 & A2)
Bessboro Road
Bessboro
Access Road to Childhood Matters
St. Michael Dr
Shopping Centre
Mahon Link Road
N40 Eastbound
N40 Eastbound
N40 Westbound
N40 Westbound
Jacob's Island
LEGEND:
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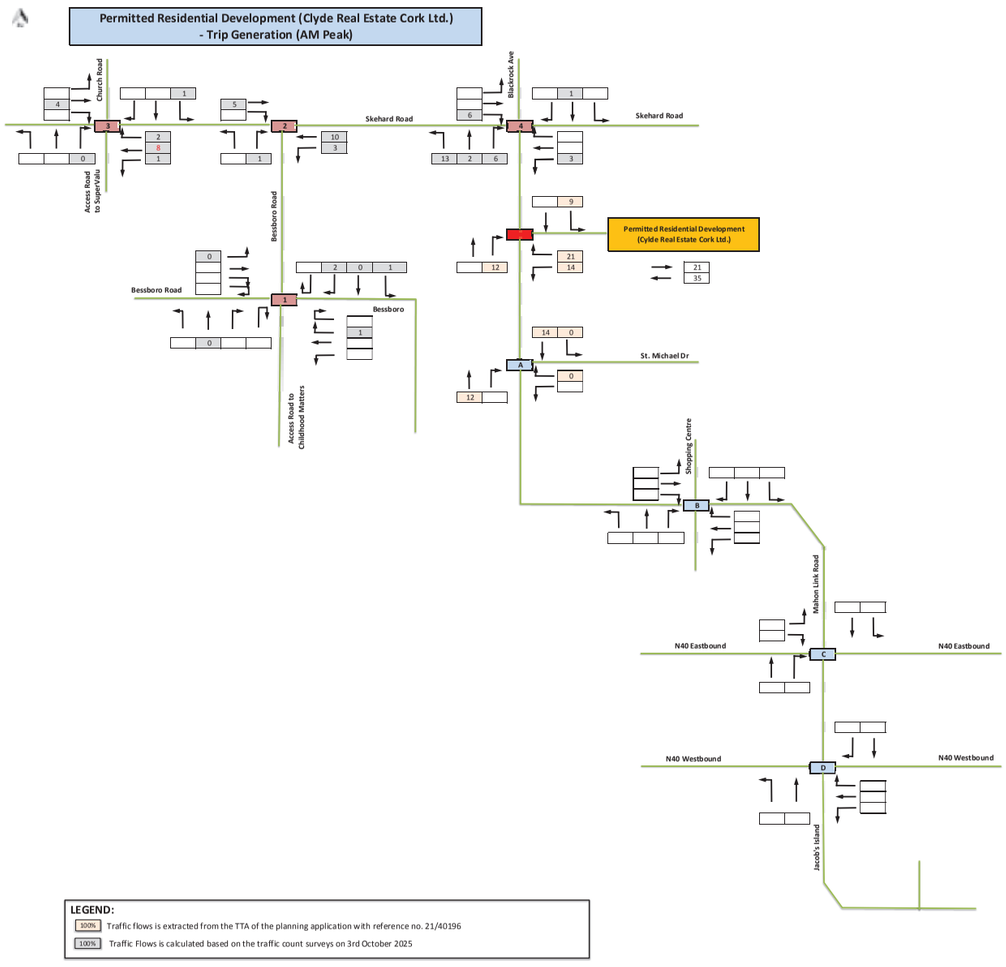
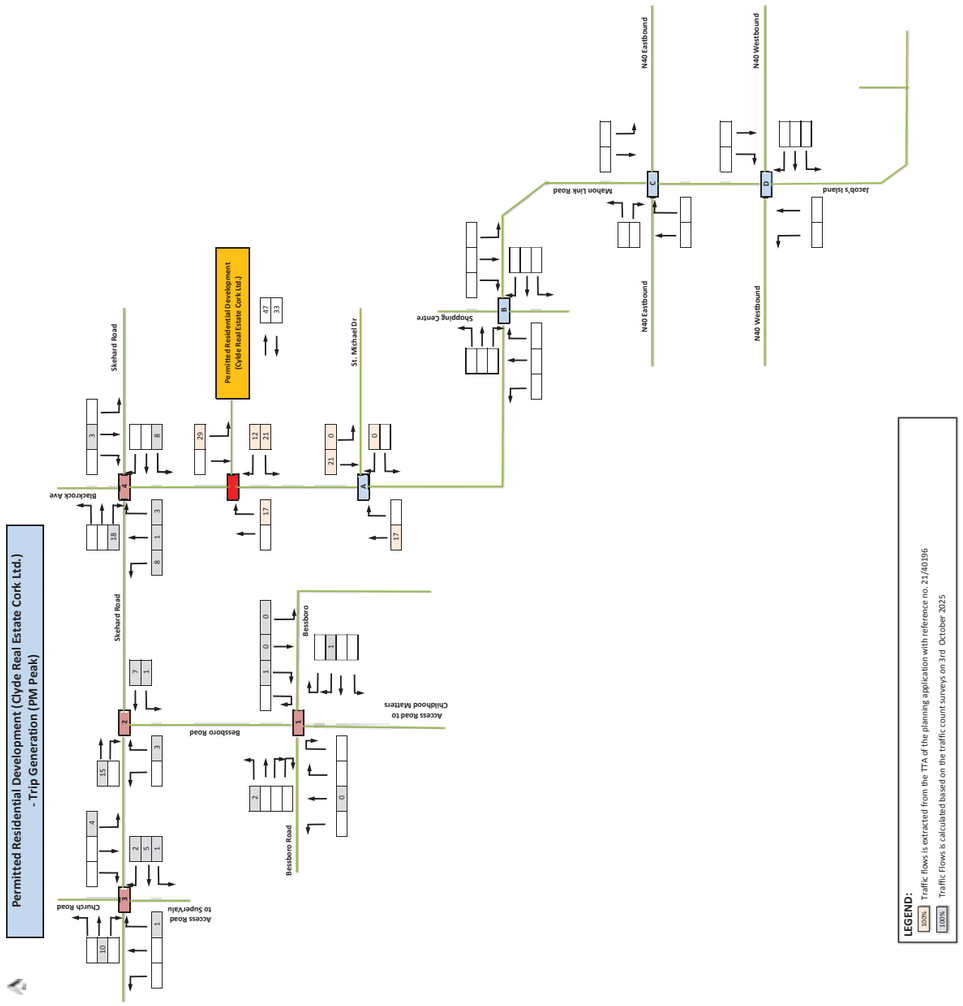
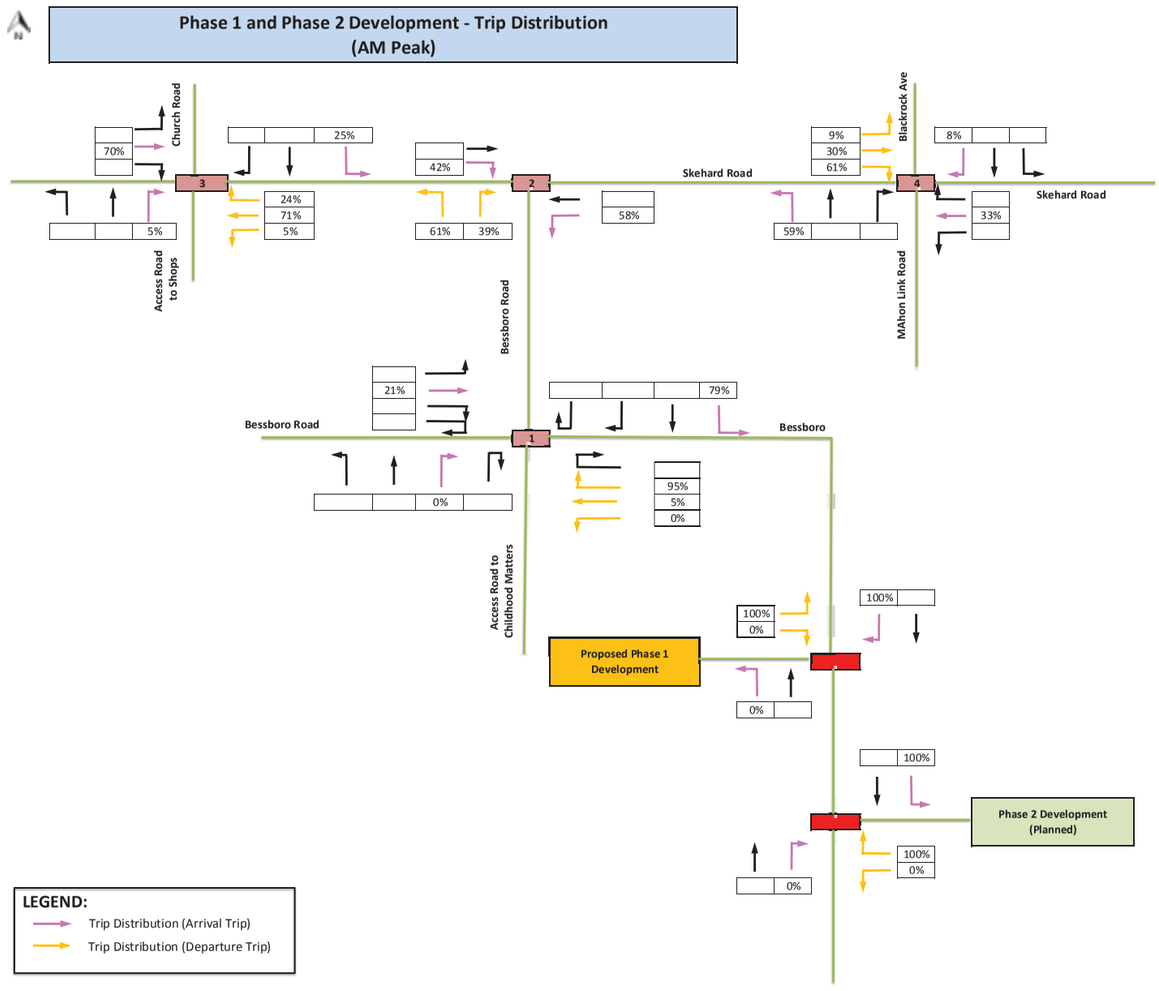
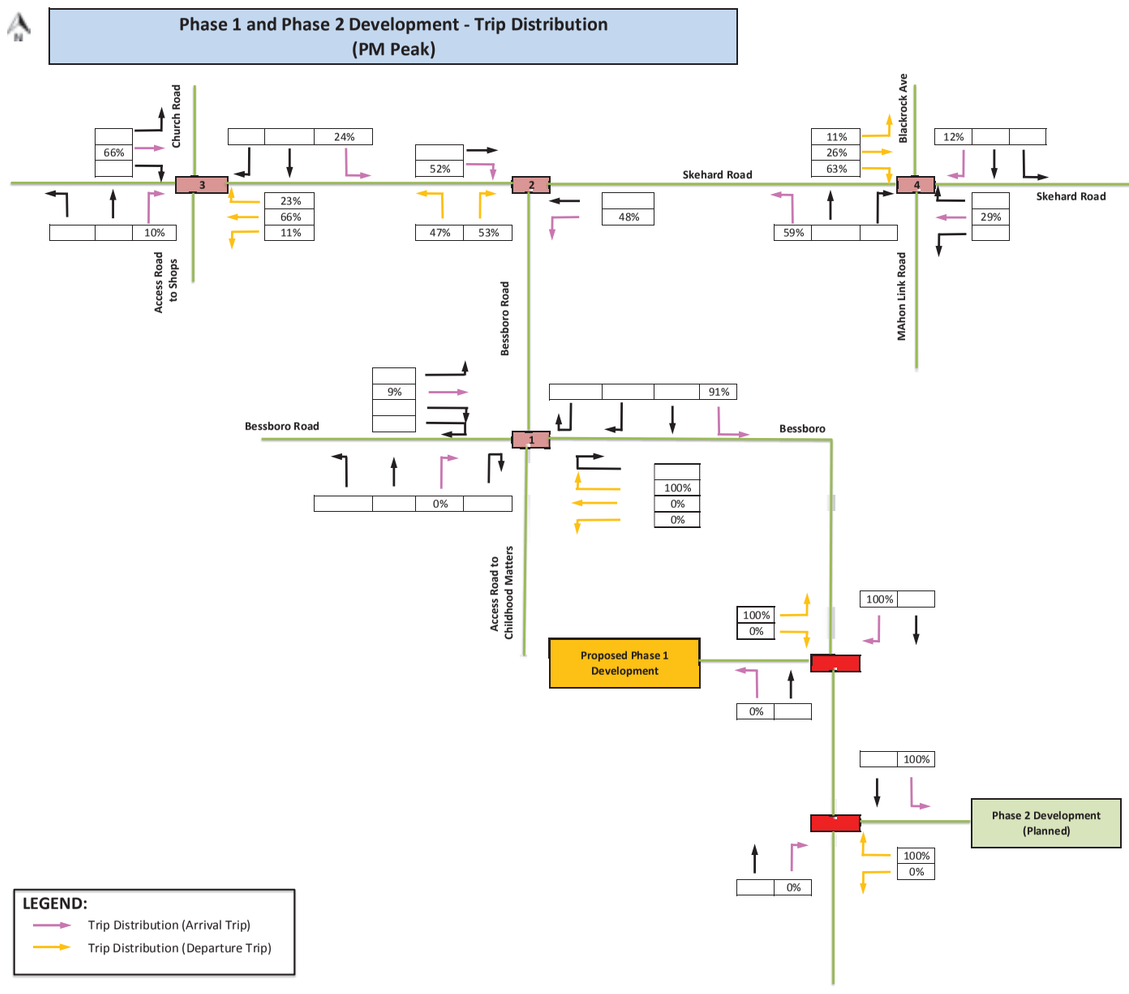
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025


Permitted Residential Development (Clyde Real Estate Cork Ltd.)
- Trip Generation (AM Peak)
Church Road
Access Road to SuperValu
Skehard Road
Blackrock Ave
Skehard Road
Bessboro Road
Permitted Residential Development (Cylde Real Estate Cork Ltd.)
Bessboro Road
Bessboro
Access Road to Childhood Matters
St. Michael Dr
Shopping Centre
Mahon Link Road
N40 Eastbound
N40 Eastbound
N40 Westbound
N40 Westbound
Jacob's Island
LEGEND:
100% Traffic flows is extracted from the TTA of the planning application with reference no. 21/40196
100% Traffic Flows is calculated based on the traffic count surveys on 3rd October 2025

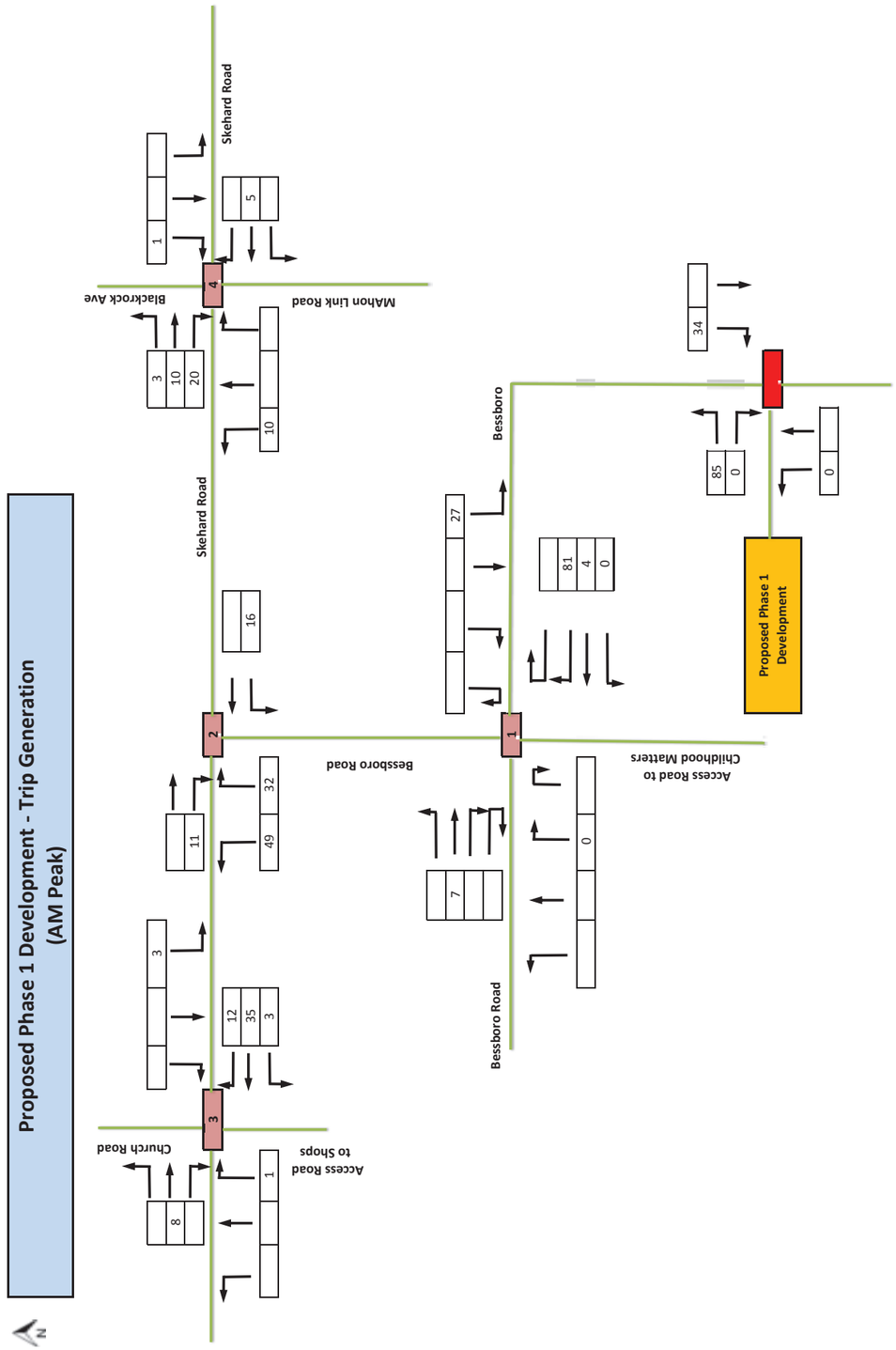
APPENDIX 5 – TRIP DISTRIBUTION FOR PHASE 1 AND PHASE 2 DEVELOPMENTS



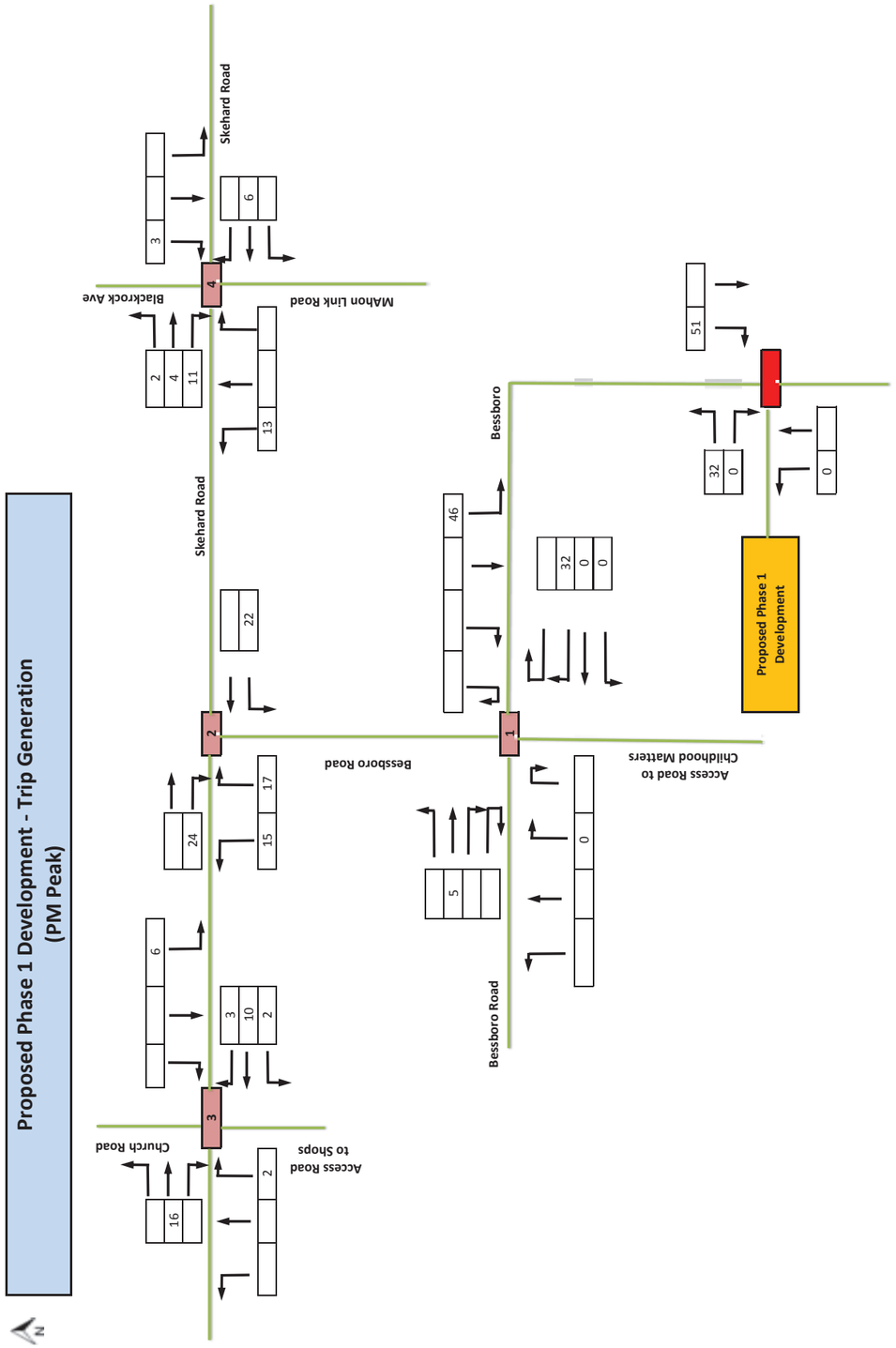

Phase 1 and Phase 2 Development - Trip Distribution
(AM Peak)
Church Road
70%
25%
3
24%
71%
5%
5%
Access Road
to Shops
42%
2
61%
39%
58%
Skehard Road
9%
30%
61%
Blackrock Ave
4
8%
33%
59%
Skehard Road
MAhon Link Road
Bessboro Road
21%
Bessboro Road
1
79%
Bessboro
95%
5%
0%
0%
Access Road to
Childhood Matters
Proposed Phase 1
Development
100%
0%
100%
0%
100%
Phase 2 Development
(Planned)
100%
0%
0%
LEGEND:
Trip Distribution (Arrival Trip)
Trip Distribution (Departure Trip)


Phase 1 and Phase 2 Development - Trip Distribution
(PM Peak)
Church Road
66%
24%
3
23%
66%
11%
10%
Access Road
to Shops
52%
2
47%
53%
48%
Skehard Road
11%
26%
63%
Blackrock Ave
4
12%
29%
59%
Skehard Road
MAhon Link Road
Bessboro Road
9%
Bessboro Road
1
91%
Bessboro
100%
0%
0%
0%
Access Road to
Childhood Matters
Proposed Phase 1
Development
100%
0%
100%
Phase 2 Development
(Planned)
100%
0%
0%
LEGEND:
Trip Distribution (Arrival Trip)
Trip Distribution (Departure Trip)

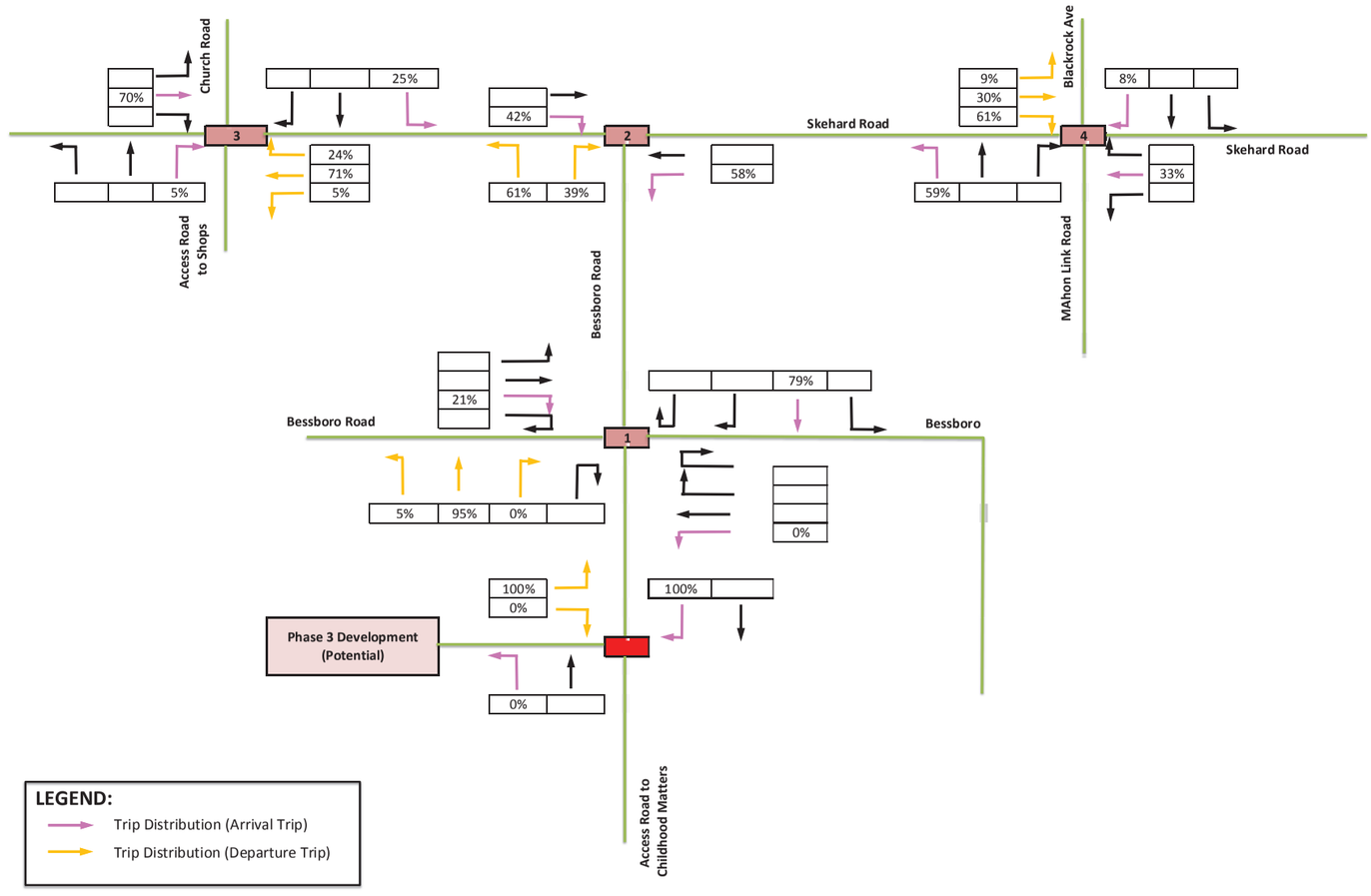
APPENDIX 6 – TRIP GENERATION FOR THE PROPOSED PHASE 1 DEVELOPMENT



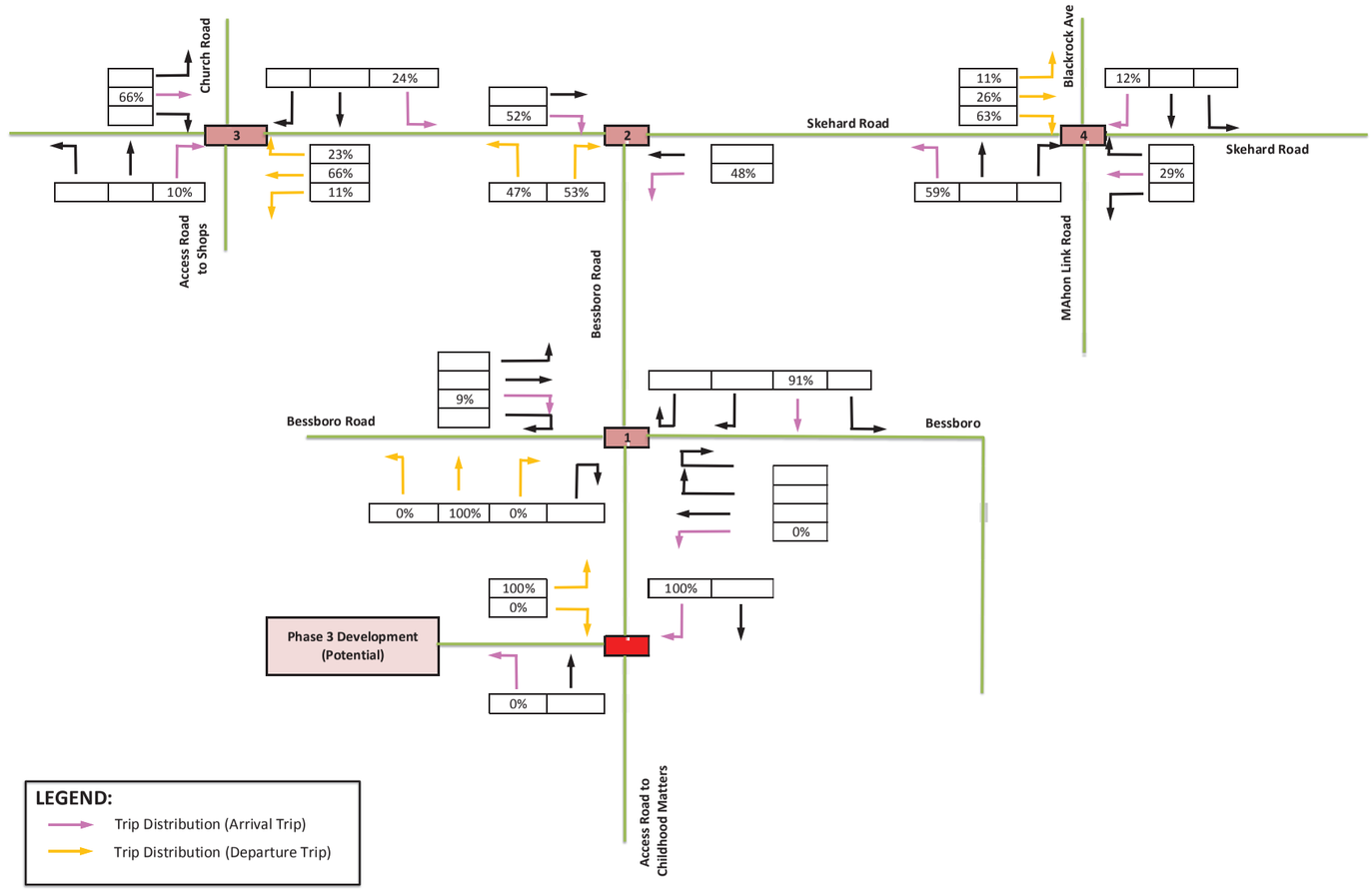
APPENDIX 7 – TRIP DISTRIBUTION FOR PHASE 3 DEVELOPMENT



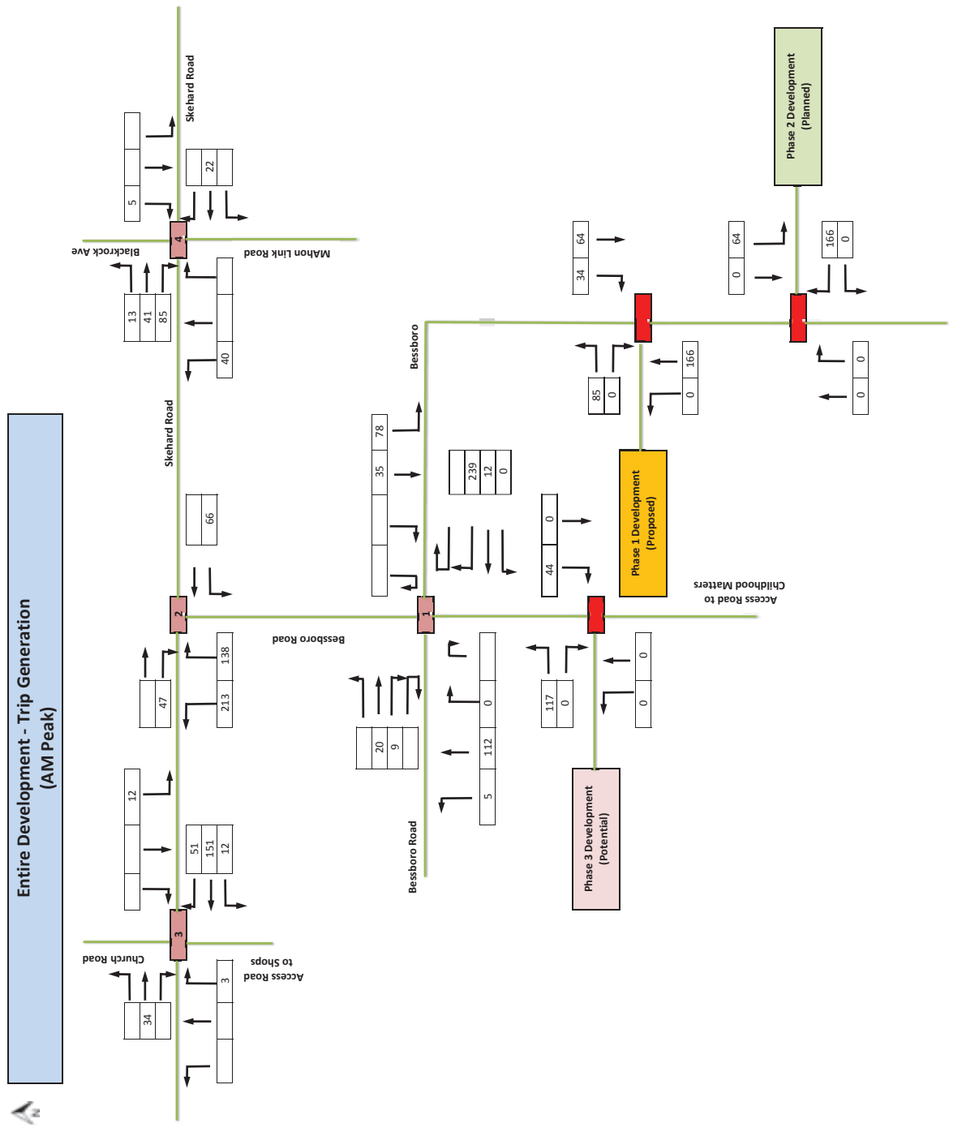
Phase 3 Development - Trip Distribution (AM Peak)

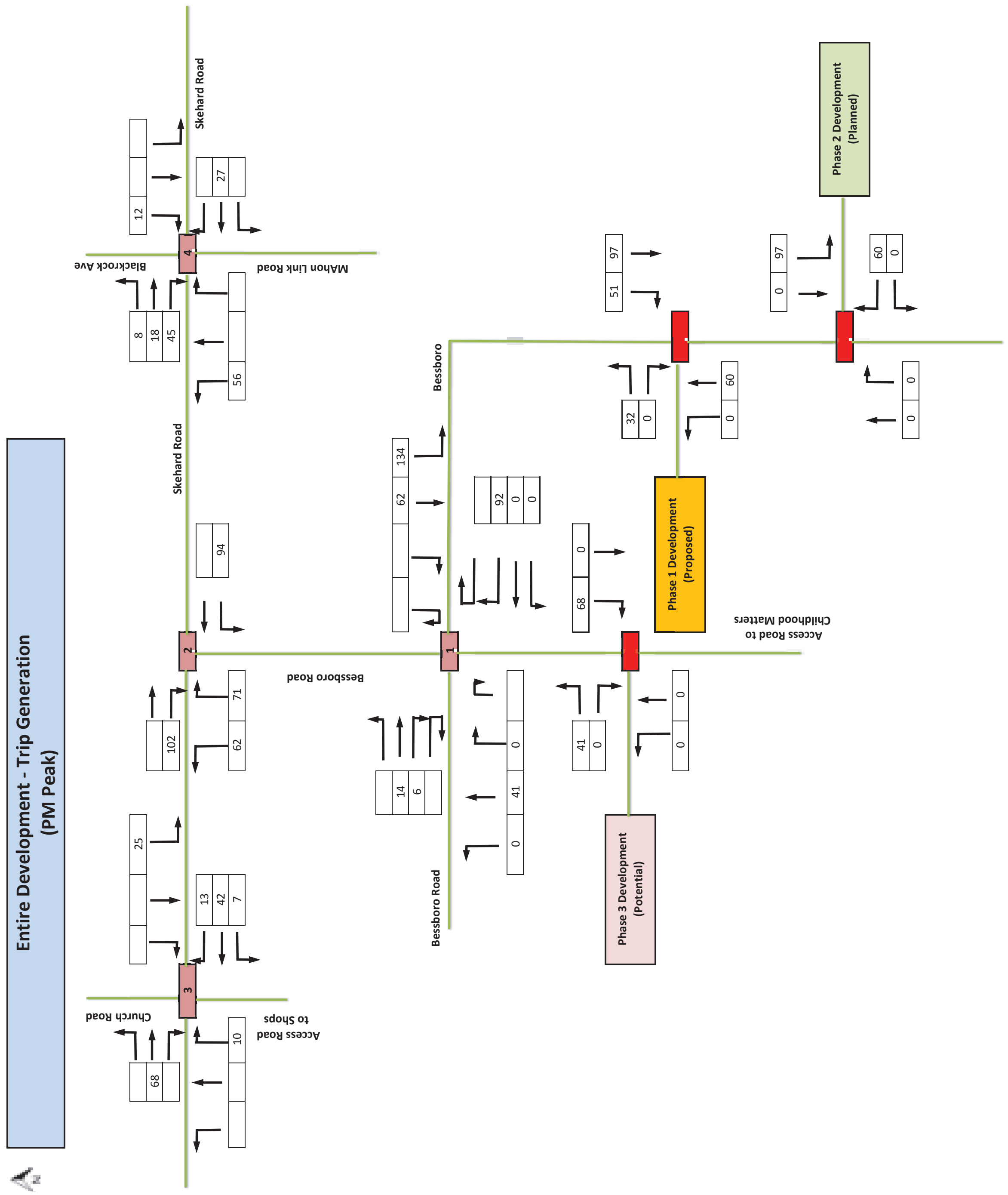


Phase 3 Development - Trip Distribution (PM Peak)



APPENDIX 8 – TRIP GENERATION FOR THE ENTIRE DEVELOPMENT





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- Appendix 5-2 – Mobility Management Plan

Document Information

GENERAL INFORMATION

Client:	Estuary View Enterprises 2020 Ltd
Project Title:	Phase 1 LRD Development at 'The Farm', Bessborough, Ballinure, Cork
Report Title:	Mobility Management Plan
File Name:	25629-EEI-XX-XX-RP-CR-10014_Mobility_Management_Plan

HISTORY OF CHANGES

DOCUMENT REVISION			DOCUMENT VERIFICATION			
Issue Date (DD/MM/YY)	Revision	Suitability	Author(s)	Reviewer(s)	Approver(s)	Peer Review (or N/A)
05/12/2025	P01	S3	POKL	TF	TF	

PHASE 1 LRD DEVELOPMENT AT 'THE FARM', BESSBOROUGH, BALLINURE, CORK

Mobility Management Plan

05 December 2025

Formerly JB Barry & Partners who became part of Egis in 2023.

1 INTRODUCTION

1.1 General

Egis were engaged by Estuary View Enterprises 2020 Ltd to prepare a Mobility Management Plan (MMP) to support an LRD planning application at 'The Farm', Bessborough, Ballinure, Cork. This document is being prepared with the objective of delivering a modal shift for the operational development by developing a sustainable transportation policy for residents.

This MMP has been prepared in accordance with the requirements of the Cork City Development Plan and the Cork Metropolitan Area Transport Strategy 2040 (CMATS). The relevant maps from each plan can be found in Appendix 1 and Appendix 2 respectively.

A mobility management plan is best described as a package of measures put in place to encourage and support sustainable travel patterns amongst the users of the proposed development. The aim is to reduce the demand and use of the private car and to highlight and facilitate the use of alternative modes of transport. The focus in this instance is on commuting residents with the following objectives:

- To inform residents of alternative modes of travel available to them for their journeys.
- To promote healthier, stress-free and cheaper options of commuting for residents.
- Enhance the environment of the development, improve accessibility and outline the potential advantages to residents.
- To reduce trip generation to and from the site thus reducing parking demand and traffic flow.

The proposed development is enclosed within the redline boundary as indicated in Figure 1-1 below.

FIGURE 1-1: LOCATION OF PROPOSED DEVELOPMENT

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1.2 Proposed Development

The proposed development provides for the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structures and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: Block C (9 no. 1-bedroom and 25 no. 2-bedroom over 3 storeys), Block D (34 no. 1-bedroom & 24 no. 2-bedroom over 3-4 storeys), Block E (27 no. 1-bedroom, 20 no. 2-bedroom & 1 no. 3-bedroom over 4-5 storeys). It is proposed to use retained Block A and Block B for resident amenities which include home workspace, library, lounge and function space.

The proposed development also includes a new pedestrian/cycle bridge over the adjacent Blackrock to Passage Greenway which will provide connections to/from the R852 Mahon Link Road to the east of the site and to the Mahon area generally.

The proposal includes for new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessborough Road.

Cork City Council have plans to improve pedestrian and cycle connections to Skehard Road as part of the Bessborough to Mahon Pedestrian and Cycle Safety Scheme and the proposed pedestrian entrance to The Farm can tie-into these proposed public road improvements and provide enhanced connectivity to/from the proposed development.

The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessborough Road.

The proposed development is ideally located with good connectivity to the surrounding area. Its location makes the working centres of Mahon Point, Mahon Industrial Estate, Mahon Retail Park, Blackrock Business Park, and Cork City very accessible whilst also providing an easy walking distance to amenities including Mahon Point Shopping Centre, Mater Private Hospital and Scally's Supervalu.

A detailed description of the proposed development is provided in the Planning Report and enclosed with the submission package.

2 MOBILITY MANAGEMENT PLAN

There are many benefits associated with the use of alternative modes of travel including improved accessibility, reduced commuter costs, more reliable journey times and less congestion on the network for those who have no choice but to use the car (school runs prior to work etc.). In addition, there are also health benefits for those walking and cycling as well as an overall decrease in stress levels associated with driving and waiting in traffic.

Peak hour congestion on our roads network is now an accepted norm with up to 90% of car journeys having a single occupier and 80% of all car journeys to and from work by private car. Car-sharing, public transport use or walking (even once a week) could dramatically change this figure.

To facilitate the necessary change in our approach to commuting, the travelling public will be required to make changes. Alternative modes of travel need to be actively promoted and participation in car-pooling, cycling and walking groups supported by a Mobility Management Plan Steering Committee. The public must be presented with an alternative to using the motor car and encouraged to do so.

The Government also has a role to play in changing current commuting practices. The provision of a better public transport system by fast-tracking bus quality corridors, the provision of cycle lane facilities and the implementation of tax-saver policies on commuter tickets are just some of the areas where the Government can play their part. There are many examples in other cities and towns around the world where the use of the car is penalised, be it a city centre roads tax or the taxing of car spaces as benefit in kind. Policies such as these may seem dramatic however they do have an overall benefit to the moving of goods and people within the city/town environ. The resulting savings to business and habitants can be significant as congestion and journey times reduce.

3 PUBLIC TRANSPORT INFRASTRUCTURE

3.1 Current Public Transport Infrastructure

As part of this MMP, an assessment of the existing sustainable transport infrastructure in the area was undertaken. A number of public bus routes serve the site including the 202, 215, 215A, and 219 all of which avail of the recently upgraded facilities along Skehard Rd. Additionally, after completion of the proposed new pedestrian / cycle bridge over the adjoining Passage West Greenway to the west, it will provide an alternative and a faster way to the bus stops at Mahon Link Road. These routes provide a high level of service and frequency to the site. Figure 3-1 shows the current operating bus routes within the vicinity of the development.

All of the above bus routes can be accessed via bus stops located on Skehard Road, with bus stops located circa 90.0m from its junction with Bessboro Road. From Figure 3-2, we can see that each bus is circa a 9 min walk (700m).

These public bus services will also be Accessible on Mahon Link Road when the proposed bridge over the adjacent Greenway is in place.

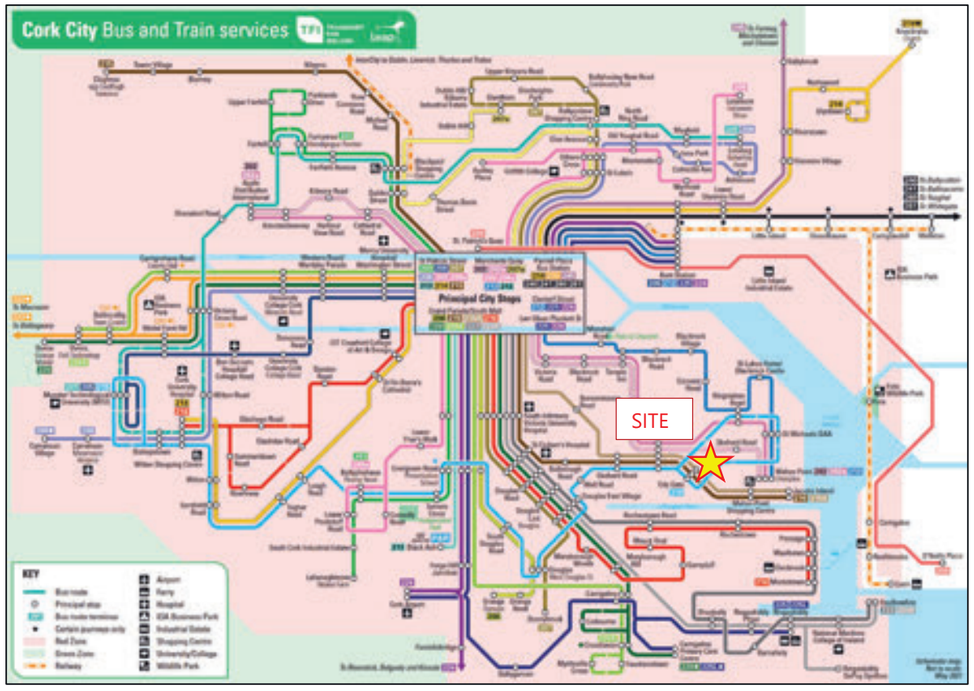


FIGURE 3-1: CURRENT BUS EIREANN CORK CITY SERVICES NETWORK MAP AND ROUTES

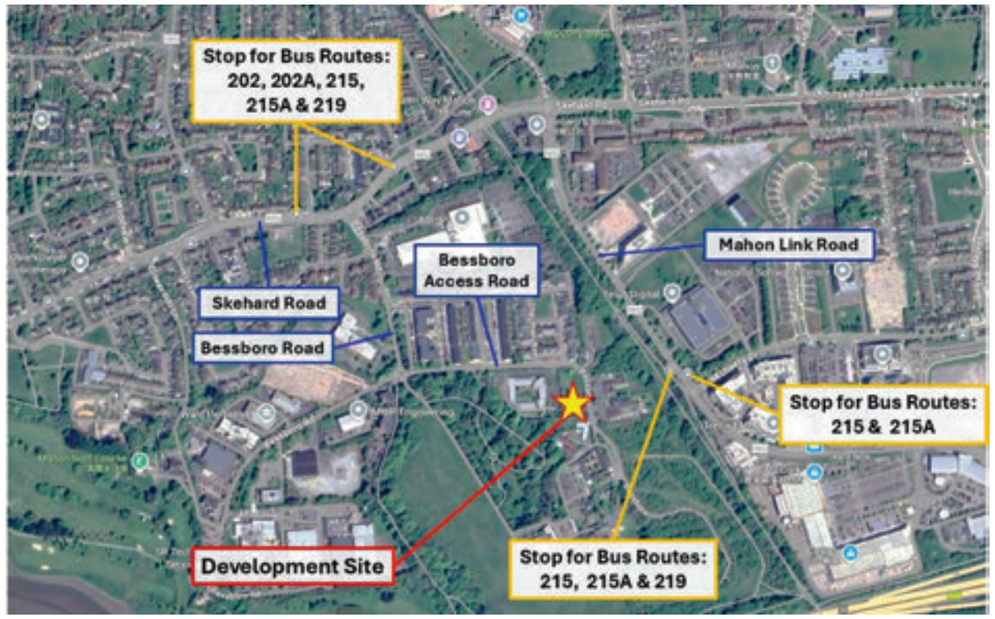


FIGURE 3-2: CURRENT BUS STOP LOCATIONS

The following isochrone map shows the areas currently accessible by public transport based on time of travel from the site. Note: The distances include transfers to different services so are indicative only (delay may be experienced during transfer).

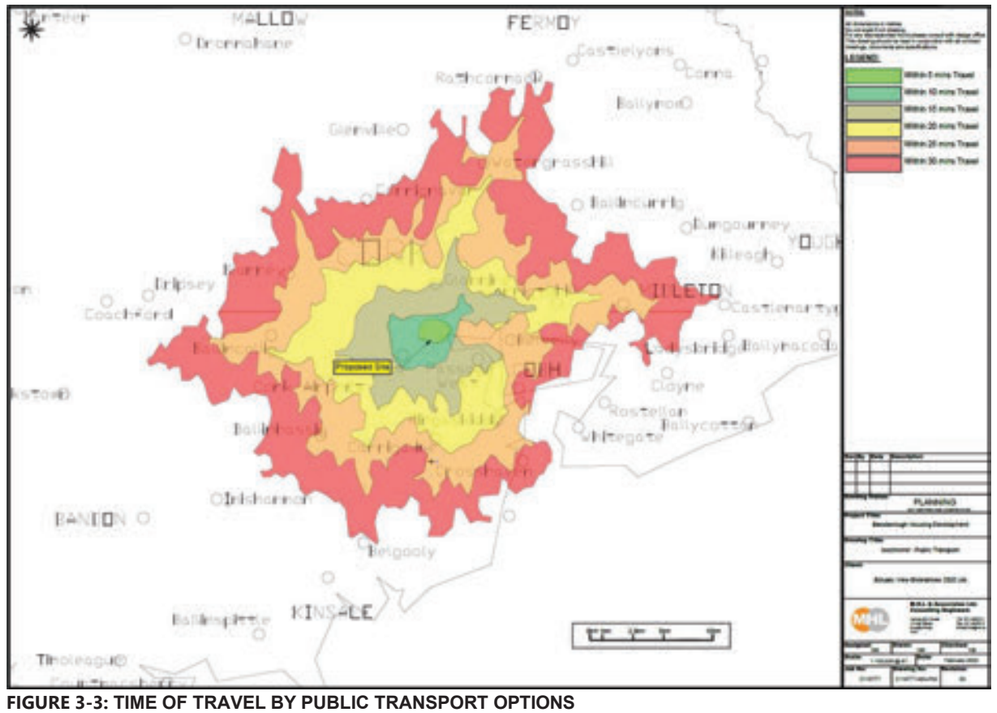


FIGURE 3-3: TIME OF TRAVEL BY PUBLIC TRANSPORT OPTIONS

Evident from the above map is that current bus provision in the area allows travel to a wide area within 30 minutes, with many of the main employment centres being within the 20 minutes range. This is significantly shorter than CSO figures for other areas such as Dublin City 28.9 mins, South Dublin 30.6 mins, Waterford City & County 22.4 mins, Limerick City & County 24.2 mins. A commute time by public transport in excess of 45 mins results in a change in behavioural preference away from public transport. It can be concluded that the proposed development site by its location will encourage the use of public transport in-line with national policy.

3.2 Future Public Transport Infrastructure

According to the new design for the Cork Metropolitan Bus Network launched by NTA in June 2022, the new network, part of BusConnects Cork, is intended to transform the public transport network across the Cork Metropolitan Area by the creation of new bus routes and improving bus frequencies to help transform the public transport network to meet anticipated growth and future demand in the region. As a part of the BusConnects Scheme, four new bus routes are proposed in close proximity to the proposed development. Figures 3-3 and 3-4 taken from the latest BusConnects proposal, illustrates these new routes in the vicinity of the proposed development. It is proposed to introduce the following bus routes:

- Bus Route 3 will operate between Jacobs Island and Togher Road via Kent Station (with frequency of 15-30 minutes) and will pass via Mahon Link Road and Skehard Road;
- Bus Route 16 will operate between Cork University Hospital and Jacobs Island (with frequency of 15-30 minutes) and between Cork University Hospital and Little Island (with frequency of 30 minutes), and will pass via Mahon Link Road and Skehard Road;
- Bus Route 1 will operate between Ovens (Dell EMC) and Mahon Point (with frequency of 10-60 minutes) and will pass via Skehard Road; and
- Bus Route 25 will operate between Bessboro and Mayfield (Boherboy Road) (with frequency of 60 minutes) and will pass via Bessboro Road and Skehard Road.

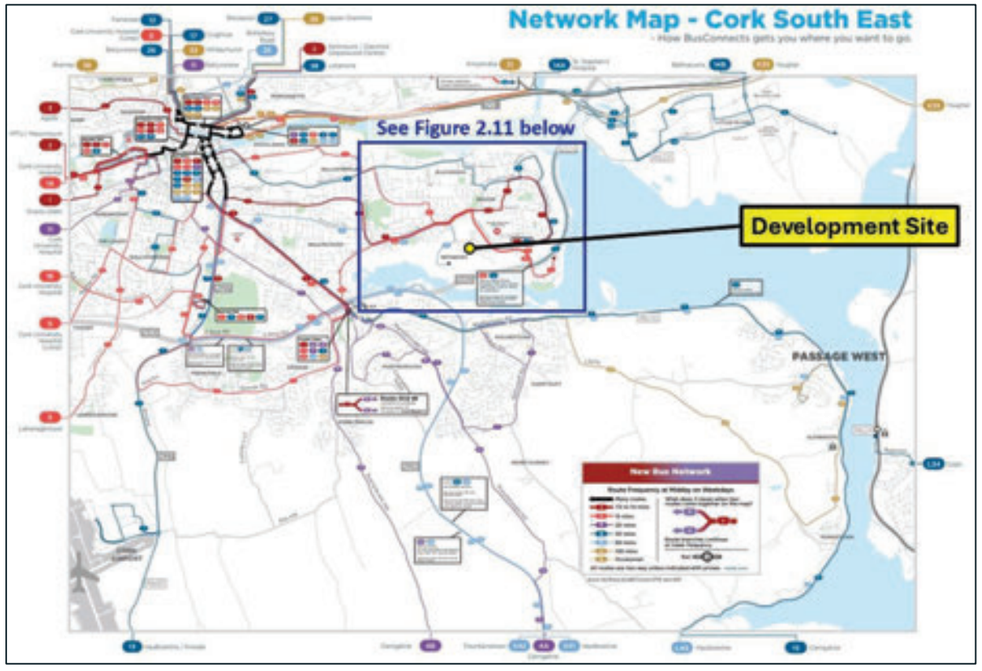


FIGURE 3-3 – BUSCONNECTS NETWORK MAP SHOWING THE SITE LOCATION

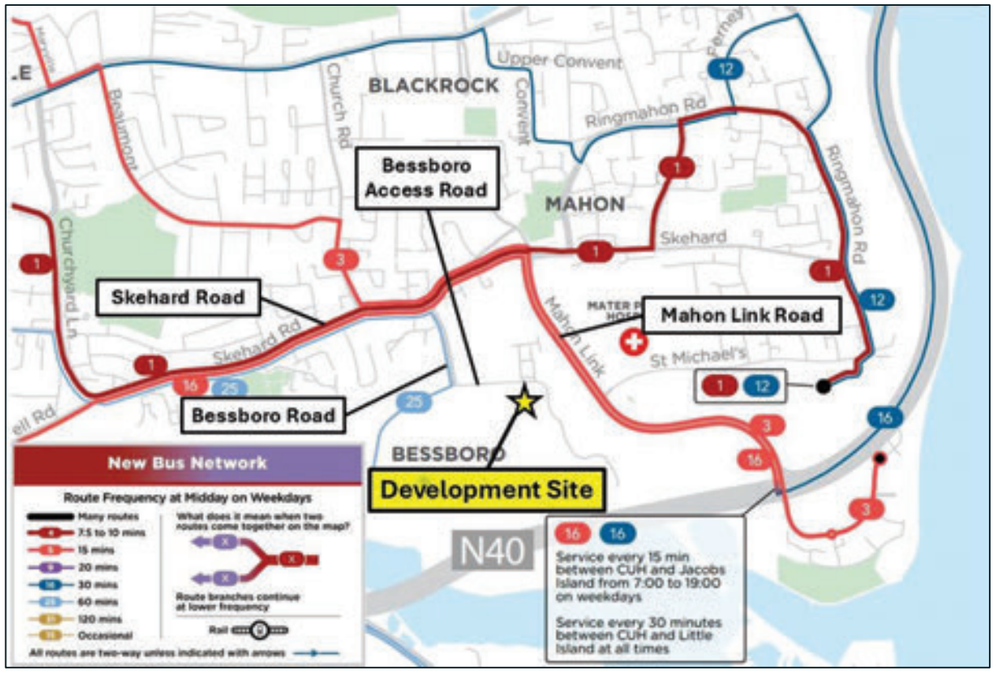


FIGURE 3-4 – PROPOSED BUSCONNECTS ROUTES IN THE VICINITY OF THE PROPOSED DEVELOPMENT

The Cork City Development Plan (2022-2028) also makes specific references to a proposed Light Rail Transit (LRT) to connect Ballincollig to Mahon via Cork City Centre to support future development (refer to Figure 3-5). It should be noted that the proposed location of a new Greenway Luas stop is close to the St. Michael's Drive / Mahon Link Road Junction. After completion of the new pedestrian / cycle bridge over the adjoining Passage West Greenway to the west, the new Greenway Luas stop is located approximately 600 metres walking distance (approximately 7-minute walk or a 3-minute cycle) from the proposed development.

4 CYCLE FACILITIES

4.1 Existing Cycle Infrastructure

The site is located in close proximity to the Blackrock to Passage West railway greenway and benefits greatly from recent improvement works to cycle infrastructure in the area. The recent upgrade works along Skehard Road. have included the provision of cycle lanes enhancing the safety of cyclists travelling the local road network. Figure 4-1 shows the existing permeability for cyclists for a range of distances from the site.

The proposed development includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas.

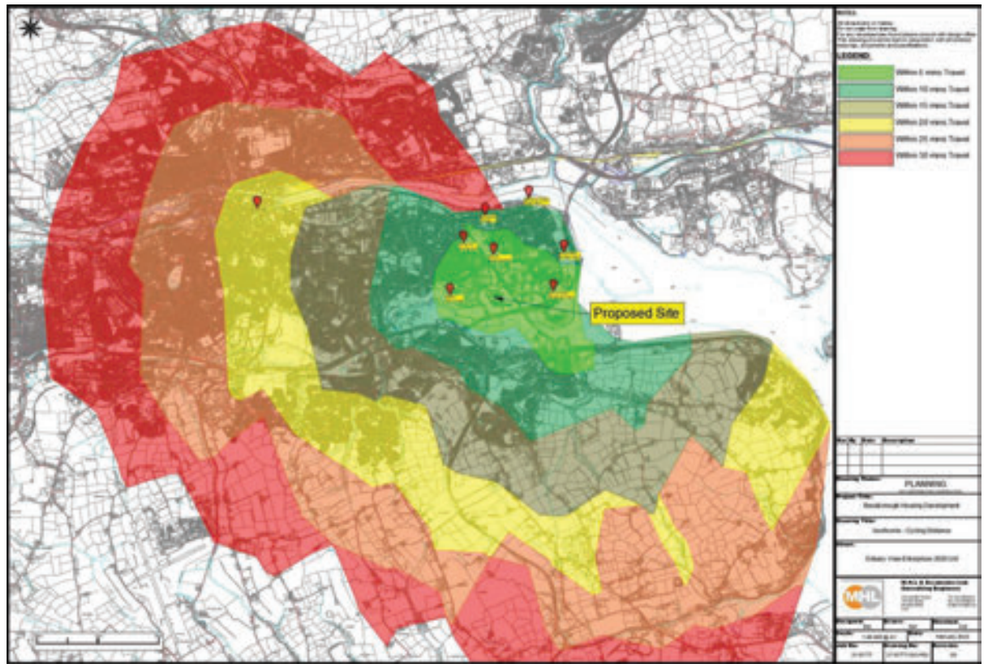


FIGURE 4-1: PROPOSED DEVELOPMENT: CYCLE DISTANCE TO LOCAL AREA

The cycle range presented relates to the average distance travelled in a specific time (16-19 km/hr). Cork City Centre falls within the 20 min category based on unrestricted flow through junctions. The 30 mins range includes all of the city including the surrounding suburbs. Note that the travel speed used is on the low side, an experienced cyclist would have a 26-30km/hr average speed, however the speed used is more reflective of the topography in and around Cork City. It should also be noted that as a result of the aforementioned topography the inbound from the site to, say the City Centre, would be considerably quicker than the outbound trip, so on average it is considered that the speed used is appropriate.

4.2 Proposed Cycle Infrastructure

The 2015 Metropolitan Cycle Plan has been incorporated into Cork Metropolitan Area Transport Strategy (CMATS) and will inform the City Council's cycling strategy. This Plan was devised to increase cycling mode share from a low base at the time of publication to provide a clear strategy for the development of the cycling network to encourage greater levels of cycling trips to places of employment, education, recreation, and leisure. Figure 4-2 shows an indicative 5-year Cork Cycle Network Map which includes routes to be progressed during the term of the Development Plan.

FIGURE 3-5 – PROPOSED LIGHT RAIL ROUTE AND STOPS

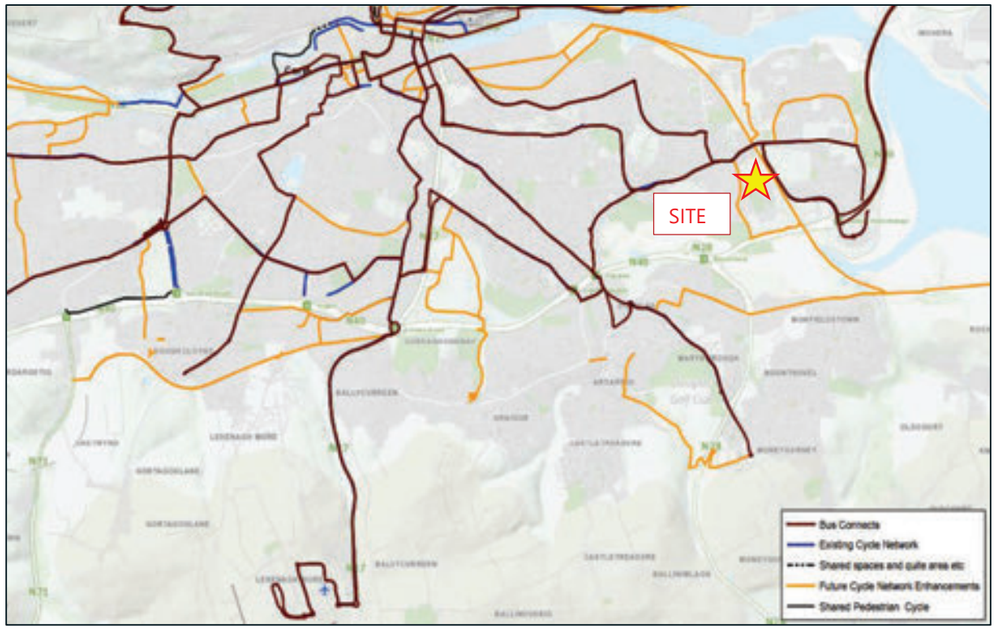


FIGURE 4-2: INDICATIVE 5 YEAR CORK CYCLE NETWORK MAP (DEVELOPMENT PLAN)

5 PARKING PROVISION

5.1 Car and Motorbike Parking Provision

It is proposed to provide the following parking within the development:

- 54 carparking spaces;
- 4 set-down spaces for the creche;
- 5 motorbike spaces;

The Cork City Development Plan 2022-2028 designated the site to be located in Zone 3 in terms of the parking standards which would give rise to the following parking requirements.

- 1-3 Bedroom Residential (139 No.): 1.25 spaces per unit = 173.75 spaces
- 3-3+ Bedroom Residential (1 No.): 2.25 spaces per unit = 2.25 spaces
- Creche: 1 space per 6 children

The proposed development will therefore provide 122 carparking spaces less (or 70%) than the Development Plan requirements for the residential component of this development. This reduced parking provision is in the context of the significant proximity and connectivity of the proposed development to existing and planned sustainable travel modes.

Provision for Disabled Car parking will be in line with the City Council Development plan with 5% of car parking spaces provided set aside for disabled car parking (3No). Provision for Electric Vehicle charging is in line with the City Council Development plan requirement (10% i.e. 6No).

5.2 Bicycle Parking

Paragraph 4.17 of the *Design Standard for New Apartments* considers the requirement for bicycle parking/storage and includes the following:

Quantity – a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units.

It is proposed to provide the following parking within the development:

- 230 cycle parking spaces for the residents; and
- 100 cycle parking spaces for visitors.

All indoor bike spaces provided are placed in secured rooms with outdoor bike spaces provided for in covered bike racks outside the buildings.

6 ALTERNATIVES

The development location allows the user a modal choice for commuting to the site. The benefits to the development site are direct and measurable however additional benefits to the wider community should not be ignored. A reduction in car trips implies reduced traffic congestion, enhanced air quality and reduced noise to the surrounding neighbourhood.

The types of modal choice investigated as part of the Walking and Cycling Audit carried out include:

- Pedestrian and cycling facilities near the site
- Public transport

In general, car usage patterns can be grouped between city centre sites and out of town sites. City centre or suburbs would range from 25% to 35% car usage with out-of-town sites higher at 65% to 90%. This scheme would fall into the former category however national policy related to climate change and sustainable travel are expected to impact on the current norms. This scheme is compatible with such policy.

Provision will be made for car sharing club vehicles for residents within the development. This will further lessen the need for individuals to own private vehicles.

6.1 Pedestrians & Cyclists

The fully developed mobility plan will promote walking and cycling as part of a daily exercise routine and will provide information on routes, journey times and calories burned. The location of this development would prove helpful for most cyclists and pedestrians. The combination of walking with public transport/ taxi services should also be supported.

6.2 Public Transport

The proposed development is well served by regular bus routes. The availability of a public transport system allows users of the proposed development an alternative mode of travel. The mobility management plan developed for the completed scheme will include for incentives such as;

- Monthly/annual commuter ticket schemes/offers
- Timetables, routes and maps
- Journey time indicators
- Government supported programs to encourage people to use public transport (currently includes up to a 48% saving on standard pay-over-the-counter charge by means of tax saving schemes).

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary of Results

In conclusion, the site location is well situated for the implementation of a Mobility Management Plan promoting alternative modes of transport.

All sustainable modes of transport will be promoted as part of a marketing campaign for the site which will include actively encouraging public transport, walking and cycling as realistic and viable modes of transport for residents.

This can be achieved via the circulation of useful information such as routes, exercise plans etc. Cycle Planner Apps are useful in planning routes that avoid roads with heavy traffic and avoid difficult turns at busy junctions. Walking & cycling societies could be formed to create a community culture around the activity. Attention should also be drawn to the regular bus routes to/from the City Centre. A bulletin board can be placed in the lobby of apartment blocks or other such communal areas where information on all alternative transport modes could be posted.

The continued dependence on the motor car is not sustainable into the future. Planning and development of new commercial and residential schemes should go hand in hand with a transport strategy limiting the dependability on the private motor car. Current national policy supports this premise for the development of residential areas. The proposed development meets all of the criteria associated with this policy.

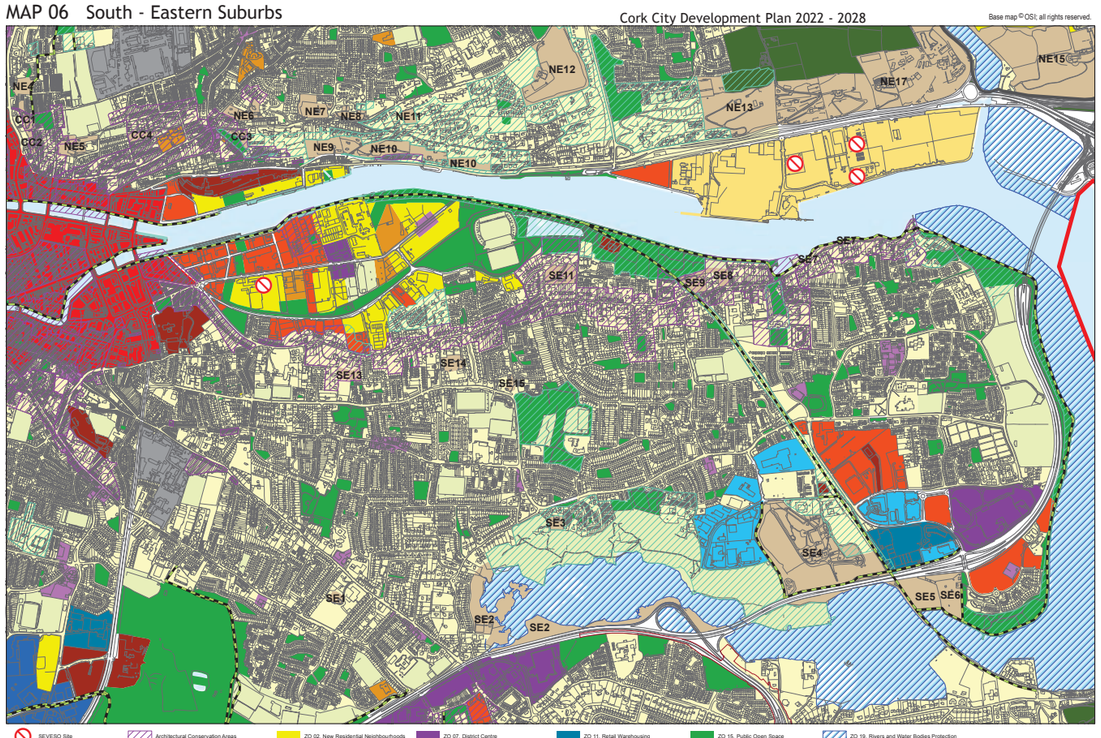
The continuation and further introduction of government supported programs, including tax policy incentives, multi-use (multi-city) bus passes, and bike-to-work schemes, will continue to incentivize people to use more sustainable transport modes in their everyday travel.

APPENDIX 1: CORK CITY DEVELOPMENT PLAN MAP

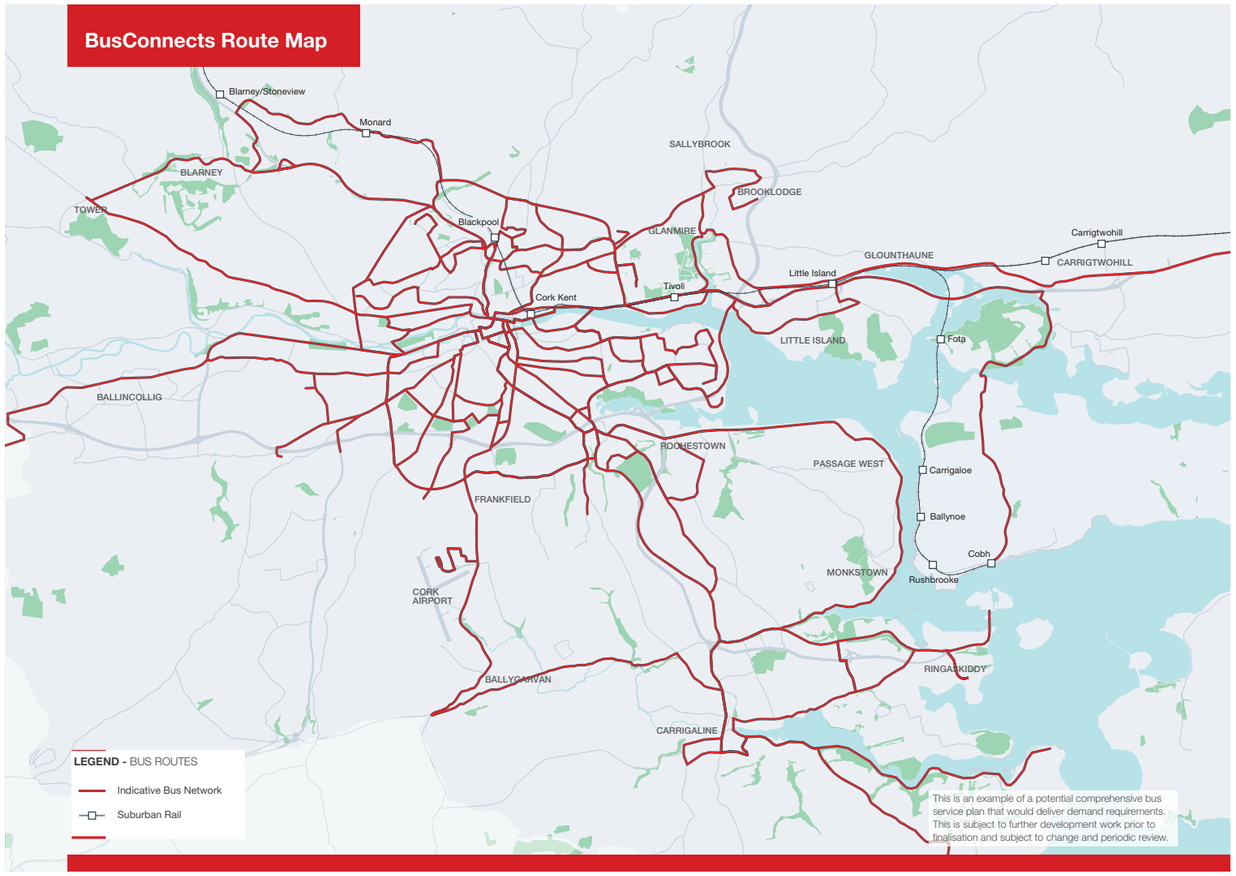
MAP 06 South - Eastern Suburbs

Cork City Development Plan 2022 - 2028

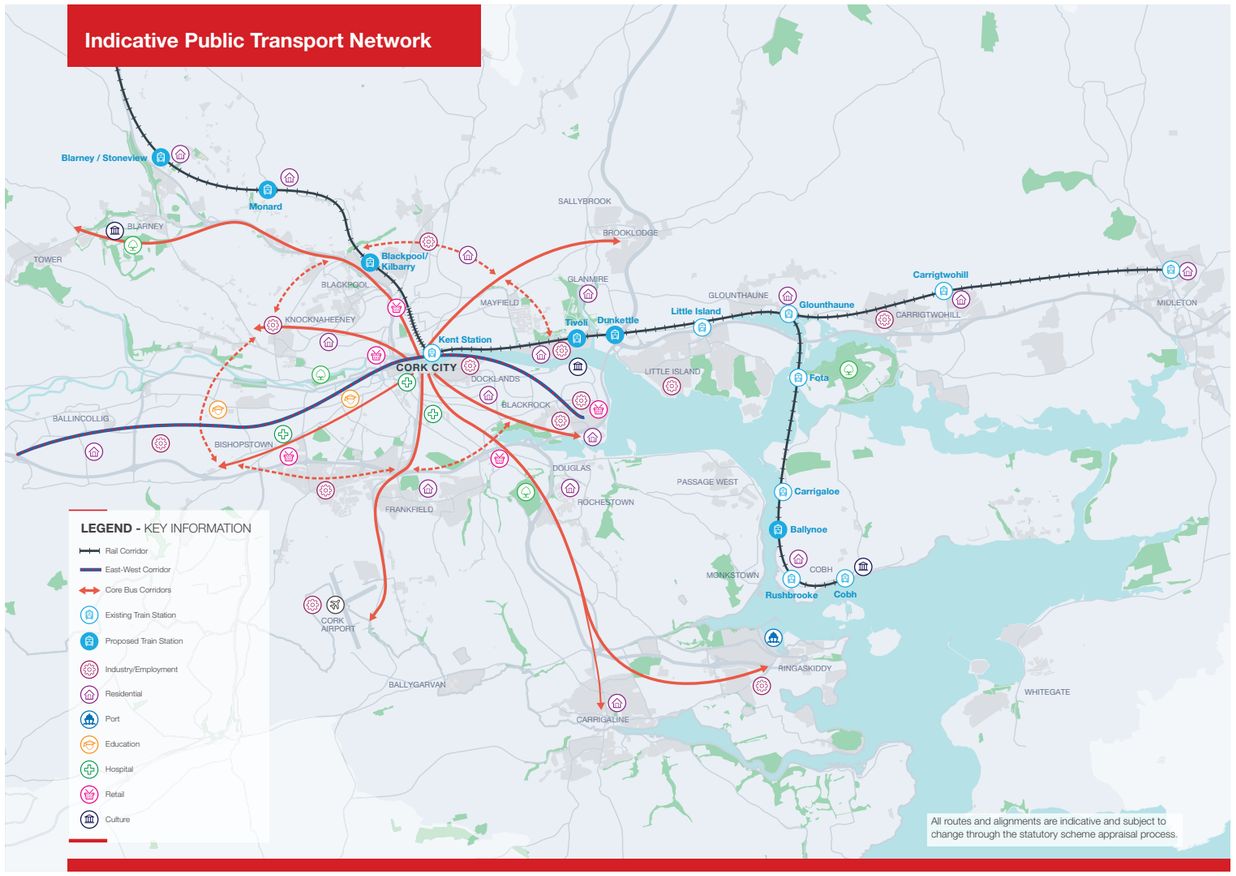
Base map © OSI; all rights reserved.



APPENDIX 2: CORK METROPOLITAN AREA TRANSPORT STRATEGY MAPPING



Indicative Public Transport Network

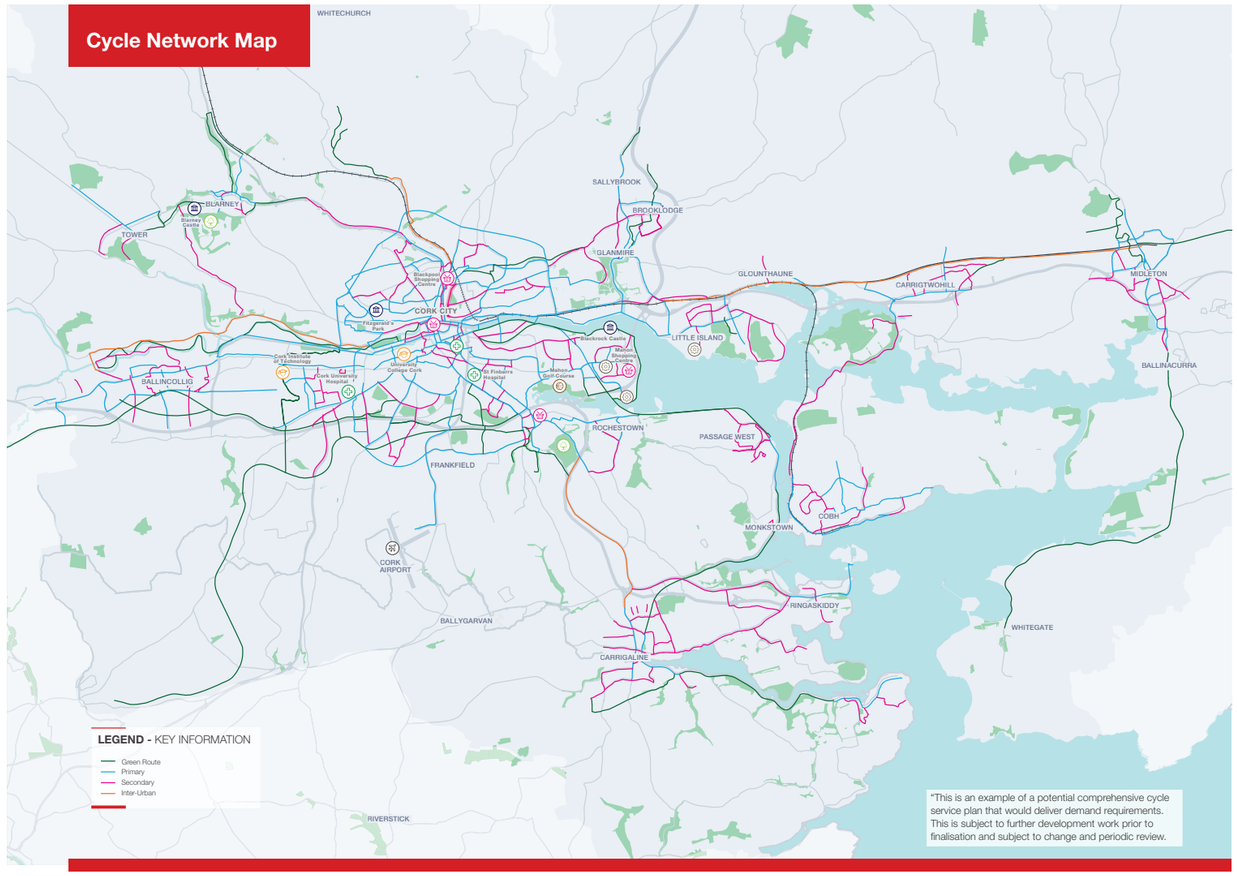


LEGEND - KEY INFORMATION

- Rail Corridor
- East-West Corridor
- Core Bus Corridors
- Existing Train Station
- Proposed Train Station
- Industry/Employment
- Residential
- Port
- Education
- Hospital
- Retail
- Culture

All routes and alignments are indicative and subject to change through the statutory scheme appraisal process.

Cycle Network Map



LEGEND - KEY INFORMATION

- Green Route
- Primary
- Secondary
- Inter-Urban

*This is an example of a potential comprehensive cycle service plan that would deliver demand requirements. This is subject to further development work prior to finalisation and subject to change and periodic review.

202A

Mahon Point to Hollyhill via Eglinton St

Operating day		Monday - Friday											
Mahon Point (Omniplex)	dep			06:40	07:00	07:20	07:40	08:00	08:20	08:40	09:00	09:20	09:40	10:00
Ringmahon Road (Riverbank)				06:41	07:01	07:21	07:41	08:01	08:21	08:41	09:01	09:21	09:41	10:01
Ringmahon Road (Opp Soccer Pitch)				06:42	07:02	07:22	07:42	08:02	08:22	08:42	09:02	09:22	09:42	10:02
Ringmahon Road (Opp GAA Pitch)				06:42	07:02	07:22	07:42	08:02	08:22	08:42	09:02	09:22	09:42	10:02
Ringmahon Road (Holy Cross School)				06:43	07:03	07:23	07:43	08:03	08:23	08:43	09:03	09:23	09:43	10:03
Ringmahon Road (Dunlocha Cottages)				06:44	07:04	07:24	07:44	08:05	08:25	08:45	09:05	09:25	09:44	10:04
Ringmahon Road (Convent Rd Jctn)				06:45	07:05	07:25	07:45	08:06	08:26	08:46	09:06	09:26	09:44	10:04
Skehard Road (Service Station)				06:46	07:07	07:27	07:47	08:08	08:28	08:48	09:08	09:28	09:47	10:07
Church Road (Northbound)				06:48	07:09	07:29	07:49	08:11	08:31	08:51	09:11	09:31	09:49	10:09
Beaumont Drive (Marian Pk Grotto)				06:48	07:10	07:30	07:50	08:12	08:32	08:52	09:12	09:32	09:50	10:10
Beaumont Drive (Upper)				06:49	07:11	07:31	07:51	08:13	08:33	08:53	09:13	09:33	09:51	10:11
Beaumont Drive (Spar Shop)				06:49	07:11	07:31	07:51	08:14	08:34	08:54	09:14	09:34	09:51	10:11
Beaumont Drive (The Crescent Jctn)				06:50	07:12	07:32	07:52	08:15	08:35	08:55	09:15	09:35	09:52	10:12
Blackrock Road (AIB)				06:50	07:12	07:32	07:52	08:15	08:35	08:55	09:15	09:35	09:52	10:12
Blackrock Road (Ashcroft)				06:51	07:13	07:33	07:53	08:16	08:36	08:56	09:16	09:36	09:53	10:13
Blackrock Road (Janeville)				06:51	07:14	07:34	07:54	08:17	08:37	08:57	09:17	09:37	09:53	10:13
Blackrock Road (Crab Lane Jctn)				06:52	07:14	07:34	07:54	08:17	08:37	08:57	09:17	09:37	09:54	10:14
Blackrock Road (Richmond Est)				06:52	07:15	07:35	07:55	08:18	08:38	08:58	09:18	09:38	09:54	10:14
Blackrock Road (Aston Estate)				06:53	07:15	07:35	07:55	08:18	08:38	08:58	09:18	09:38	09:55	10:15
Victoria Road (Opp Marina Park)				06:53	07:16	07:36	07:56	08:20	08:40	09:00	09:20	09:40	09:55	10:15
Victoria Road (Opp Kennedy Park)				06:54	07:17	07:37	07:57	08:20	08:40	09:00	09:20	09:40	09:56	10:16
Marina Terrace (Geraldine Place)				06:54	07:17	07:37	07:57	08:21	08:41	09:01	09:21	09:41	09:56	10:16
Eglinton Street (Opp Webworks)				06:56	07:20	07:40	08:00	08:24	08:44	09:03	09:23	09:43	09:59	10:19
Merchants Quay (Dunnes Stores A)		06:20	06:40	07:03	07:28	07:48	08:08	08:33	08:53	09:11	09:31	09:51	10:07	10:27
Mulgrave Rd		06:23	06:43	07:06	07:31	07:51	08:11	08:36	08:56	09:14	09:34	09:54	10:10	10:30
Upper John Street (Maldron Hotel)		06:23	06:43	07:07	07:31	07:51	08:11	08:37	08:57	09:15	09:35	09:55	10:11	10:31
Cathedral Road (Wolfe Tone St Lwr)		06:25	06:45	07:09	07:33	07:53	08:13	08:40	09:00	09:17	09:37	09:57	10:12	10:32
Cathedral Road (St Vincents St)		06:25	06:45	07:10	07:35	07:55	08:15	08:41	09:01	09:18	09:38	09:58	10:14	10:34
Cathedral Road (St Brigids Rd)		06:26	06:46	07:11	07:35	07:55	08:15	08:42	09:02	09:19	09:39	09:59	10:14	10:34
Cathedral Road (O Hanlons Pharmacy)		06:26	06:46	07:11	07:36	07:56	08:16	08:42	09:02	09:19	09:39	09:59	10:15	10:35
Cathedral Road (Mt Eden Opp Church)		06:27	06:47	07:12	07:36	07:56	08:16	08:43	09:03	09:20	09:40	10:00	10:15	10:35
Bakers Rd (Opp Garda Stn)		06:27	06:47	07:12	07:37	07:57	08:17	08:43	09:03	09:20	09:40	10:00	10:16	10:36
Bakers Rd (St Marys Hospital)		06:28	06:48	07:13	07:37	07:57	08:17	08:44	09:04	09:21	09:41	10:01	10:16	10:36
Harbour View Road (Bakers Rd Junction)		06:28	06:48	07:14	07:39	07:59	08:19	08:45	09:05	09:22	09:42	10:02	10:18	10:38
Harbour View Road (Opp Carbery Grove)		06:29	06:49	07:14	07:39	07:59	08:19	08:46	09:06	09:22	09:42	10:02	10:19	10:39
Harbour View Road (TMS Com College)		06:29	06:49	07:15	07:40	08:00	08:20	08:46	09:06	09:23	09:43	10:03	10:19	10:39
Hollyhill (Hillcrest Estate)		06:30	06:50	07:15	07:40	08:00	08:20	08:47	09:07	09:23	09:43	10:03	10:20	10:40
Hollyhill (Hollywood Estate)		06:30	06:50	07:16	07:41	08:01	08:21	08:47	09:07	09:24	09:44	10:04	10:21	10:41
Hollyhill (National Learning Net)		06:31	06:51	07:17	07:42	08:02	08:22	08:48	09:08	09:25	09:45	10:05	10:22	10:42
Hollyhill (Apple)	arr	06:32	06:52	07:18	07:43	08:03	08:23	08:50	09:10	09:26	09:46	10:06	10:23	10:43

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 02.02.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

APPENDIX 3: BUS EIREANN INFORMATION

202A Mahon Point to Hollyhill via Eglinton St

Operating day		Monday - Friday												
Mahon Point (Omniplex)	dep	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40
Ringmahon Road (Riverbank)		14:41	15:01	15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41
Ringmahon Road (Opp Soccer Pitch)		14:42	15:02	15:22	15:42	16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42
Ringmahon Road (Opp GAA Pitch)		14:42	15:02	15:22	15:42	16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42
Ringmahon Road (Holy Cross School)		14:43	15:03	15:23	15:43	16:03	16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43
Ringmahon Road (Dunlocha Cottages)		14:44	15:04	15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:43
Ringmahon Road (Convent Rd Jctn)		14:44	15:04	15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:44
Skehard Road (Service Station)		14:47	15:07	15:27	15:48	16:08	16:28	16:48	17:08	17:28	17:47	18:07	18:27	18:46
Church Road (Northbound)		14:50	15:10	15:30	15:51	16:11	16:31	16:51	17:11	17:31	17:50	18:10	18:30	18:49
Beaumont Drive (Marian Pk Grotto)		14:50	15:10	15:30	15:52	16:12	16:32	16:52	17:12	17:32	17:51	18:11	18:31	18:49
Beaumont Drive (Upper)		14:51	15:11	15:31	15:53	16:13	16:33	16:53	17:13	17:33	17:52	18:12	18:32	18:50
Beaumont Drive (Spar Shop)		14:52	15:12	15:32	15:53	16:13	16:33	16:53	17:13	17:33	17:52	18:12	18:32	18:50
Beaumont Drive (The Crescent Jctn)		14:52	15:12	15:32	15:54	16:14	16:34	16:54	17:14	17:34	17:53	18:13	18:33	18:51
Blackrock Road (AIB)		14:53	15:13	15:33	15:54	16:14	16:34	16:54	17:14	17:34	17:53	18:13	18:33	18:51
Blackrock Road (Ashcroft)		14:53	15:13	15:33	15:55	16:15	16:35	16:55	17:15	17:35	17:54	18:14	18:34	18:52
Blackrock Road (Janeville)		14:54	15:14	15:34	15:55	16:15	16:35	16:55	17:15	17:35	17:54	18:14	18:34	18:52
Blackrock Road (Crab Lane Jctn)		14:54	15:14	15:34	15:56	16:16	16:36	16:56	17:16	17:36	17:55	18:15	18:35	18:53
Blackrock Road (Richmond Est)		14:55	15:15	15:35	15:56	16:16	16:36	16:56	17:16	17:36	17:55	18:15	18:35	18:53
Blackrock Road (Aston Estate)		14:55	15:15	15:35	15:57	16:17	16:37	16:57	17:17	17:37	17:56	18:16	18:36	18:54
Victoria Road (Opp Marina Park)		14:56	15:16	15:36	15:58	16:18	16:38	16:58	17:18	17:38	17:57	18:17	18:37	18:54
Victoria Road (Opp Kennedy Park)		14:56	15:16	15:36	15:58	16:18	16:38	16:58	17:18	17:38	17:57	18:17	18:37	18:55
Marina Terrace (Geraldine Place)		14:57	15:17	15:37	15:59	16:19	16:39	16:59	17:19	17:39	17:58	18:18	18:38	18:55
Eglinton Street (Opp Webworks)		15:00	15:20	15:40	16:03	16:23	16:43	17:03	17:23	17:43	18:01	18:21	18:41	18:58
Merchants Quay (Dunnes Stores A)		15:09	15:29	15:49	16:13	16:33	16:53	17:13	17:33	17:53	18:09	18:29	18:49	19:06
Mulgrave Rd		15:12	15:32	15:52	16:16	16:36	16:56	17:16	17:36	17:56	18:12	18:32	18:52	19:09
Upper John Street (Maldron Hotel)		15:12	15:32	15:52	16:17	16:37	16:57	17:17	17:37	17:57	18:13	18:33	18:53	19:10
Cathedral Road (Wolfe Tone St Lwr)		15:14	15:34	15:54	16:20	16:40	17:00	17:20	17:40	18:00	18:16	18:36	18:56	19:11
Cathedral Road (St Vincents St)		15:16	15:36	15:56	16:21	16:41	17:01	17:21	17:41	18:01	18:17	18:37	18:57	19:13
Cathedral Road (St Brigids Rd)		15:16	15:36	15:56	16:22	16:42	17:02	17:22	17:42	18:02	18:18	18:38	18:58	19:13
Cathedral Road (O Hanlons Pharmacy)		15:17	15:37	15:57	16:22	16:42	17:02	17:22	17:42	18:02	18:18	18:38	18:58	19:14
Cathedral Road (Mt Eden Opp Church)		15:17	15:37	15:57	16:23	16:43	17:03	17:23	17:43	18:03	18:19	18:39	18:59	19:14
Bakers Rd (Opp Garda Stn)		15:18	15:38	15:58	16:23	16:43	17:03	17:23	17:43	18:03	18:19	18:39	18:59	19:15
Bakers Rd (St Marys Hospital)		15:18	15:38	15:58	16:24	16:44	17:04	17:24	17:44	18:04	18:20	18:40	19:00	19:15
Harbour View Road (Bakers Rd Junction)		15:20	15:40	16:00	16:25	16:45	17:05	17:25	17:45	18:05	18:21	18:41	19:01	19:16
Harbour View Road (Opp Carbery Grove)		15:21	15:41	16:01	16:26	16:46	17:06	17:26	17:46	18:06	18:22	18:42	19:02	19:17
Harbour View Road (TMS Com College)		15:22	15:42	16:02	16:27	16:47	17:07	17:27	17:47	18:07	18:23	18:43	19:03	19:18
Hollyhill (Hillcrest Estate)		15:22	15:42	16:02	16:28	16:48	17:08	17:28	17:48	18:08	18:23	18:43	19:03	19:18
Hollyhill (Hollywood Estate)		15:23	15:43	16:03	16:28	16:48	17:08	17:28	17:48	18:08	18:24	18:44	19:04	19:19
Hollyhill (National Learning Net)		15:24	15:44	16:04	16:30	16:50	17:10	17:30	17:50	18:10	18:25	18:45	19:05	19:20
Hollyhill (Apple)	arr	15:25	15:45	16:05	16:31	16:51	17:11	17:31	17:51	18:11	18:26	18:46	19:06	19:21

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Monday - Friday												
Mahon Point (Omniplex)	dep	10:20	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20
Ringmahon Road (Riverbank)		10:21	10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21
Ringmahon Road (Opp Soccer Pitch)		10:22	10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22
Ringmahon Road (Opp GAA Pitch)		10:22	10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22
Ringmahon Road (Holy Cross School)		10:23	10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23
Ringmahon Road (Dunlocha Cottages)		10:24	10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24
Ringmahon Road (Convent Rd Jctn)		10:24	10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24
Skehard Road (Service Station)		10:27	10:47	11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27
Church Road (Northbound)		10:29	10:49	11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:50	14:10	14:30
Beaumont Drive (Marian Pk Grotto)		10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30
Beaumont Drive (Upper)		10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31
Beaumont Drive (Spar Shop)		10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:52	14:12	14:32
Beaumont Drive (The Crescent Jctn)		10:32	10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32
Blackrock Road (AIB)		10:32	10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:53	14:13	14:33
Blackrock Road (Ashcroft)		10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33
Blackrock Road (Janeville)		10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:54	14:14	14:34
Blackrock Road (Crab Lane Jctn)		10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34
Blackrock Road (Richmond Est)		10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:55	14:15	14:35
Blackrock Road (Aston Estate)		10:35	10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35
Victoria Road (Opp Marina Park)		10:35	10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:56	14:16	14:36
Victoria Road (Opp Kennedy Park)		10:36	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16	14:36
Marina Terrace (Geraldine Place)		10:36	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:57	14:17	14:37
Eglinton Street (Opp Webworks)		10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	14:00	14:20	14:40
Merchants Quay (Dunnes Stores A)		10:47	11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:09	14:29	14:49
Mulgrave Rd		10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:12	14:32	14:52
Upper John Street (Maldron Hotel)		10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:12	14:32	14:52
Cathedral Road (Wolfe Tone St Lwr)		10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:14	14:34	14:54
Cathedral Road (St Vincents St)		10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:16	14:36	14:56
Cathedral Road (St Brigids Rd)		10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:16	14:36	14:56
Cathedral Road (O Hanlons Pharmacy)		10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:17	14:37	14:57
Cathedral Road (Mt Eden Opp Church)		10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:17	14:37	14:57
Bakers Rd (Opp Garda Stn)		10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:18	14:38	14:58
Bakers Rd (St Marys Hospital)		10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:18	14:38	14:58
Harbour View Road (Bakers Rd Junction)		10:58	11:18	11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:20	14:40	15:00
Harbour View Road (Opp Carbery Grove)		10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:21	14:41	15:01
Harbour View Road (TMS Com College)		10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:22	14:42	15:02
Hollyhill (Hillcrest Estate)		11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:22	14:42	15:02
Hollyhill (Hollywood Estate)		11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:23	14:43	15:03
Hollyhill (National Learning Net)		11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:24	14:44	15:04
Hollyhill (Apple)	arr	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:25	14:45	15:05

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Saturday											
Mahon Point (Omniplex)	dep			07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:20	10:40	11:00	11:20
Ringmahon Road (Riverbank)				07:01	07:31	08:01	08:31	09:01	09:31	10:01	10:21	10:41	11:01	11:21
Ringmahon Road (Opp Soccer Pitch)				07:02	07:32	08:02	08:32	09:02	09:32	10:02	10:22	10:42	11:02	11:22
Ringmahon Road (Opp GAA Pitch)				07:02	07:32	08:02	08:32	09:02	09:32	10:02	10:22	10:42	11:02	11:22
Ringmahon Road (Holy Cross School)				07:03	07:33	08:03	08:33	09:03	09:33	10:03	10:23	10:43	11:03	11:23
Ringmahon Road (Dunlocha Cottages)				07:03	07:33	08:03	08:33	09:03	09:33	10:03	10:23	10:43	11:03	11:23
Ringmahon Road (Convent Rd Jctn)				07:04	07:34	08:04	08:34	09:04	09:34	10:04	10:24	10:44	11:04	11:24
Skehard Road (Service Station)				07:05	07:35	08:05	08:35	09:05	09:35	10:06	10:26	10:46	11:06	11:26
Church Road (Northbound)				07:07	07:37	08:07	08:37	09:07	09:37	10:08	10:28	10:48	11:08	11:28
Beaumont Drive (Marian Pk Grotto)				07:08	07:38	08:08	08:38	09:08	09:38	10:09	10:29	10:49	11:09	11:29
Beaumont Drive (Upper)				07:08	07:38	08:08	08:38	09:08	09:38	10:09	10:29	10:49	11:09	11:29
Beaumont Drive (Spar Shop)				07:09	07:39	08:09	08:39	09:09	09:39	10:10	10:30	10:50	11:10	11:30
Beaumont Drive (The Crescent Jctn)				07:09	07:39	08:09	08:39	09:09	09:39	10:10	10:30	10:50	11:10	11:30
Blackrock Road (AIB)				07:10	07:40	08:10	08:40	09:10	09:40	10:11	10:31	10:51	11:11	11:31
Blackrock Road (Ashcroft)				07:10	07:40	08:10	08:40	09:10	09:40	10:11	10:31	10:51	11:11	11:31
Blackrock Road (Janeville)				07:11	07:41	08:11	08:41	09:11	09:41	10:12	10:32	10:52	11:12	11:32
Blackrock Road (Crab Lane Jctn)				07:11	07:41	08:11	08:41	09:11	09:41	10:12	10:32	10:52	11:12	11:32
Blackrock Road (Richmond Est)				07:12	07:42	08:12	08:42	09:12	09:42	10:13	10:33	10:53	11:13	11:33
Blackrock Road (Aston Estate)				07:12	07:42	08:12	08:42	09:12	09:42	10:13	10:33	10:53	11:13	11:33
Victoria Road (Opp Marina Park)				07:13	07:43	08:13	08:43	09:13	09:43	10:14	10:34	10:54	11:14	11:34
Victoria Road (Opp Kennedy Park)				07:13	07:43	08:13	08:43	09:13	09:43	10:14	10:34	10:54	11:14	11:34
Marina Terrace (Geraldine Place)				07:14	07:44	08:14	08:44	09:14	09:44	10:15	10:35	10:55	11:15	11:35
Eglinton Street (Opp Webworks)				07:16	07:46	08:16	08:46	09:16	09:46	10:17	10:37	10:57	11:17	11:37
Merchants Quay (Dunnes Stores A)		06:25	06:55	07:22	07:52	08:22	08:52	09:22	09:52	10:25	10:45	11:05	11:25	11:45
Mulgrave Rd		06:28	06:58	07:25	07:55	08:25	08:55	09:25	09:55	10:28	10:48	11:08	11:28	11:48
Upper John Street (Maldron Hotel)		06:28	06:58	07:26	07:56	08:26	08:56	09:26	09:56	10:28	10:48	11:08	11:28	11:48
Cathedral Road (Wolfe Tone St Lwr)		06:30	07:00	07:27	07:57	08:27	08:57	09:27	09:57	10:30	10:50	11:10	11:30	11:50
Cathedral Road (St Vincents St)		06:30	07:00	07:28	07:58	08:28	08:58	09:28	09:58	10:31	10:51	11:11	11:31	11:51
Cathedral Road (St Brigids Rd)		06:31	07:01	07:28	07:58	08:28	08:58	09:28	09:58	10:32	10:52	11:12	11:32	11:52
Cathedral Road (O Hanlons Pharmacy)		06:31	07:01	07:29	07:59	08:29	08:59	09:29	09:59	10:32	10:52	11:12	11:32	11:52
Cathedral Road (Mt Eden Opp Church)		06:32	07:02	07:29	07:59	08:29	08:59	09:29	09:59	10:33	10:53	11:13	11:33	11:53
Bakers Rd (Opp Garda Stn)		06:32	07:02	07:30	08:00	08:30	09:00	09:30	10:00	10:33	10:53	11:13	11:33	11:53
Bakers Rd (St Marys Hospital)		06:33	07:03	07:30	08:00	08:30	09:00	09:30	10:00	10:34	10:54	11:14	11:34	11:54
Harbour View Road (Bakers Rd Junction)		06:33	07:03	07:31	08:01	08:31	09:01	09:31	10:01	10:35	10:55	11:15	11:35	11:55
Harbour View Road (Opp Carbery Grove)		06:34	07:04	07:31	08:01	08:31	09:01	09:31	10:01	10:35	10:55	11:15	11:35	11:55
Harbour View Road (TMS Com College)		06:34	07:04	07:32	08:02	08:32	09:02	09:32	10:02	10:36	10:56	11:16	11:36	11:56
Hollyhill (Hillcrest Estate)		06:35	07:05	07:32	08:02	08:32	09:02	09:32	10:02	10:36	10:56	11:16	11:36	11:56
Hollyhill (Hollywood Estate)		06:35	07:05	07:33	08:03	08:33	09:03	09:33	10:03	10:37	10:57	11:17	11:37	11:57
Hollyhill (National Learning Net)		06:36	07:06	07:33	08:03	08:33	09:03	09:33	10:03	10:37	10:57	11:17	11:37	11:57
Hollyhill (Apple)	arr	06:37	07:07	07:35	08:05	08:35	09:05	09:35	10:05	10:39	10:59	11:19	11:39	11:59

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Monday - Friday								
Mahon Point (Omniplex)	dep	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00
Ringmahon Road (Riverbank)		19:01	19:31	20:01	20:31	21:01	21:31	22:01	22:31	23:01
Ringmahon Road (Opp Soccer Pitch)		19:02	19:32	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Opp GAA Pitch)		19:02	19:32	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Holy Cross School)		19:03	19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Dunlocha Cottages)		19:03	19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Convent Rd Jctn)		19:04	19:34	20:04	20:34	21:04	21:34	22:04	22:34	23:04
Skehard Road (Service Station)		19:06	19:36	20:06	20:36	21:06	21:35	22:05	22:35	23:05
Church Road (Northbound)		19:09	19:39	20:08	20:38	21:08	21:37	22:07	22:37	23:07
Beaumont Drive (Marian Pk Grotto)		19:09	19:39	20:08	20:38	21:08	21:37	22:07	22:37	23:07
Beaumont Drive (Upper)		19:10	19:40	20:09	20:39	21:09	21:38	22:08	22:38	23:08
Beaumont Drive (Spar Shop)		19:10	19:40	20:09	20:39	21:09	21:38	22:08	22:38	23:08
Beaumont Drive (The Crescent Jctn)		19:11	19:41	20:10	20:40	21:10	21:39	22:09	22:39	23:09
Blackrock Road (AIB)		19:11	19:41	20:10	20:40	21:10	21:39	22:09	22:39	23:09
Blackrock Road (Ashcroft)		19:12	19:42	20:11	20:41	21:11	21:40	22:10	22:40	23:10
Blackrock Road (Janeville)		19:12	19:42	20:11	20:41	21:11	21:40	22:10	22:40	23:10
Blackrock Road (Crab Lane Jctn)		19:13	19:43	20:12	20:42	21:12	21:41	22:11	22:41	23:11
Blackrock Road (Richmond Est)		19:13	19:43	20:12	20:42	21:12	21:41	22:11	22:41	23:11
Blackrock Road (Aston Estate)		19:14	19:44	20:13	20:43	21:13	21:42	22:12	22:42	23:12
Victoria Road (Opp Marina Park)		19:14	19:44	20:13	20:43	21:13	21:42	22:12	22:42	23:12
Victoria Road (Opp Kennedy Park)		19:15	19:45	20:14	20:44	21:14	21:43	22:13	22:43	23:13
Marina Terrace (Geraldine Place)		19:15	19:45	20:14	20:44	21:14	21:43	22:13	22:43	23:13
Eglinton Street (Opp Webworks)		19:18	19:48	20:16	20:46	21:16	21:45	22:15	22:45	23:15
Merchants Quay (Dunnes Stores A)		19:26	19:56	20:24	20:54	21:24	21:52	22:22	22:52	23:22
Mulgrave Rd		19:29	19:59	20:27	20:57	21:27	21:55	22:25	22:55	23:25
Upper John Street (Maldron Hotel)		19:30	20:00	20:28	20:58	21:28	21:56	22:26	22:56	23:26
Cathedral Road (Wolfe Tone St Lwr)		19:31	20:01	20:29	20:59	21:29	21:57	22:27	22:57	23:27
Cathedral Road (St Vincents St)		19:33	20:03	20:31	21:01	21:31	21:58	22:28	22:58	23:28
Cathedral Road (St Brigids Rd)		19:33	20:03	20:31	21:01	21:31	21:59	22:29	22:59	23:29
Cathedral Road (O Hanlons Pharmacy)		19:34	20:04	20:32	21:02	21:32	21:59	22:29	22:59	23:29
Cathedral Road (Mt Eden Opp Church)		19:34	20:04	20:32	21:02	21:32	22:00	22:30	23:00	23:30
Bakers Rd (Opp Garda Stn)		19:35	20:05	20:33	21:03	21:33	22:00	22:30	23:00	23:30
Bakers Rd (St Marys Hospital)		19:35	20:05	20:33	21:03	21:33	22:01	22:31	23:01	23:31
Harbour View Road (Bakers Rd Junction)		19:36	20:06	20:34	21:04	21:34	22:01	22:31	23:01	23:31
Harbour View Road (Opp Carbery Grove)		19:37	20:07	20:34	21:04	21:34	22:02	22:32	23:02	23:32
Harbour View Road (TMS Com College)		19:38	20:08	20:35	21:05	21:35	22:02	22:32	23:02	23:32
Hollyhill (Hillcrest Estate)		19:38	20:08	20:35	21:05	21:35	22:03	22:33	23:03	23:33
Hollyhill (Hollywood Estate)		19:39	20:09	20:36	21:06	21:36	22:03	22:33	23:03	23:33
Hollyhill (National Learning Net)		19:40	20:10	20:37	21:07	21:37	22:04	22:34	23:04	23:34
Hollyhill (Apple)	arr	19:41	20:11	20:38	21:08	21:38	22:05	22:35	23:05	23:35

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Saturday												
Mahon Point (Omniplex)	dep	16:00	16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:30	20:00	20:30
Ringmahon Road (Riverbank)		16:01	16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:31	20:01	20:31
Ringmahon Road (Opp Soccer Pitch)		16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:32	20:02	20:32
Ringmahon Road (Opp GAA Pitch)		16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:32	20:02	20:32
Ringmahon Road (Holy Cross School)		16:03	16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:33	20:03	20:33
Ringmahon Road (Dunlocha Cottages)		16:03	16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:33	20:03	20:33
Ringmahon Road (Convent Rd Jctn)		16:04	16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:34	20:04	20:34
Skehard Road (Service Station)		16:06	16:26	16:46	17:06	17:26	17:46	18:06	18:26	18:46	19:06	19:36	20:05	20:35
Church Road (Northbound)		16:09	16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:48	19:08	19:38	20:07	20:37
Beaumont Drive (Marian Pk Grotto)		16:09	16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:49	19:09	19:39	20:07	20:37
Beaumont Drive (Upper)		16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:49	19:09	19:39	20:08	20:38
Beaumont Drive (Spar Shop)		16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:10	19:40	20:08	20:38
Beaumont Drive (The Crescent Jctn)		16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:50	19:10	19:40	20:09	20:39
Blackrock Road (AIB)		16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:11	19:41	20:09	20:39
Blackrock Road (Ashcroft)		16:12	16:32	16:52	17:12	17:32	17:52	18:12	18:32	18:51	19:11	19:41	20:10	20:40
Blackrock Road (Janeville)		16:12	16:32	16:52	17:12	17:32	17:52	18:12	18:32	18:52	19:12	19:42	20:10	20:40
Blackrock Road (Crab Lane Jctn)		16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:52	19:12	19:42	20:11	20:41
Blackrock Road (Richmond Est)		16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:13	19:43	20:11	20:41
Blackrock Road (Aston Estate)		16:14	16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:53	19:13	19:43	20:12	20:42
Victoria Road (Opp Marina Park)		16:14	16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:14	19:44	20:12	20:42
Victoria Road (Opp Kennedy Park)		16:15	16:35	16:55	17:15	17:35	17:55	18:15	18:35	18:54	19:14	19:44	20:13	20:43
Marina Terrace (Geraldine Place)		16:15	16:35	16:55	17:15	17:35	17:55	18:15	18:35	18:55	19:15	19:45	20:13	20:43
Eglinton Street (Opp Webworks)		16:18	16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:57	19:17	19:47	20:15	20:45
Merchants Quay (Dunnes Stores A)		16:25	16:45	17:05	17:25	17:45	18:05	18:25	18:45	19:04	19:24	19:54	20:21	20:51
Mulgrave Rd		16:28	16:48	17:08	17:28	17:48	18:08	18:28	18:48	19:07	19:27	19:57	20:24	20:54
Upper John Street (Maldron Hotel)		16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:49	19:07	19:27	19:57	20:24	20:54
Cathedral Road (Wolfe Tone St Lwr)		16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:09	19:29	19:59	20:26	20:56
Cathedral Road (St Vincents St)		16:32	16:52	17:12	17:32	17:52	18:12	18:32	18:52	19:10	19:30	20:00	20:27	20:57
Cathedral Road (St Brigids Rd)		16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:11	19:31	20:01	20:27	20:57
Cathedral Road (O Hanlons Pharmacy)		16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:11	19:31	20:01	20:28	20:58
Cathedral Road (Mt Eden Opp Church)		16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:12	19:32	20:02	20:28	20:58
Bakers Rd (Opp Garda Stn)		16:35	16:55	17:15	17:35	17:55	18:15	18:35	18:55	19:12	19:32	20:02	20:29	20:59
Bakers Rd (St Marys Hospital)		16:35	16:55	17:15	17:35	17:55	18:15	18:35	18:55	19:13	19:33	20:03	20:29	20:59
Harbour View Road (Bakers Rd Junction)		16:36	16:56	17:16	17:36	17:56	18:16	18:36	18:56	19:14	19:34	20:04	20:30	21:00
Harbour View Road (Opp Carbery Grove)		16:37	16:57	17:17	17:37	17:57	18:17	18:37	18:57	19:14	19:34	20:04	20:30	21:00
Harbour View Road (TMS Com College)		16:37	16:57	17:17	17:37	17:57	18:17	18:37	18:57	19:15	19:35	20:05	20:31	21:01
Hollyhill (Hillcrest Estate)		16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:15	19:35	20:05	20:31	21:01
Hollyhill (Hollywood Estate)		16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:16	19:36	20:06	20:32	21:02
Hollyhill (National Learning Net)		16:39	16:59	17:19	17:39	17:59	18:19	18:39	18:59	19:16	19:36	20:06	20:32	21:02
Hollyhill (Apple)	arr	16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:18	19:38	20:08	20:34	21:04

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Saturday												
Mahon Point (Omniplex)	dep	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40
Ringmahon Road (Riverbank)		11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41
Ringmahon Road (Opp Soccer Pitch)		11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42
Ringmahon Road (Opp GAA Pitch)		11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42
Ringmahon Road (Holy Cross School)		11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43
Ringmahon Road (Dunlocha Cottages)		11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43
Ringmahon Road (Convent Rd Jctn)		11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44
Skehard Road (Service Station)		11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46
Church Road (Northbound)		11:48	12:08	12:28	12:48	13:08	13:28	13:49	14:09	14:29	14:49	15:09	15:29	15:49
Beaumont Drive (Marian Pk Grotto)		11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49
Beaumont Drive (Upper)		11:49	12:09	12:29	12:49	13:09	13:29	13:50	14:10	14:30	14:50	15:10	15:30	15:50
Beaumont Drive (Spar Shop)		11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50
Beaumont Drive (The Crescent Jctn)		11:50	12:10	12:30	12:50	13:10	13:30	13:51	14:11	14:31	14:51	15:11	15:31	15:51
Blackrock Road (AIB)		11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51
Blackrock Road (Ashcroft)		11:51	12:11	12:31	12:51	13:11	13:31	13:52	14:12	14:32	14:52	15:12	15:32	15:52
Blackrock Road (Janeville)		11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52
Blackrock Road (Crab Lane Jctn)		11:52	12:12	12:32	12:52	13:12	13:32	13:53	14:13	14:33	14:53	15:13	15:33	15:53
Blackrock Road (Richmond Est)		11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53
Blackrock Road (Aston Estate)		11:53	12:13	12:33	12:53	13:13	13:33	13:54	14:14	14:34	14:54	15:14	15:34	15:54
Victoria Road (Opp Marina Park)		11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54
Victoria Road (Opp Kennedy Park)		11:54	12:14	12:34	12:54	13:14	13:34	13:55	14:15	14:35	14:55	15:15	15:35	15:55
Marina Terrace (Geraldine Place)		11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35	14:55	15:15	15:35	15:55
Eglinton Street (Opp Webworks)		11:57	12:17	12:37	12:57	13:17	13:37	13:58	14:18	14:38	14:58	15:18	15:38	15:58
Merchants Quay (Dunnes Stores A)		12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05
Mulgrave Rd		12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08
Upper John Street (Maldron Hotel)		12:08	12:28	12:48	13:08	13:28	13:48	14:09	14:29	14:49	15:09	15:29	15:49	16:09
Cathedral Road (Wolfe Tone St Lwr)		12:10	12:30	12:50	13:10	13:30	13:50	14:11	14:31	14:51	15:11	15:31	15:51	16:11
Cathedral Road (St Vincents St)		12:11	12:31	12:51	13:11	13:31	13:51	14:12	14:32	14:52	15:12	15:32	15:52	16:12
Cathedral Road (St Brigids Rd)		12:12	12:32	12:52	13:12	13:32	13:52	14:13	14:33	14:53	15:13	15:33	15:53	16:13
Cathedral Road (O Hanlons Pharmacy)		12:12	12:32	12:52	13:12	13:32	13:52	14:14	14:34	14:54	15:14	15:34	15:54	16:14
Cathedral Road (Mt Eden Opp Church)		12:13	12:33	12:53	13:13	13:33	13:53	14:14	14:34	14:54	15:14	15:34	15:54	16:14
Bakers Rd (Opp Garda Stn)		12:13	12:33	12:53	13:13	13:33	13:53	14:15	14:35	14:55	15:15	15:35	15:55	16:15
Bakers Rd (St Marys Hospital)		12:14	12:34	12:54	13:14	13:34	13:54	14:15	14:35	14:55	15:15	15:35	15:55	16:15
Harbour View Road (Bakers Rd Junction)		12:15	12:35	12:55	13:15	13:35	13:55	14:16	14:36	14:56	15:16	15:36	15:56	16:16
Harbour View Road (Opp Carbery Grove)		12:15	12:35	12:55	13:15	13:35	13:55	14:17	14:37	14:57	15:17	15:37	15:57	16:17
Harbour View Road (TMS Com College)		12:16	12:36	12:56	13:16	13:36	13:56	14:17	14:37	14:57	15:17	15:37	15:57	16:17
Hollyhill (Hillcrest Estate)		12:16	12:36	12:56	13:16	13:36	13:56	14:18	14:38	14:58	15:18	15:38	15:58	16:18
Hollyhill (Hollywood Estate)		12:17	12:37	12:57	13:17	13:37	13:57	14:18	14:38	14:58	15:18	15:38	15:58	16:18
Hollyhill (National Learning Net)		12:17	12:37	12:57	13:17	13:37	13:57	14:19	14:39	14:59	15:19	15:39	15:59	16:19
Hollyhill (Apple)	arr	12:19	12:39	12:59	13:19	13:39	13:59	14:21	14:41	15:01	15:21	15:41	16:01	16:21

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TFI Leap

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Sunday												
Mahon Point (Omniplex)	dep	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30
Ringmahon Road (Riverbank)		06:31	07:01	07:31	08:01	08:31	09:01	09:31	10:01	10:31	11:01	11:31	12:01	12:31
Ringmahon Road (Opp Soccer Pitch)		06:32	07:02	07:32	08:02	08:32	09:02	09:32	10:02	10:32	11:02	11:32	12:02	12:32
Ringmahon Road (Opp GAA Pitch)		06:32	07:02	07:32	08:02	08:32	09:02	09:32	10:02	10:32	11:02	11:32	12:02	12:32
Ringmahon Road (Holy Cross School)		06:33	07:03	07:33	08:03	08:33	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33
Ringmahon Road (Dunlocha Cottages)		06:33	07:03	07:33	08:03	08:33	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33
Ringmahon Road (Convent Rd Jctn)		06:34	07:04	07:34	08:04	08:34	09:04	09:34	10:04	10:34	11:04	11:34	12:04	12:34
Skehard Road (Service Station)		06:35	07:05	07:35	08:05	08:35	09:05	09:35	10:06	10:36	11:06	11:36	12:06	12:36
Church Road (Northbound)		06:37	07:07	07:37	08:07	08:37	09:07	09:37	10:08	10:38	11:08	11:38	12:09	12:39
Beaumont Drive (Marian Pk Grotto)		06:37	07:07	07:37	08:07	08:37	09:07	09:37	10:08	10:38	11:08	11:38	12:09	12:39
Beaumont Drive (Upper)		06:38	07:08	07:38	08:08	08:38	09:08	09:38	10:09	10:39	11:09	11:39	12:10	12:40
Beaumont Drive (Spar Shop)		06:38	07:08	07:38	08:08	08:38	09:08	09:38	10:09	10:39	11:09	11:39	12:10	12:40
Beaumont Drive (The Crescent Jctn)		06:39	07:09	07:39	08:09	08:39	09:09	09:39	10:10	10:40	11:10	11:40	12:11	12:41
Blackrock Road (AIB)		06:39	07:09	07:39	08:09	08:39	09:09	09:39	10:10	10:40	11:10	11:40	12:11	12:41
Blackrock Road (Ashcroft)		06:40	07:10	07:40	08:10	08:40	09:10	09:40	10:11	10:41	11:11	11:41	12:12	12:42
Blackrock Road (Janeville)		06:40	07:10	07:40	08:10	08:40	09:10	09:40	10:11	10:41	11:11	11:41	12:12	12:42
Blackrock Road (Crab Lane Jctn)		06:41	07:11	07:41	08:11	08:41	09:11	09:41	10:12	10:42	11:12	11:42	12:13	12:43
Blackrock Road (Richmond Est)		06:41	07:11	07:41	08:11	08:41	09:11	09:41	10:12	10:42	11:12	11:42	12:13	12:43
Blackrock Road (Aston Estate)		06:42	07:12	07:42	08:12	08:42	09:12	09:42	10:13	10:43	11:13	11:43	12:14	12:44
Victoria Road (Opp Marina Park)		06:42	07:12	07:42	08:12	08:42	09:12	09:42	10:13	10:43	11:13	11:43	12:14	12:44
Victoria Road (Opp Kennedy Park)		06:43	07:13	07:43	08:13	08:43	09:13	09:43	10:14	10:44	11:14	11:44	12:15	12:45
Marina Terrace (Geraldine Place)		06:43	07:13	07:43	08:13	08:43	09:13	09:43	10:14	10:44	11:14	11:44	12:15	12:45
Eglinton Street (Opp Webworks)		06:45	07:15	07:45	08:15	08:45	09:15	09:45	10:16	10:46	11:16	11:46	12:17	12:47
Merchants Quay (Dunnes Stores A)		06:51	07:21	07:51	08:21	08:51	09:21	09:51	10:23	10:53	11:23	11:53	12:24	12:54
Mulgrave Rd		06:54	07:24	07:54	08:24	08:54	09:24	09:54	10:26	10:56	11:26	11:56	12:27	12:57
Upper John Street (Maldron Hotel)		06:55	07:25	07:55	08:25	08:55	09:25	09:55	10:26	10:56	11:26	11:56	12:28	12:58
Cathedral Road (Wolfe Tone St Lwr)		06:56	07:26	07:56	08:26	08:56	09:26	09:56	10:28	10:58	11:28	11:58	12:29	12:59
Cathedral Road (St Vincents St)		06:57	07:27	07:57	08:27	08:57	09:27	09:57	10:28	10:58	11:28	11:58	12:30	13:00
Cathedral Road (St Brigids Rd)		06:57	07:27	07:57	08:27	08:57	09:27	09:57	10:29	10:59	11:29	11:59	12:31	13:01
Cathedral Road (O Hanlons Pharmacy)		06:58	07:28	07:58	08:28	08:58	09:28	09:58	10:29	10:59	11:29	11:59	12:31	13:01
Cathedral Road (Mt Eden Opp Church)		06:58	07:28	07:58	08:28	08:58	09:28	09:58	10:30	11:00	11:30	12:00	12:32	13:02
Bakers Rd (Opp Garda Stn)		06:59	07:29	07:59	08:29	08:59	09:29	09:59	10:30	11:00	11:30	12:00	12:32	13:02
Bakers Rd (St Marys Hospital)		06:59	07:29	07:59	08:29	08:59	09:29	09:59	10:31	11:01	11:31	12:01	12:33	13:03
Harbour View Road (Bakers Rd Junction)		07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:32	11:02	11:32	12:02	12:34	13:04
Harbour View Road (Opp Carbery Grove)		07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:32	11:02	11:32	12:02	12:34	13:04
Harbour View Road (TMS Com College)		07:01	07:31	08:01	08:31	09:01	09:31	10:01	10:33	11:03	11:33	12:03	12:35	13:05
Hollyhill (Hillcrest Estate)		07:01	07:31	08:01	08:31	09:01	09:31	10:01	10:33	11:03	11:33	12:03	12:35	13:05
Hollyhill (Hollywood Estate)		07:02	07:32	08:02	08:32	09:02	09:32	10:02	10:34	11:04	11:34	12:04	12:36	13:06
Hollyhill (National Learning Net)		07:02	07:32	08:02	08:32	09:02	09:32	10:02	10:34	11:04	11:34	12:04	12:36	13:06
Hollyhill (Apple)	arr	07:04	07:34	08:04	08:34	09:04	09:34	10:04	10:36	11:06	11:36	12:06	12:38	13:08

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Valid from 02.02.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

202A Mahon Point to Hollyhill via Eglinton St

Operating day		Saturday				
Mahon Point (Omniplex)	dep	21:00	21:30	22:00	22:30	23:00
Ringmahon Road (Riverbank)		21:01	21:31	22:01	22:31	23:01
Ringmahon Road (Opp Soccer Pitch)		21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Opp GAA Pitch)		21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Holy Cross School)		21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Dunlocha Cottages)		21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Convent Rd Jctn)		21:04	21:34	22:04	22:34	23:04
Skehard Road (Service Station)		21:05	21:35	22:05	22:35	23:05
Church Road (Northbound)		21:07	21:37	22:07	22:37	23:07
Beaumont Drive (Marian Pk Grotto)		21:07	21:37	22:07	22:37	23:07
Beaumont Drive (Upper)		21:08	21:38	22:08	22:38	23:08
Beaumont Drive (Spar Shop)		21:08	21:38	22:08	22:38	23:08
Beaumont Drive (The Crescent Jctn)		21:09	21:39	22:09	22:39	23:09
Blackrock Road (AIB)		21:09	21:39	22:09	22:39	23:09
Blackrock Road (Ashcroft)		21:10	21:40	22:10	22:40	23:10
Blackrock Road (Janeville)		21:10	21:40	22:10	22:40	23:10
Blackrock Road (Crab Lane Jctn)		21:11	21:41	22:11	22:41	23:11
Blackrock Road (Richmond Est)		21:11	21:41	22:11	22:41	23:11
Blackrock Road (Aston Estate)		21:12	21:42	22:12	22:42	23:12
Victoria Road (Opp Marina Park)		21:12	21:42	22:12	22:42	23:12
Victoria Road (Opp Kennedy Park)		21:13	21:43	22:13	22:43	23:13
Marina Terrace (Geraldine Place)		21:13	21:43	22:13	22:43	23:13
Eglinton Street (Opp Webworks)		21:15	21:45	22:15	22:45	23:15
Merchants Quay (Dunnes Stores A)		21:21	21:51	22:21	22:51	23:21
Mulgrave Rd		21:24	21:54	22:24	22:54	23:24
Upper John Street (Maldron Hotel)		21:24	21:54	22:24	22:54	23:24
Cathedral Road (Wolfe Tone St Lwr)		21:26	21:56	22:26	22:56	23:26
Cathedral Road (St Vincents St)		21:27	21:57	22:27	22:57	23:27
Cathedral Road (St Brigids Rd)		21:27	21:57	22:27	22:57	23:27
Cathedral Road (O Hanlons Pharmacy)		21:28	21:58	22:28	22:58	23:28
Cathedral Road (Mt Eden Opp Church)		21:28	21:58	22:28	22:58	23:28
Bakers Rd (Opp Garda Stn)		21:29	21:59	22:29	22:59	23:29
Bakers Rd (St Marys Hospital)		21:29	21:59	22:29	22:59	23:29
Harbour View Road (Bakers Rd Junction)		21:30	22:00	22:30	23:00	23:30
Harbour View Road (Opp Carbery Grove)		21:30	22:00	22:30	23:00	23:30
Harbour View Road (TMS Com College)		21:31	22:01	22:31	23:01	23:31
Hollyhill (Hillcrest Estate)		21:31	22:01	22:31	23:01	23:31
Hollyhill (Hollywood Estate)		21:32	22:02	22:32	23:02	23:32
Hollyhill (National Learning Net)		21:32	22:02	22:32	23:02	23:32
Hollyhill (Apple)	arr	21:34	22:04	22:34	23:04	23:34

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Valid from 02.02.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

202A Mahon Point to Hollyhill via Eglinton St

Operating day		Sunday							
Mahon Point (Omniplex)	dep	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00
Ringmahon Road (Riverbank)		19:31	20:01	20:31	21:01	21:31	22:01	22:31	23:01
Ringmahon Road (Opp Soccer Pitch)		19:32	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Opp GAA Pitch)		19:32	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Holy Cross School)		19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Dunlocha Cottages)		19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Convent Rd Jctn)		19:34	20:04	20:34	21:04	21:34	22:04	22:34	23:04
Skehard Road (Service Station)		19:36	20:05	20:35	21:05	21:35	22:05	22:35	23:05
Church Road (Northbound)		19:38	20:07	20:37	21:07	21:37	22:07	22:37	23:07
Beaumont Drive (Marian Pk Grotto)		19:38	20:07	20:37	21:07	21:37	22:07	22:37	23:07
Beaumont Drive (Upper)		19:39	20:08	20:38	21:08	21:38	22:08	22:38	23:08
Beaumont Drive (Spar Shop)		19:39	20:08	20:38	21:08	21:38	22:08	22:38	23:08
Beaumont Drive (The Crescent Jctn)		19:40	20:09	20:39	21:09	21:39	22:09	22:39	23:09
Blackrock Road (AIB)		19:40	20:09	20:39	21:09	21:39	22:09	22:39	23:09
Blackrock Road (Ashcroft)		19:41	20:10	20:40	21:10	21:40	22:10	22:40	23:10
Blackrock Road (Janeville)		19:41	20:10	20:40	21:10	21:40	22:10	22:40	23:10
Blackrock Road (Crab Lane Jctn)		19:42	20:11	20:41	21:11	21:41	22:11	22:41	23:11
Blackrock Road (Richmond Est)		19:42	20:11	20:41	21:11	21:41	22:11	22:41	23:11
Blackrock Road (Aston Estate)		19:43	20:12	20:42	21:12	21:42	22:12	22:42	23:12
Victoria Road (Opp Marina Park)		19:43	20:12	20:42	21:12	21:42	22:12	22:42	23:12
Victoria Road (Opp Kennedy Park)		19:44	20:13	20:43	21:13	21:43	22:13	22:43	23:13
Marina Terrace (Geraldine Place)		19:44	20:13	20:43	21:13	21:43	22:13	22:43	23:13
Eglinton Street (Opp Webworks)		19:46	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Merchants Quay (Dunnes Stores A)		19:52	20:21	20:51	21:21	21:51	22:21	22:51	23:21
Mulgrave Rd		19:55	20:24	20:54	21:24	21:54	22:24	22:54	23:24
Upper John Street (Maldron Hotel)		19:56	20:24	20:54	21:24	21:54	22:24	22:54	23:24
Cathedral Road (Wolfe Tone St Lwr)		19:57	20:26	20:56	21:26	21:56	22:26	22:56	23:26
Cathedral Road (St Vincents St)		19:58	20:26	20:56	21:26	21:56	22:26	22:56	23:26
Cathedral Road (St Brigids Rd)		19:58	20:27	20:57	21:27	21:57	22:27	22:57	23:27
Cathedral Road (O Hanlons Pharmacy)		19:59	20:27	20:57	21:27	21:57	22:27	22:57	23:27
Cathedral Road (Mt Eden Opp Church)		19:59	20:28	20:58	21:28	21:58	22:28	22:58	23:28
Bakers Rd (Opp Garda Stn)		20:00	20:28	20:58	21:28	21:58	22:28	22:58	23:28
Bakers Rd (St Marys Hospital)		20:00	20:29	20:59	21:29	21:59	22:29	22:59	23:29
Harbour View Road (Bakers Rd Junction)		20:01	20:29	20:59	21:29	21:59	22:29	22:59	23:29
Harbour View Road (Opp Carbery Grove)		20:01	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Harbour View Road (TMS Com College)		20:02	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Hollyhill (Hillcrest Estate)		20:02	20:31	21:01	21:31	22:01	22:31	23:01	23:31
Hollyhill (Hollywood Estate)		20:03	20:31	21:01	21:31	22:01	22:31	23:01	23:31
Hollyhill (National Learning Net)		20:03	20:32	21:02	21:32	22:02	22:32	23:02	23:32
Hollyhill (Apple)	arr	20:05	20:33	21:03	21:33	22:03	22:33	23:03	23:33

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202A Mahon Point to Hollyhill via Eglinton St

Operating day		Sunday												
Mahon Point (Omniplex)	dep	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Ringmahon Road (Riverbank)		13:01	13:31	14:01	14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:01	18:31	19:01
Ringmahon Road (Opp Soccer Pitch)		13:02	13:32	14:02	14:32	15:02	15:32	16:02	16:32	17:02	17:32	18:02	18:32	19:02
Ringmahon Road (Opp GAA Pitch)		13:02	13:32	14:02	14:32	15:02	15:32	16:02	16:32	17:02	17:32	18:02	18:32	19:02
Ringmahon Road (Holy Cross School)		13:03	13:33	14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	18:03	18:33	19:03
Ringmahon Road (Dunlocha Cottages)		13:03	13:33	14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	18:03	18:33	19:03
Ringmahon Road (Convent Rd Jctn)		13:04	13:34	14:04	14:34	15:04	15:34	16:04	16:34	17:04	17:34	18:04	18:34	19:04
Skehard Road (Service Station)		13:06	13:36	14:06	14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:06	18:36	19:06
Church Road (Northbound)		13:09	13:39	14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:38	19:08
Beaumont Drive (Marian Pk Grotto)		13:09	13:39	14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:38	19:08
Beaumont Drive (Upper)		13:10	13:40	14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:10	18:39	19:09
Beaumont Drive (Spar Shop)		13:10	13:40	14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:10	18:39	19:09
Beaumont Drive (The Crescent Jctn)		13:11	13:41	14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:40	19:10
Blackrock Road (AIB)		13:11	13:41	14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:40	19:10
Blackrock Road (Ashcroft)		13:12	13:42	14:12	14:42	15:12	15:42	16:12	16:42	17:12	17:42	18:12	18:41	19:11
Blackrock Road (Janeville)		13:12	13:42	14:12	14:42	15:12	15:42	16:12	16:42	17:12	17:42	18:12	18:41	19:11
Blackrock Road (Crab Lane Jctn)		13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:13	18:42	19:12
Blackrock Road (Richmond Est)		13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:13	18:42	19:12
Blackrock Road (Aston Estate)		13:14	13:44	14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:14	18:43	19:13
Victoria Road (Opp Marina Park)		13:14	13:44	14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:14	18:43	19:13
Victoria Road (Opp Kennedy Park)		13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:44	19:14
Marina Terrace (Geraldine Place)		13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:44	19:14
Eglinton Street (Opp Webworks)		13:17	13:47	14:17	14:47	15:18	15:48	16:18	16:48	17:17	17:47	18:17	18:46	19:16
Merchants Quay (Dunnes Stores A)		13:24	13:54	14:24	14:54	15:25	15:55	16:25	16:55	17:24	17:54	18:24	18:53	19:22
Mulgrave Rd		13:27	13:57	14:27	14:57	15:28	15:58	16:28	16:58	17:27	17:57	18:27	18:56	19:25
Upper John Street (Maldron Hotel)		13:28	13:58	14:28	14:58	15:29	15:59	16:29	16:59	17:28	17:58	18:28	18:56	19:26
Cathedral Road (Wolfe Tone St Lwr)		13:29	13:59	14:29	14:59	15:31	16:01	16:31	17:01	17:29	17:59	18:29	18:58	19:27
Cathedral Road (St Vincents St)		13:30	14:00	14:30	15:00	15:32	16:02	16:32	17:02	17:30	18:00	18:30	18:58	19:28
Cathedral Road (St Brigids Rd)		13:31	14:01	14:31	15:01	15:33	16:03	16:33	17:03	17:31	18:01	18:31	18:59	19:28
Cathedral Road (O Hanlons Pharmacy)		13:31	14:01	14:31	15:01	15:34	16:04	16:34	17:04	17:31	18:01	18:31	18:59	19:29
Cathedral Road (Mt Eden Opp Church)		13:32	14:02	14:32	15:02	15:34	16:04	16:34	17:04	17:32	18:02	18:32	19:00	19:29
Bakers Rd (Opp Garda Stn)		13:32	14:02	14:32	15:02	15:35	16:05	16:35	17:05	17:32	18:02	18:32	19:00	19:30
Bakers Rd (St Marys Hospital)		13:33	14:03	14:33	15:03	15:35	16:05	16:35	17:05	17:33	18:03	18:33	19:01	19:30
Harbour View Road (Bakers Rd Junction)		13:34	14:04	14:34	15:04	15:36	16:06	16:36	17:06	17:34	18:04	18:34	19:01	19:31
Harbour View Road (Opp Carbery Grove)		13:34	14:04	14:34	15:04	15:37	16:07	16:37	17:07	17:34	18:04	18:34	19:02	19:31
Harbour View Road (TMS Com College)		13:35	14:05	14:35	15:05	15:37	16:07	16:37	17:07	17:35	18:05	18:35	19:02	19:32
Hollyhill (Hillcrest Estate)		13:35	14:05	14:35	15:05	15:38	16:08	16:38	17:08	17:35	18:05	18:35	19:03	19:32
Hollyhill (Hollywood Estate)		13:36	14:06	14:36	15:06	15:38	16:08	16:38	17:08	17:36	18:06	18:36	19:03	19:33
Hollyhill (National Learning Net)		13:36	14:06	14:36	15:06	15:39	16:09	16:39	17:09	17:36	18:06	18:36	19:04	19:33
Hollyhill (Apple)	arr	13:38	14:08	14:38	15:08	15:41	16:11	16:41	17:11	17:38	18:08	18:38	19:05	19:35

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday												
Hollyhill (Apple)	dep	10:10	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10
Harbour View Road (Hollyhill Ind Estate)		10:10	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10
Hollyhill (Opp Hollywood Estate)		10:11	10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11
Hollyhill (Opp Hillcrest Estate)		10:11	10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11
Harbour View Road (Medical Centre)		10:13	10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13
Harbour View Road (Carbery Grove)		10:13	10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13
Harbour View Road (Knock Ave Jctn)		10:14	10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14
Cronins Field (Opp Amenity Park)		10:15	10:35	10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15
Churchfield Hill (Upper)		10:16	10:36	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16
Churchfield Hill (Lower)		10:16	10:36	10:56	11:16	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16
Churchfield Hill (Knockfree Stores)		10:17	10:37	10:57	11:17	11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17
Gurranabraher Rd (Templeacre Jctn)		10:17	10:37	10:57	11:17	11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17
Cathedral Road (Gurranabraher Rd Jctn)		10:18	10:38	10:58	11:18	11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:59	14:19
Cathedral Road (St Marys Place)		10:19	10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19
Cathedral Road (School Ave)		10:19	10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	14:00	14:20
Cathedral Road (Wolfe Tone Uppr Jctn)		10:20	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:01	14:21
Roman Street		10:22	10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:03	14:23
Upper John Street		10:23	10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:04	14:24
Mulgrave Rd		10:23	10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:05	14:25
Merchants Quay Eastbound		10:31	10:51	11:12	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:14	14:34
Victoria Rd (Opposite Neptune House)		10:36	10:56	11:17	11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:19	14:39
Victoria Rd (Kennedy Park)		10:37	10:57	11:18	11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:20	14:40
Blackrock Road (Opp Ashton Schl)		10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:22	14:42
Blackrock Road (Ashton Park)		10:39	10:59	11:20	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:22	14:42
Blackrock Road (Opp Richmond Est)		10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:23	14:43
Blackrock Road (Chiplee)		10:40	11:00	11:21	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:23	14:43
Blackrock Road (Ballintemple Pharm)		10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:24	14:44
Blackrock Road (Opp Temple Inn)		10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:25	14:45
Beaumont Drive (Beaumont Crescent)		10:42	11:02	11:23	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:25	14:45
Beaumont Drive (Opposite Spar)		10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:26	14:46
Beaumont Drive (Opp Beaumont Lawn)		10:43	11:03	11:24	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:26	14:46
Beaumont Drive (Marian Park Opp Grotto)		10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:27	14:47
Skehard Road (Clontarf Estate)		10:46	11:06	11:27	11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:29	14:49
Skehard Road (Opp Service Station)		10:47	11:07	11:28	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:30	14:50
Skehard Road (Opp CSO Office)		10:48	11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:31	14:51
Ringmahon Road (Meadow Grove Est)		10:49	11:09	11:30	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:33	14:53
Ringmahon Road (Opp Garda Stn)		10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:33	14:53
Ringmahon Road (GAA Pitch)		10:51	11:11	11:32	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:35	14:55
Ringmahon Road (Soccer Pitch)		10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:35	14:55
Ringmahon Road (Opp Cemetery)		10:52	11:12	11:33	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:36	14:56
Mahon Point (Omniplex)	arr	10:54	11:14	11:35	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:38	14:58

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday												
Hollyhill (Apple)	dep			06:50	07:10	07:30	07:50	08:10	08:30	08:50	09:10	09:30	09:50	
Harbour View Road (Hollyhill Ind Estate)				06:50	07:10	07:30	07:50	08:10	08:30	08:50	09:10	09:30	09:50	
Hollyhill (Opp Hollywood Estate)				06:51	07:11	07:31	07:51	08:11	08:31	08:51	09:11	09:31	09:51	
Hollyhill (Opp Hillcrest Estate)				06:51	07:11	07:31	07:51	08:12	08:32	08:52	09:11	09:31	09:51	
Harbour View Road (Medical Centre)				06:52	07:12	07:32	07:52	08:13	08:33	08:53	09:13	09:33	09:53	
Harbour View Road (Carbery Grove)				06:53	07:13	07:33	07:53	08:14	08:34	08:54	09:13	09:33	09:53	
Harbour View Road (Knock Ave Jctn)				06:53	07:13	07:33	07:53	08:15	08:35	08:55	09:14	09:34	09:54	
Cronins Field (Opp Amenity Park)				06:54	07:14	07:34	07:54	08:16	08:36	08:56	09:15	09:35	09:55	
Churchfield Hill (Upper)				06:54	07:14	07:34	07:54	08:17	08:37	08:57	09:16	09:36	09:56	
Churchfield Hill (Lower)				06:55	07:15	07:35	07:55	08:17	08:37	08:57	09:16	09:36	09:56	
Churchfield Hill (Knockfree Stores)				06:55	07:15	07:35	07:55	08:18	08:38	08:58	09:17	09:37	09:57	
Gurranabraher Rd (Templeacre Jctn)				06:56	07:16	07:36	07:56	08:18	08:38	08:58	09:17	09:37	09:57	
Cathedral Road (Gurranabraher Rd Jctn)				06:57	07:17	07:37	07:57	08:20	08:40	09:00	09:18	09:38	09:58	
Cathedral Road (St Marys Place)				06:57	07:17	07:37	07:57	08:20	08:40	09:00	09:19	09:39	09:59	
Cathedral Road (School Ave)				06:58	07:18	07:38	07:58	08:21	08:41	09:01	09:19	09:39	09:59	
Cathedral Road (Wolfe Tone Uppr Jctn)				06:58	07:18	07:38	07:58	08:22	08:42	09:02	09:20	09:40	10:00	
Roman Street				07:00	07:20	07:40	08:00	08:24	08:44	09:04	09:22	09:42	10:02	
Upper John Street				07:00	07:20	07:40	08:00	08:25	08:45	09:05	09:23	09:43	10:03	
Mulgrave Rd				07:01	07:21	07:41	08:01	08:26	08:46	09:06	09:23	09:43	10:03	
Merchants Quay Eastbound		06:10	06:30	06:50	07:09	07:29	07:49	08:09	08:34	08:54	09:14	09:31	09:51	10:11
Victoria Rd (Opposite Neptune House)		06:13	06:33	06:53	07:14	07:34	07:54	08:14	08:39	08:59	09:19	09:36	09:56	10:16
Victoria Rd (Kennedy Park)		06:13	06:33	06:53	07:15	07:35	07:55	08:15	08:40	09:00	09:20	09:37	09:57	10:17
Blackrock Road (Opp Ashton Schl)		06:14	06:34	06:54	07:17	07:37	07:57	08:17	08:42	09:02	09:22	09:39	09:59	10:19
Blackrock Road (Ashton Park)		06:15	06:35	06:55	07:17	07:37	07:57	08:17	08:42	09:02	09:22	09:39	09:59	10:19
Blackrock Road (Opp Richmond Est)		06:15	06:35	06:55	07:18	07:38	07:58	08:18	08:43	09:03	09:23	09:40	10:00	10:20
Blackrock Road (Chiplee)		06:16	06:36	06:56	07:18	07:38	07:58	08:18	08:43	09:03	09:23	09:40	10:00	10:20
Blackrock Road (Ballintemple Pharm)		06:16	06:36	06:56	07:19	07:39	07:59	08:19	08:44	09:04	09:24	09:41	10:01	10:21
Blackrock Road (Opp Temple Inn)		06:17	06:37	06:57	07:20	07:40	08:00	08:20	08:45	09:05	09:25	09:42	10:02	10:22
Beaumont Drive (Beaumont Crescent)		06:17	06:37	06:57	07:20	07:40	08:00	08:20	08:45	09:05	09:25	09:42	10:02	10:22
Beaumont Drive (Opposite Spar)		06:18	06:38	06:58	07:21	07:41	08:01	08:21	08:46	09:06	09:26	09:43	10:03	10:23
Beaumont Drive (Opp Beaumont Lawn)		06:18	06:38	06:58	07:21	07:41	08:01	08:21	08:46	09:06	09:26	09:43	10:03	10:23
Beaumont Drive (Marian Park Opp Grotto)		06:19	06:39	06:59	07:22	07:42	08:02	08:22	08:47	09:07	09:27	09:44	10:04	10:24
Skehard Road (Clontarf Estate)		06:20	06:40	07:00	07:24	07:44	08:04	08:24	08:49	09:09	09:29	09:46	10:06	10:26
Skehard Road (Opp Service Station)		06:21	06:41	07:01	07:25	07:45	08:05	08:25	08:50	09:10	09:30	09:47	10:07	10:27
Skehard Road (Opp CSO Office)		06:21	06:41	07:01	07:26	07:46	08:06	08:26	08:51	09:11	09:31	09:48	10:08	10:28
Ringmahon Road (Meadow Grove Est)		06:22	06:42	07:02	07:27	07:47	08:07	08:27	08:52	09:12	09:32	09:49	10:09	10:29
Ringmahon Road (Opp Garda Stn)		06:23	06:43	07:03	07:28	07:48	08:08	08:28	08:53	09:13	09:33	09:50	10:10	10:30
Ringmahon Road (GAA Pitch)		06:24	06:44	07:04	07:29	07:49	08:09	08:29	08:54	09:14	09:34	09:51	10:11	10:31
Ringmahon Road (Soccer Pitch)		06:25	06:45	07:05	07:30	07:50	08:10	08:30	08:55	09:15	09:35	09:52	10:12	10:32
Ringmahon Road (Opp Cemetery)		06:25	06:45	07:05	07:30	07:50	08:10	08:30	08:55	09:15	09:35	09:52	10:12	10:32
Mahon Point (Omniplex)	arr	06:27	06:47	07:07	07:32	07:52	08:12	08:32	08:57	09:17	09:37	09:54	10:14	10:34

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday									
Hollyhill (Apple)	dep	18:50	19:15	19:45	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Harbour View Road (Hollyhill Ind Estate)		18:50	19:15	19:45	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Hollyhill (Opp Hollywood Estate)		18:51	19:16	19:46	20:16	20:46	21:16	21:46	22:16	22:46	23:16
Hollyhill (Opp Hillcrest Estate)		18:51	19:16	19:46	20:16	20:46	21:16	21:46	22:16	22:46	23:16
Harbour View Road (Medical Centre)		18:52	19:17	19:47	20:17	20:47	21:17	21:47	22:17	22:47	23:17
Harbour View Road (Carbery Grove)		18:53	19:18	19:47	20:17	20:47	21:17	21:47	22:17	22:47	23:17
Harbour View Road (Knock Ave Jctn)		18:53	19:18	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18
Cronins Field (Opp Amenity Park)		18:54	19:19	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18
Churchfield Hill (Upper)		18:54	19:19	19:49	20:19	20:49	21:19	21:49	22:19	22:49	23:19
Churchfield Hill (Lower)		18:55	19:20	19:49	20:19	20:49	21:19	21:49	22:19	22:49	23:19
Churchfield Hill (Knockfree Stores)		18:55	19:20	19:50	20:20	20:50	21:20	21:50	22:20	22:50	23:20
Gurranabraher Rd (Templeacre Jctn)		18:56	19:21	19:50	20:20	20:50	21:20	21:50	22:20	22:50	23:20
Cathedral Road (Gurranabraher Rd Jctn)		18:57	19:22	19:51	20:21	20:51	21:21	21:51	22:21	22:51	23:21
Cathedral Road (St Marys Place)		18:57	19:22	19:51	20:21	20:51	21:21	21:51	22:21	22:51	23:21
Cathedral Road (School Ave)		18:58	19:23	19:52	20:22	20:52	21:22	21:52	22:22	22:52	23:22
Cathedral Road (Wolfe Tone Uppr Jctn)		18:59	19:24	19:53	20:23	20:52	21:22	21:52	22:22	22:52	23:22
Roman Street		19:00	19:25	19:54	20:24	20:53	21:23	21:53	22:23	22:53	23:23
Upper John Street		19:01	19:26	19:55	20:25	20:54	21:24	21:54	22:24	22:54	23:24
Mulgrave Rd		19:02	19:27	19:56	20:26	20:55	21:25	21:55	22:25	22:55	23:25
Merchants Quay Eastbound		19:08	19:33	20:01	20:31	21:00	21:30	22:00	22:30	23:00	23:30
Victoria Rd (Opposite Neptune House)		19:13	19:38	20:06	20:36	21:03	21:33	22:03	22:33	23:03	23:33
Victoria Rd (Kennedy Park)		19:14	19:39	20:07	20:37	21:04	21:34	22:04	22:34	23:04	23:34
Blackrock Road (Opp Ashton Schl)		19:16	19:41	20:08	20:38	21:05	21:35	22:05	22:35	23:05	23:35
Blackrock Road (Ashton Park)		19:16	19:41	20:09	20:39	21:05	21:35	22:05	22:35	23:05	23:35
Blackrock Road (Opp Richmond Est)		19:17	19:42	20:09	20:39	21:06	21:36	22:06	22:36	23:06	23:36
Blackrock Road (Chiplee)		19:17	19:42	20:10	20:40	21:06	21:36	22:06	22:36	23:06	23:36
Blackrock Road (Ballintemple Pharm)		19:18	19:43	20:10	20:40	21:07	21:37	22:07	22:37	23:07	23:37
Blackrock Road (Opp Temple Inn)		19:19	19:44	20:11	20:41	21:07	21:37	22:07	22:37	23:07	23:37
Beaumont Drive (Beaumont Crescent)		19:19	19:44	20:12	20:42	21:08	21:38	22:08	22:38	23:08	23:38
Beaumont Drive (Opposite Spar)		19:20	19:45	20:12	20:42	21:08	21:38	22:08	22:38	23:08	23:38
Beaumont Drive (Opp Beaumont Lawn)		19:20	19:45	20:13	20:43	21:09	21:39	22:09	22:39	23:09	23:39
Beaumont Drive (Marian Park Opp Grotto)		19:21	19:46	20:13	20:43	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Road (Clontarf Estate)		19:23	19:48	20:15	20:45	21:11	21:41	22:11	22:41	23:11	23:41
Skehard Road (Opp Service Station)		19:24	19:49	20:16	20:46	21:11	21:41	22:11	22:41	23:11	23:41
Skehard Road (Opp CSO Office)		19:25	19:50	20:16	20:46	21:12	21:42	22:12	22:42	23:12	23:42
Ringmahon Road (Meadow Grove Est)		19:26	19:51	20:17	20:47	21:13	21:43	22:13	22:43	23:13	23:43
Ringmahon Road (Opp Garda Stn)		19:27	19:52	20:18	20:48	21:13	21:43	22:13	22:43	23:13	23:43
Ringmahon Road (GAA Pitch)		19:28	19:53	20:19	20:49	21:14	21:44	22:14	22:44	23:14	23:44
Ringmahon Road (Soccer Pitch)		19:29	19:54	20:19	20:49	21:15	21:45	22:15	22:45	23:15	23:45
Ringmahon Road (Opp Cemetery)		19:29	19:54	20:20	20:50	21:15	21:45	22:15	22:45	23:15	23:45
Mahon Point (Omniplex)	arr	19:31	19:56	20:22	20:52	21:17	21:47	22:17	22:47	23:17	23:47

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday												
Hollyhill (Apple)	dep	14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30
Harbour View Road (Hollyhill Ind Estate)		14:30	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30
Hollyhill (Opp Hollywood Estate)		14:31	14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31
Hollyhill (Opp Hillcrest Estate)		14:31	14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31
Harbour View Road (Medical Centre)		14:33	14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:52	18:12	18:32
Harbour View Road (Carbery Grove)		14:33	14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:33
Harbour View Road (Knock Ave Jctn)		14:34	14:54	15:14	15:34	15:54	16:14	16:34	16:54	17:14	17:34	17:53	18:13	18:33
Cronins Field (Opp Amenity Park)		14:35	14:55	15:15	15:35	15:55	16:15	16:35	16:55	17:15	17:35	17:54	18:14	18:34
Churchfield Hill (Upper)		14:36	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:54	18:14	18:34
Churchfield Hill (Lower)		14:36	14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:55	18:15	18:35
Churchfield Hill (Knockfree Stores)		14:37	14:57	15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37	17:55	18:15	18:35
Gurranabraher Rd (Templeacre Jctn)		14:37	14:57	15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37	17:56	18:16	18:36
Cathedral Road (Gurranabraher Rd Jctn)		14:39	14:59	15:19	15:39	15:59	16:19	16:39	16:59	17:19	17:39	17:57	18:17	18:37
Cathedral Road (St Marys Place)		14:39	14:59	15:19	15:39	15:59	16:19	16:39	16:59	17:19	17:39	17:57	18:17	18:37
Cathedral Road (School Ave)		14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	17:58	18:18	18:38
Cathedral Road (Wolfe Tone Uppr Jctn)		14:41	15:01	15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41	17:59	18:19	18:39
Roman Street		14:43	15:02	15:22	15:42	16:03	16:23	16:43	17:03	17:23	17:43	18:00	18:20	18:40
Upper John Street		14:44	15:03	15:23	15:43	16:04	16:24	16:44	17:04	17:24	17:44	18:01	18:21	18:41
Mulgrave Rd		14:45	15:04	15:24	15:44	16:05	16:25	16:45	17:05	17:25	17:45	18:02	18:22	18:42
Merchants Quay Eastbound		14:54	15:12	15:32	15:52	16:14	16:34	16:54	17:14	17:34	17:54	18:10	18:30	18:50
Victoria Rd (Opposite Neptune House)		14:59	15:17	15:37	15:57	16:19	16:39	16:59	17:19	17:39	17:59	18:15	18:35	18:55
Victoria Rd (Kennedy Park)		15:00	15:18	15:38	15:58	16:20	16:40	17:00	17:20	17:40	18:00	18:16	18:36	18:56
Blackrock Road (Opp Ashton Schl)		15:02	15:19	15:39	15:59	16:22	16:42	17:02	17:22	17:42	18:02	18:18	18:38	18:58
Blackrock Road (Ashton Park)		15:02	15:20	15:40	16:00	16:22	16:42	17:02	17:22	17:42	18:02	18:18	18:38	18:58
Blackrock Road (Opp Richmond Est)		15:03	15:20	15:40	16:00	16:23	16:43	17:03	17:23	17:43	18:03	18:19	18:39	18:59
Blackrock Road (Chiplee)		15:03	15:21	15:41	16:01	16:23	16:43	17:03	17:23	17:43	18:03	18:19	18:39	18:59
Blackrock Road (Ballintemple Pharm)		15:04	15:22	15:42	16:02	16:24	16:44	17:04	17:24	17:44	18:04	18:20	18:40	19:00
Blackrock Road (Opp Temple Inn)		15:05	15:23	15:43	16:03	16:25	16:45	17:05	17:25	17:45	18:05	18:21	18:41	19:01
Beaumont Drive (Beaumont Crescent)		15:05	15:23	15:43	16:03	16:25	16:45	17:05	17:25	17:45	18:05	18:21	18:41	19:01
Beaumont Drive (Opposite Spar)		15:06	15:24	15:44	16:04	16:26	16:46	17:06	17:26	17:46	18:06	18:22	18:42	19:02
Beaumont Drive (Opp Beaumont Lawn)		15:06	15:24	15:44	16:04	16:26	16:46	17:06	17:26	17:46	18:06	18:22	18:42	19:02
Beaumont Drive (Marian Park Opp Grotto)		15:07	15:25	15:45	16:05	16:27	16:47	17:07	17:27	17:47	18:07	18:23	18:43	19:03
Skehard Road (Clontarf Estate)		15:09	15:27	15:47	16:07	16:29	16:49	17:09	17:29	17:49	18:09	18:25	18:45	19:05
Skehard Road (Opp Service Station)		15:10	15:28	15:48	16:08	16:30	16:50	17:10	17:30	17:50	18:10	18:26	18:46	19:06
Skehard Road (Opp CSO Office)		15:11	15:29	15:49	16:09	16:31	16:51	17:11	17:31	17:51	18:11	18:27	18:47	19:07
Ringmahon Road (Meadow Grove Est)		15:13	15:30	15:50	16:10	16:33	16:53	17:13	17:33	17:53	18:13	18:28	18:48	19:08
Ringmahon Road (Opp Garda Stn)		15:13	15:31	15:51	16:11	16:33	16:53	17:13	17:33	17:53	18:13	18:29	18:49	19:09
Ringmahon Road (GAA Pitch)		15:15	15:32	15:52	16:12	16:35	16:55	17:15	17:35	17:55	18:15	18:30	18:50	19:10
Ringmahon Road (Soccer Pitch)		15:15	15:33	15:53	16:13	16:35	16:55	17:15	17:35	17:55	18:15	18:31	18:51	19:11
Ringmahon Road (Opp Cemetery)		15:16	15:33	15:53	16:13	16:36	16:56	17:16	17:36	17:56	18:16	18:31	18:51	19:11
Mahon Point (Omniplex)	arr	15:18	15:35	15:55	16:15	16:38	16:58	17:18	17:38	17:58	18:18	18:33	18:53	19:13

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday												
Hollyhill (Apple)	dep	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10
Harbour View Road (Hollyhill Ind Estate)		12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10
Hollyhill (Opp Hollywood Estate)		12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11
Hollyhill (Opp Hillcrest Estate)		12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11
Harbour View Road (Medical Centre)		12:12	12:32	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13
Harbour View Road (Carbery Grove)		12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13
Harbour View Road (Knock Ave Jctn)		12:13	12:33	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14
Cronins Field (Opp Amenity Park)		12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14
Churchfield Hill (Upper)		12:14	12:34	12:55	13:15	13:35	13:55	14:15	14:35	14:55	15:15	15:35	15:55	16:15
Churchfield Hill (Lower)		12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35	14:55	15:15	15:35	15:55	16:15
Churchfield Hill (Knockfree Stores)		12:15	12:35	12:56	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16
Gurranabraher Rd (Templeacre Jctn)		12:16	12:36	12:56	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16
Cathedral Road (Gurranabraher Rd Jctn)		12:17	12:37	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18
Cathedral Road (St Marys Place)		12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18
Cathedral Road (School Ave)		12:18	12:38	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:19
Cathedral Road (Wolfe Tone Uppr Jctn)		12:19	12:39	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20
Roman Street		12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:21
Upper John Street		12:21	12:41	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22
Mulgrave Rd		12:22	12:42	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:23
Merchants Quay Eastbound		12:28	12:48	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30
Victoria Rd (Opposite Neptune House)		12:32	12:52	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14	16:34
Victoria Rd (Kennedy Park)		12:33	12:53	13:15	13:35	13:55	14:15	14:35	14:55	15:15	15:35	15:55	16:15	16:35
Blackrock Road (Opp Ashton Schl)		12:34	12:54	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16	16:36
Blackrock Road (Ashton Park)		12:34	12:54	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16	16:36
Blackrock Road (Opp Richmond Est)		12:35	12:55	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57	16:17	16:37
Blackrock Road (Chiplee)		12:35	12:55	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57	16:17	16:37
Blackrock Road (Ballintemple Pharm)		12:36	12:56	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18	16:38
Blackrock Road (Opp Temple Inn)		12:37	12:57	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:19	16:39
Beaumont Drive (Beaumont Crescent)		12:37	12:57	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:19	16:39
Beaumont Drive (Opposite Spar)		12:38	12:58	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40
Beaumont Drive (Opp Beaumont Lawn)		12:38	12:58	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40
Beaumont Drive (Marian Park Opp Grotto)		12:39	12:59	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:21	16:41
Skehard Road (Clontarf Estate)		12:41	13:01	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:23	16:43
Skehard Road (Opp Service Station)		12:42	13:02	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:24	16:44
Skehard Road (Opp CSO Office)		12:42	13:02	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:25	16:45
Ringmahon Road (Meadow Grove Est)		12:43	13:03	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26	16:46
Ringmahon Road (Opp Garda Stn)		12:43	13:03	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26	16:46
Ringmahon Road (GAA Pitch)		12:44	13:04	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08	16:28	16:48
Ringmahon Road (Soccer Pitch)		12:45	13:05	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08	16:28	16:48
Ringmahon Road (Opp Cemetery)		12:45	13:05	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:09	16:29	16:49
Mahon Point (Omniplex)	arr	12:47	13:07	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31	16:51

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday												
Hollyhill (Apple)	dep	06:45	07:15	07:45	08:15	08:45	09:15	09:45	10:10	10:30	10:50	11:10	11:30	11:50
Harbour View Road (Hollyhill Ind Estate)		06:45	07:15	07:45	08:15	08:45	09:15	09:45	10:10	10:30	10:50	11:10	11:30	11:50
Hollyhill (Opp Hollywood Estate)		06:46	07:16	07:46	08:16	08:46	09:16	09:46	10:11	10:31	10:51	11:11	11:31	11:51
Hollyhill (Opp Hillcrest Estate)		06:46	07:16	07:46	08:16	08:46	09:16	09:46	10:11	10:31	10:51	11:11	11:31	11:51
Harbour View Road (Medical Centre)		06:47	07:17	07:47	08:17	08:47	09:17	09:47	10:12	10:32	10:52	11:12	11:32	11:52
Harbour View Road (Carbery Grove)		06:48	07:18	07:48	08:18	08:48	09:18	09:48	10:13	10:33	10:53	11:13	11:33	11:53
Harbour View Road (Knock Ave Jctn)		06:48	07:18	07:48	08:18	08:48	09:18	09:48	10:13	10:33	10:53	11:13	11:33	11:53
Cronins Field (Opp Amenity Park)		06:49	07:19	07:49	08:19	08:49	09:19	09:49	10:14	10:34	10:54	11:14	11:34	11:54
Churchfield Hill (Upper)		06:49	07:19	07:49	08:19	08:49	09:19	09:49	10:14	10:34	10:54	11:14	11:34	11:54
Churchfield Hill (Lower)		06:50	07:20	07:50	08:20	08:50	09:20	09:50	10:15	10:35	10:55	11:15	11:35	11:55
Churchfield Hill (Knockfree Stores)		06:50	07:20	07:50	08:20	08:50	09:20	09:50	10:15	10:35	10:55	11:15	11:35	11:55
Gurranabraher Rd (Templeacre Jctn)		06:51	07:21	07:51	08:21	08:51	09:21	09:51	10:16	10:36	10:56	11:16	11:36	11:56
Cathedral Road (Gurranabraher Rd Jctn)		06:52	07:22	07:52	08:22	08:52	09:22	09:52	10:17	10:37	10:57	11:17	11:37	11:57
Cathedral Road (St Marys Place)		06:52	07:22	07:52	08:22	08:52	09:22	09:53	10:18	10:38	10:58	11:18	11:38	11:58
Cathedral Road (School Ave)		06:53	07:23	07:53	08:23	08:53	09:23	09:53	10:18	10:38	10:58	11:18	11:38	11:58
Cathedral Road (Wolfe Tone Uppr Jctn)		06:53	07:23	07:53	08:23	08:53	09:23	09:54	10:19	10:39	10:59	11:19	11:39	11:59
Roman Street		06:54	07:24	07:54	08:24	08:54	09:24	09:56	10:21	10:41	11:01	11:21	11:41	12:01
Upper John Street		06:55	07:25	07:55	08:25	08:55	09:25	09:56	10:21	10:41	11:01	11:21	11:41	12:01
Mulgrave Rd		06:55	07:25	07:55	08:25	08:55	09:25	09:57	10:22	10:42	11:02	11:22	11:42	12:02
Merchants Quay Eastbound		07:01	07:31	08:01	08:31	09:01	09:31	10:03	10:28	10:48	11:08	11:28	11:48	12:08
Victoria Rd (Opposite Neptune House)		07:05	07:35	08:05	08:35	09:05	09:35	10:07	10:32	10:52	11:12	11:32	11:52	12:12
Victoria Rd (Kennedy Park)		07:05	07:35	08:05	08:35	09:05	09:35	10:08	10:33	10:53	11:13	11:33	11:53	12:13
Blackrock Road (Opp Ashton Schl)		07:06	07:36	08:06	08:36	09:06	09:36	10:09	10:34	10:54	11:14	11:34	11:54	12:14
Blackrock Road (Ashton Park)		07:06	07:36	08:06	08:36	09:06	09:36	10:09	10:34	10:54	11:14	11:34	11:54	12:14
Blackrock Road (Opp Richmond Est)		07:07	07:37	08:07	08:37	09:07	09:37	10:10	10:35	10:55	11:15	11:35	11:55	12:15
Blackrock Road (Chiplee)		07:07	07:37	08:07	08:37	09:07	09:37	10:10	10:35	10:55	11:15	11:35	11:55	12:15
Blackrock Road (Ballintemple Pharm)		07:08	07:38	08:08	08:38	09:08	09:38	10:11	10:36	10:56	11:16	11:36	11:56	12:16
Blackrock Road (Opp Temple Inn)		07:08	07:38	08:08	08:38	09:08	09:38	10:12	10:37	10:57	11:17	11:37	11:57	12:17
Beaumont Drive (Beaumont Crescent)		07:09	07:39	08:09	08:39	09:09	09:39	10:12	10:37	10:57	11:17	11:37	11:57	12:17
Beaumont Drive (Opposite Spar)		07:09	07:39	08:09	08:39	09:09	09:39	10:13	10:38	10:58	11:18	11:38	11:58	12:18
Beaumont Drive (Opp Beaumont Lawn)		07:10	07:40	08:10	08:40	09:10	09:40	10:13	10:38	10:58	11:18	11:38	11:58	12:18
Beaumont Drive (Marian Park Opp Grotto)		07:10	07:40	08:10	08:40	09:10	09:40	10:14	10:39	10:59	11:19	11:39	11:59	12:19
Skehard Road (Clontarf Estate)		07:12	07:42	08:12	08:42	09:12	09:42	10:16	10:41	11:01	11:21	11:41	12:01	12:21
Skehard Road (Opp Service Station)		07:12	07:42	08:12	08:42	09:12	09:42	10:17	10:42	11:02	11:22	11:42	12:02	12:22
Skehard Road (Opp CSO Office)		07:13	07:43	08:13	08:43	09:13	09:43	10:17	10:42	11:02	11:22	11:42	12:02	12:22
Ringmahon Road (Meadow Grove Est)		07:13	07:43	08:13	08:43	09:13	09:43	10:18	10:43	11:03	11:23	11:43	12:03	12:23
Ringmahon Road (Opp Garda Stn)		07:14	07:44	08:14	08:44	09:14	09:44	10:18	10:43	11:03	11:23	11:43	12:03	12:23
Ringmahon Road (GAA Pitch)		07:15	07:45	08:15	08:45	09:15	09:45	10:19	10:44	11:04	11:24	11:44	12:04	12:24
Ringmahon Road (Soccer Pitch)		07:16	07:46	08:16	08:46	09:16	09:46	10:20	10:45	11:05	11:25	11:45	12:05	12:25
Ringmahon Road (Opp Cemetery)		07:16	07:46	08:16	08:46	09:16	09:46	10:20	10:45	11:05	11:25	11:45	12:05	12:25
Mahon Point (Omniplex)	arr	07:18	07:48	08:18	08:48	09:18	09:48	10:22	10:47	11:07	11:27	11:47	12:07	12:27

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday			
Hollyhill (Apple)	dep	21:45	22:10	22:45	23:15
Harbour View Road (Hollyhill Ind Estate)		21:45	22:10	22:45	23:15
Hollyhill (Opp Hollywood Estate)		21:46	22:11	22:46	23:16
Hollyhill (Opp Hillcrest Estate)		21:46	22:11	22:46	23:16
Harbour View Road (Medical Centre)		21:47	22:12	22:47	23:17
Harbour View Road (Carbery Grove)		21:48	22:13	22:48	23:18
Harbour View Road (Knock Ave Jctn)		21:48	22:13	22:48	23:18
Cronins Field (Opp Amenity Park)		21:49	22:14	22:49	23:19
Churchfield Hill (Upper)		21:49	22:14	22:49	23:19
Churchfield Hill (Lower)		21:50	22:15	22:50	23:20
Churchfield Hill (Knockfree Stores)		21:50	22:15	22:50	23:20
Gurranabraher Rd (Templeacre Jctn)		21:51	22:16	22:51	23:21
Cathedral Road (Gurranabraher Rd Jctn)		21:52	22:17	22:52	23:22
Cathedral Road (St Marys Place)		21:52	22:17	22:52	23:22
Cathedral Road (School Ave)		21:53	22:18	22:53	23:23
Cathedral Road (Wolfe Tone Uppr Jctn)		21:53	22:18	22:53	23:23
Roman Street		21:54	22:19	22:54	23:24
Upper John Street		21:55	22:20	22:55	23:25
Mulgrave Rd		21:55	22:20	22:55	23:25
Merchants Quay Eastbound		22:01	22:26	23:01	23:31
Victoria Rd (Opposite Neptune House)		22:04	22:29	23:04	23:34
Victoria Rd (Kennedy Park)		22:05	22:30	23:05	23:35
Blackrock Road (Opp Ashton Schl)		22:05	22:30	23:05	23:35
Blackrock Road (Ashton Park)		22:06	22:31	23:06	23:36
Blackrock Road (Opp Richmond Est)		22:06	22:31	23:06	23:36
Blackrock Road (Chiplee)		22:07	22:32	23:07	23:37
Blackrock Road (Ballintemple Pharm)		22:07	22:32	23:07	23:37
Blackrock Road (Opp Temple Inn)		22:08	22:33	23:08	23:38
Beaumont Drive (Beaumont Crescent)		22:08	22:33	23:08	23:38
Beaumont Drive (Opposite Spar)		22:09	22:34	23:09	23:39
Beaumont Drive (Opp Beaumont Lawn)		22:09	22:34	23:09	23:39
Beaumont Drive (Marian Park Opp Grotto)		22:10	22:35	23:10	23:40
Skehard Road (Clontarf Estate)		22:11	22:36	23:11	23:41
Skehard Road (Opp Service Station)		22:12	22:37	23:12	23:42
Skehard Road (Opp CSO Office)		22:12	22:37	23:12	23:42
Ringmahon Road (Meadow Grove Est)		22:13	22:38	23:13	23:43
Ringmahon Road (Opp Garda Stn)		22:13	22:38	23:13	23:43
Ringmahon Road (GAA Pitch)		22:14	22:39	23:14	23:44
Ringmahon Road (Soccer Pitch)		22:15	22:40	23:15	23:45
Ringmahon Road (Opp Cemetery)		22:15	22:40	23:15	23:45
Mahon Point (Omniplex)	arr	22:17	22:42	23:17	23:47

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday												
Hollyhill (Apple)	dep	16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:15	19:45	20:15	20:45	21:15
Harbour View Road (Hollyhill Ind Estate)		16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:15	19:45	20:15	20:45	21:15
Hollyhill (Opp Hollywood Estate)		16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:16	19:46	20:16	20:46	21:16
Hollyhill (Opp Hillcrest Estate)		16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:16	19:46	20:16	20:46	21:16
Harbour View Road (Medical Centre)		16:33	16:53	17:13	17:33	17:52	18:12	18:32	18:52	19:17	19:47	20:17	20:47	21:17
Harbour View Road (Carbery Grove)		16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:18	19:48	20:18	20:48	21:18
Harbour View Road (Knock Ave Jctn)		16:34	16:54	17:14	17:34	17:53	18:13	18:33	18:53	19:18	19:48	20:18	20:48	21:18
Cronins Field (Opp Amenity Park)		16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:19	19:49	20:19	20:49	21:19
Churchfield Hill (Upper)		16:35	16:55	17:15	17:35	17:54	18:14	18:34	18:54	19:19	19:49	20:19	20:49	21:19
Churchfield Hill (Lower)		16:35	16:55	17:15	17:35	17:55	18:15	18:35	18:55	19:20	19:50	20:20	20:50	21:20
Churchfield Hill (Knockfree Stores)		16:36	16:56	17:16	17:36	17:55	18:15	18:35	18:55	19:20	19:50	20:20	20:50	21:20
Gurranabraher Rd (Templeacre Jctn)		16:36	16:56	17:16	17:36	17:56	18:16	18:36	18:56	19:21	19:51	20:21	20:51	21:21
Cathedral Road (Gurranabraher Rd Jctn)		16:38	16:58	17:18	17:38	17:57	18:17	18:37	18:57	19:22	19:52	20:22	20:52	21:22
Cathedral Road (St Marys Place)		16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:22	19:52	20:22	20:52	21:22
Cathedral Road (School Ave)		16:39	16:59	17:19	17:39	17:58	18:18	18:38	18:58	19:23	19:53	20:23	20:53	21:23
Cathedral Road (Wolfe Tone Uppr Jctn)		16:40	17:00	17:20	17:40	17:59	18:19	18:39	18:59	19:23	19:53	20:23	20:53	21:23
Roman Street		16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:24	19:54	20:24	20:54	21:24
Upper John Street		16:42	17:02	17:22	17:42	18:01	18:21	18:41	19:01	19:25	19:55	20:25	20:55	21:25
Mulgrave Rd		16:43	17:03	17:23	17:43	18:02	18:22	18:42	19:02	19:25	19:55	20:25	20:55	21:25
Merchants Quay Eastbound		16:50	17:10	17:30	17:50	18:09	18:29	18:49	19:09	19:31	20:01	20:31	21:01	21:31
Victoria Rd (Opposite Neptune House)		16:54	17:14	17:34	17:54	18:13	18:33	18:53	19:13	19:34	20:04	20:34	21:04	21:34
Victoria Rd (Kennedy Park)		16:55	17:15	17:35	17:55	18:14	18:34	18:54	19:14	19:35	20:05	20:35	21:05	21:35
Blackrock Road (Opp Ashton Schl)		16:56	17:16	17:36	17:56	18:14	18:34	18:54	19:14	19:35	20:05	20:35	21:05	21:35
Blackrock Road (Ashton Park)		16:56	17:16	17:36	17:56	18:15	18:35	18:55	19:15	19:36	20:06	20:36	21:06	21:36
Blackrock Road (Opp Richmond Est)		16:57	17:17	17:37	17:57	18:15	18:35	18:55	19:15	19:36	20:06	20:36	21:06	21:36
Blackrock Road (Chiplee)		16:57	17:17	17:37	17:57	18:16	18:36	18:56	19:16	19:37	20:07	20:37	21:07	21:37
Blackrock Road (Ballintemple Pharm)		16:58	17:18	17:38	17:58	18:16	18:36	18:56	19:16	19:37	20:07	20:37	21:07	21:37
Blackrock Road (Opp Temple Inn)		16:59	17:19	17:39	17:59	18:17	18:37	18:57	19:17	19:38	20:08	20:38	21:08	21:38
Beaumont Drive (Beaumont Crescent)		16:59	17:19	17:39	17:59	18:18	18:38	18:58	19:18	19:38	20:08	20:38	21:08	21:38
Beaumont Drive (Opposite Spar)		17:00	17:20	17:40	18:00	18:18	18:38	18:58	19:18	19:39	20:09	20:39	21:09	21:39
Beaumont Drive (Opp Beaumont Lawn)		17:00	17:20	17:40	18:00	18:19	18:39	18:59	19:19	19:39	20:09	20:39	21:09	21:39
Beaumont Drive (Marian Park Opp Grotto)		17:01	17:21	17:41	18:01	18:19	18:39	18:59	19:19	19:40	20:10	20:40	21:10	21:40
Skehard Road (Clontarf Estate)		17:03	17:23	17:43	18:03	18:21	18:41	19:01	19:21	19:41	20:11	20:41	21:11	21:41
Skehard Road (Opp Service Station)		17:04	17:24	17:44	18:04	18:22	18:42	19:02	19:22	19:42	20:12	20:42	21:12	21:42
Skehard Road (Opp CSO Office)		17:05	17:25	17:45	18:05	18:22	18:42	19:02	19:22	19:42	20:12	20:42	21:12	21:42
Ringmahon Road (Meadow Grove Est)		17:06	17:26	17:46	18:06	18:23	18:43	19:03	19:23	19:43	20:13	20:43	21:13	21:43
Ringmahon Road (Opp Garda Stn)		17:06	17:26	17:46	18:06	18:24	18:44	19:04	19:24	19:43	20:13	20:43	21:13	21:43
Ringmahon Road (GAA Pitch)		17:08	17:28	17:48	18:08	18:25	18:45	19:05	19:25	19:44	20:14	20:44	21:14	21:44
Ringmahon Road (Soccer Pitch)		17:08	17:28	17:48	18:08	18:25	18:45	19:05	19:25	19:45	20:15	20:45	21:15	21:45
Ringmahon Road (Opp Cemetery)		17:09	17:29	17:49	18:09	18:26	18:46	19:06	19:26	19:45	20:15	20:45	21:15	21:45
Mahon Point (Omniplex)	arr	17:11	17:31	17:51	18:11	18:28	18:48	19:08	19:28	19:47	20:17	20:47	21:17	21:47

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Sunday												
Hollyhill (Apple)	dep	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:45	19:15	19:45
Harbour View Road (Hollyhill Ind Estate)		13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:45	19:15	19:45
Hollyhill (Opp Hollywood Estate)		13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:16	17:46	18:16	18:46	19:16	19:46
Hollyhill (Opp Hillcrest Estate)		13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:16	17:46	18:16	18:46	19:16	19:46
Harbour View Road (Medical Centre)		13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:48	18:17	18:47	19:17	19:47
Harbour View Road (Carbery Grove)		13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:48	18:17	18:47	19:17	19:47
Harbour View Road (Knock Ave Jctn)		13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:18	18:48	19:18	19:48
Cronins Field (Opp Amenity Park)		13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:18	18:48	19:18	19:48
Churchfield Hill (Upper)		13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:19	18:49	19:19	19:49
Churchfield Hill (Lower)		13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:19	18:49	19:19	19:49
Churchfield Hill (Knockfree Stores)		13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:21	17:51	18:20	18:50	19:20	19:50
Gurranabraher Rd (Templeacre Jctn)		13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:21	17:51	18:20	18:50	19:20	19:50
Cathedral Road (Gurranabraher Rd Jctn)		13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:21	18:51	19:21	19:51
Cathedral Road (St Marys Place)		13:53	14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:22	18:52	19:22	19:52
Cathedral Road (School Ave)		13:53	14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:22	18:52	19:22	19:52
Cathedral Road (Wolfe Tone Uppr Jctn)		13:54	14:24	14:54	15:24	15:54	16:24	16:54	17:24	17:54	18:23	18:53	19:23	19:53
Roman Street		13:56	14:26	14:56	15:26	15:56	16:26	16:56	17:26	17:56	18:24	18:54	19:24	19:54
Upper John Street		13:56	14:26	14:56	15:26	15:56	16:26	16:56	17:26	17:56	18:25	18:55	19:25	19:55
Mulgrave Rd		13:57	14:27	14:57	15:27	15:57	16:27	16:57	17:27	17:57	18:25	18:55	19:25	19:55
Merchants Quay Eastbound		14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:32	19:02	19:32	20:02
Victoria Rd (Opposite Neptune House)		14:08	14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:08	18:35	19:05	19:35	20:05
Victoria Rd (Kennedy Park)		14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:36	19:06	19:36	20:06
Blackrock Road (Opp Ashton Schl)		14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:10	18:36	19:06	19:36	20:06
Blackrock Road (Ashton Park)		14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:37	19:07	19:37	20:07
Blackrock Road (Opp Richmond Est)		14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:37	19:07	19:37	20:07
Blackrock Road (Chiplee)		14:12	14:42	15:12	15:42	16:12	16:42	17:12	17:42	18:12	18:38	19:08	19:38	20:08
Blackrock Road (Ballintemple Pharm)		14:12	14:42	15:12	15:42	16:12	16:42	17:12	17:42	18:12	18:38	19:08	19:38	20:08
Blackrock Road (Opp Temple Inn)		14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:13	18:39	19:09	19:39	20:09
Beaumont Drive (Beaumont Crescent)		14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:14	18:39	19:09	19:39	20:09
Beaumont Drive (Opposite Spar)		14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:14	18:40	19:10	19:40	20:10
Beaumont Drive (Opp Beaumont Lawn)		14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:40	19:10	19:40	20:10
Beaumont Drive (Marian Park Opp Grotto)		14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:41	19:11	19:41	20:11
Skehard Road (Clontarf Estate)		14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:48	18:18	18:43	19:13	19:43	20:13
Skehard Road (Opp Service Station)		14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:19	18:44	19:14	19:44	20:14
Skehard Road (Opp CSO Office)		14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:19	18:44	19:14	19:44	20:14
Ringmahon Road (Meadow Grove Est)		14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:20	18:45	19:15	19:45	20:15
Ringmahon Road (Opp Garda Stn)		14:21	14:51	15:21	15:51	16:21	16:51	17:21	17:51	18:21	18:46	19:16	19:46	20:16
Ringmahon Road (GAA Pitch)		14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22	18:47	19:17	19:47	20:17
Ringmahon Road (Soccer Pitch)		14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22	18:47	19:17	19:47	20:17
Ringmahon Road (Opp Cemetery)		14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:23	18:48	19:18	19:48	20:18
Mahon Point (Omniplex)	arr	14:25	14:55	15:25	15:55	16:25	16:55	17:25	17:55	18:25	18:50	19:20	19:50	20:20

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Sunday												
Hollyhill (Apple)	dep	07:15	07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45	13:15
Harbour View Road (Hollyhill Ind Estate)		07:15	07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45	13:15
Hollyhill (Opp Hollywood Estate)		07:16	07:46	08:16	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:16
Hollyhill (Opp Hillcrest Estate)		07:16	07:46	08:16	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:16
Harbour View Road (Medical Centre)		07:17	07:47	08:17	08:47	09:17	09:47	10:17	10:47	11:17	11:47	12:18	12:48	13:18
Harbour View Road (Carbery Grove)		07:17	07:47	08:17	08:47	09:17	09:47	10:17	10:48	11:18	11:48	12:18	12:48	13:18
Harbour View Road (Knock Ave Jctn)		07:18	07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:19	12:49	13:19
Cronins Field (Opp Amenity Park)		07:18	07:48	08:18	08:48	09:18	09:48	10:18	10:49	11:19	11:49	12:19	12:49	13:19
Churchfield Hill (Upper)		07:19	07:49	08:19	08:49	09:19	09:49	10:19	10:49	11:19	11:49	12:20	12:50	13:20
Churchfield Hill (Lower)		07:19	07:49	08:19	08:49	09:19	09:49	10:19	10:50	11:20	11:50	12:20	12:50	13:20
Churchfield Hill (Knockfree Stores)		07:20	07:50	08:20	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:21	12:51	13:21
Gurranabraher Rd (Templeacre Jctn)		07:20	07:50	08:20	08:50	09:20	09:50	10:20	10:51	11:21	11:51	12:21	12:51	13:21
Cathedral Road (Gurranabraher Rd Jctn)		07:21	07:51	08:21	08:51	09:21	09:51	10:21	10:52	11:22	11:52	12:22	12:52	13:22
Cathedral Road (St Marys Place)		07:21	07:51	08:22	08:52	09:22	09:52	10:22	10:52	11:22	11:52	12:23	12:53	13:23
Cathedral Road (School Ave)		07:22	07:52	08:22	08:52	09:22	09:52	10:22	10:53	11:23	11:53	12:23	12:53	13:23
Cathedral Road (Wolfe Tone Uppr Jctn)		07:22	07:52	08:23	08:53	09:23	09:53	10:23	10:53	11:23	11:53	12:24	12:54	13:24
Roman Street		07:23	07:53	08:24	08:54	09:24	09:54	10:24	10:55	11:25	11:55	12:26	12:56	13:26
Upper John Street		07:24	07:54	08:24	08:54	09:24	09:54	10:24	10:55	11:25	11:55	12:26	12:56	13:26
Mulgrave Rd		07:24	07:54	08:25	08:55	09:25	09:55	10:25	10:56	11:26	11:56	12:27	12:57	13:27
Merchants Quay Eastbound		07:30	08:00	08:31	09:01	09:31	10:01	10:31	11:02	11:32	12:03	12:35	13:05	13:35
Victoria Rd (Opposite Neptune House)		07:34	08:04	08:35	09:05	09:35	10:05	10:35	11:06	11:36	12:06	12:38	13:08	13:38
Victoria Rd (Kennedy Park)		07:34	08:04	08:35	09:05	09:35	10:05	10:35	11:06	11:36	12:07	12:39	13:09	13:39
Blackrock Road (Opp Ashton Schl)		07:35	08:05	08:36	09:06	09:36	10:06	10:36	11:07	11:37	12:07	12:40	13:10	13:40
Blackrock Road (Ashton Park)		07:35	08:05	08:36	09:06	09:36	10:06	10:36	11:07	11:37	12:08	12:41	13:11	13:41
Blackrock Road (Opp Richmond Est)		07:36	08:06	08:37	09:07	09:37	10:07	10:37	11:08	11:38	12:08	12:41	13:11	13:41
Blackrock Road (Chiplee)		07:36	08:06	08:37	09:07	09:37	10:07	10:37	11:08	11:38	12:09	12:42	13:12	13:42
Blackrock Road (Ballintemple Pharm)		07:37	08:07	08:38	09:08	09:38	10:08	10:38	11:09	11:39	12:09	12:42	13:12	13:42
Blackrock Road (Opp Temple Inn)		07:37	08:07	08:39	09:09	09:39	10:09	10:39	11:10	11:40	12:10	12:43	13:13	13:43
Beaumont Drive (Beaumont Crescent)		07:38	08:08	08:39	09:09	09:39	10:09	10:39	11:10	11:40	12:11	12:44	13:14	13:44
Beaumont Drive (Opposite Spar)		07:38	08:08	08:40	09:10	09:40	10:10	10:40	11:11	11:41	12:11	12:44	13:14	13:44
Beaumont Drive (Opp Beaumont Lawn)		07:39	08:09	08:40	09:10	09:40	10:10	10:40	11:11	11:41	12:12	12:45	13:15	13:45
Beaumont Drive (Marian Park Opp Grotto)		07:39	08:09	08:41	09:11	09:41	10:11	10:41	11:12	11:42	12:12	12:45	13:15	13:45
Skehard Road (Clontarf Estate)		07:41	08:11	08:43	09:13	09:43	10:13	10:43	11:14	11:44	12:15	12:48	13:18	13:48
Skehard Road (Opp Service Station)		07:41	08:11	08:43	09:13	09:43	10:13	10:43	11:15	11:45	12:15	12:49	13:19	13:49
Skehard Road (Opp CSO Office)		07:42	08:12	08:44	09:14	09:44	10:14	10:44	11:15	11:45	12:16	12:49	13:19	13:49
Ringmahon Road (Meadow Grove Est)		07:42	08:12	08:44	09:14	09:44	10:14	10:44	11:16	11:46	12:16	12:50	13:20	13:50
Ringmahon Road (Opp Garda Stn)		07:43	08:13	08:45	09:15	09:45	10:15	10:45	11:16	11:46	12:17	12:51	13:21	13:51
Ringmahon Road (GAA Pitch)		07:44	08:14	08:46	09:16	09:46	10:16	10:46	11:17	11:47	12:18	12:52	13:22	13:52
Ringmahon Road (Soccer Pitch)		07:44	08:14	08:46	09:16	09:46	10:16	10:46	11:18	11:48	12:18	12:52	13:22	13:52
Ringmahon Road (Opp Cemetery)		07:45	08:15	08:47	09:17	09:47	10:17	10:47	11:18	11:48	12:19	12:53	13:23	13:53
Mahon Point (Omniplex)	arr	07:47	08:17	08:49	09:19	09:49	10:19	10:49	11:20	11:50	12:21	12:55	13:25	13:55

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202

Mahon Point to Hollyhill via Merchants Quay

Operating day		Monday - Friday											
Mahon Point (Omniplex)	dep		06:30	06:50	07:10	07:30	07:50	08:10	08:30	08:50	09:10	09:30	09:50	10:10
Ringmahon Road (Riverbank)			06:31	06:51	07:11	07:31	07:51	08:11	08:31	08:51	09:11	09:31	09:51	10:11
Skehard Road (Ballinure Ave Junc)			06:33	06:53	07:13	07:33	07:53	08:13	08:33	08:53	09:13	09:33	09:53	10:13
Skehard Road (Ballinure Place)			06:33	06:53	07:13	07:33	07:53	08:13	08:33	08:53	09:13	09:33	09:53	10:13
Skehard Road (Service Station)			06:34	06:54	07:15	07:35	07:55	08:15	08:35	08:55	09:15	09:35	09:55	10:15
Church Road (Northbound)			06:36	06:56	07:17	07:37	07:57	08:17	08:37	08:57	09:17	09:37	09:57	10:17
Beaumont Drive (Marian Pk Grotto)			06:36	06:56	07:18	07:38	07:58	08:18	08:38	08:58	09:18	09:38	09:58	10:18
Beaumont Drive (Upper)			06:37	06:57	07:19	07:39	07:59	08:19	08:39	08:58	09:18	09:38	09:58	10:18
Beaumont Drive (Spar Shop)			06:37	06:57	07:19	07:39	07:59	08:19	08:39	08:59	09:19	09:39	09:59	10:19
Beaumont Drive (The Crescent Jctn)			06:38	06:58	07:20	07:40	08:00	08:20	08:40	08:59	09:19	09:39	09:59	10:19
Blackrock Road (AIB)			06:38	06:58	07:20	07:40	08:01	08:21	08:41	09:00	09:20	09:40	10:00	10:20
Blackrock Road (Ashcroft)			06:39	06:59	07:21	07:41	08:01	08:21	08:41	09:00	09:20	09:40	10:00	10:20
Blackrock Road (Janeville)			06:39	06:59	07:21	07:41	08:02	08:22	08:42	09:01	09:21	09:41	10:01	10:21
Blackrock Road (Crab Lane Jctn)			06:40	07:00	07:22	07:42	08:02	08:22	08:42	09:01	09:21	09:41	10:01	10:21
Blackrock Road (Richmond Est)			06:40	07:00	07:22	07:42	08:03	08:23	08:43	09:02	09:22	09:42	10:02	10:22
Blackrock Road (Aston Estate)			06:41	07:01	07:23	07:43	08:03	08:23	08:43	09:02	09:22	09:42	10:02	10:22
Victoria Road (Opp Marina Park)			06:41	07:01	07:23	07:43	08:05	08:25	08:45	09:03	09:23	09:43	10:03	10:23
Victoria Road (Opp Kennedy Park)			06:42	07:02	07:24	07:44	08:05	08:25	08:45	09:03	09:23	09:43	10:03	10:23
Marina Terrace (Geraldine Place)			06:42	07:02	07:24	07:44	08:06	08:26	08:46	09:04	09:24	09:44	10:04	10:24
Eglinton Street (Opp Webworks)			06:44	07:04	07:27	07:47	08:09	08:29	08:49	09:06	09:26	09:46	10:06	10:26
Merchants Quay (Dunnes Stores A)		06:30	06:51	07:11	07:35	07:55	08:18	08:38	08:58	09:15	09:35	09:55	10:15	10:35
Mulgrave Rd		06:33	06:54	07:14	07:39	07:59	08:22	08:42	09:02	09:19	09:39	09:59	10:19	10:39
Upper John Street (Maldron Hotel)		06:33	06:54	07:14	07:39	07:59	08:22	08:42	09:02	09:19	09:39	09:59	10:19	10:39
Cathedral Road (Wolfe Tone St Lwr)		06:35	06:56	07:16	07:42	08:02	08:25	08:45	09:05	09:21	09:41	10:01	10:21	10:41
Cathedral Road (St Vincents St)		06:36	06:57	07:17	07:43	08:03	08:26	08:46	09:06	09:23	09:43	10:03	10:23	10:43
Cathedral Road (St Brigids Rd)		06:37	06:58	07:18	07:44	08:04	08:27	08:47	09:07	09:23	09:43	10:03	10:23	10:43
Cathedral Road (O Hanlons Pharmacy)		06:37	06:58	07:18	07:44	08:04	08:27	08:47	09:07	09:24	09:44	10:04	10:24	10:44
Cathedral Road (Mt Eden Opp Church)		06:38	06:59	07:19	07:45	08:05	08:28	08:48	09:08	09:24	09:44	10:04	10:24	10:44
Bakers Rd (Opp Garda Stn)		06:38	06:59	07:19	07:45	08:05	08:28	08:48	09:08	09:25	09:45	10:05	10:25	10:45
Bakers Rd (St Marys Hospital)		06:39	07:00	07:20	07:46	08:06	08:29	08:49	09:09	09:25	09:45	10:05	10:25	10:45
Harbour View Road (Bakers Rd Junction)		06:39	07:00	07:20	07:47	08:07	08:30	08:50	09:10	09:26	09:46	10:06	10:26	10:46
Knocknaheeney Avenue		06:40	07:01	07:21	07:47	08:07	08:31	08:51	09:11	09:27	09:47	10:07	10:27	10:47
Kilmore Road (Lower)		06:40	07:01	07:21	07:48	08:08	08:31	08:51	09:11	09:27	09:47	10:07	10:27	10:47
Kilmore Rd (Kilmore Heights)		06:41	07:02	07:22	07:48	08:08	08:32	08:52	09:12	09:28	09:48	10:08	10:28	10:48
Kilmore Road (Courtown Drive Jctn)		06:41	07:02	07:22	07:49	08:09	08:32	08:52	09:12	09:28	09:48	10:08	10:28	10:48
Courtown Drive (Courtown Park)		06:42	07:03	07:23	07:49	08:09	08:33	08:53	09:13	09:29	09:49	10:09	10:29	10:49
Courtown Drive (Opp Scoil Mhuire)		06:42	07:03	07:23	07:50	08:10	08:33	08:53	09:13	09:29	09:49	10:09	10:29	10:49
Harbour View Road (TMS Com College)		06:43	07:04	07:24	07:50	08:10	08:34	08:54	09:14	09:30	09:50	10:10	10:30	10:50
Hollyhill (Hillcrest Estate)		06:43	07:04	07:24	07:51	08:11	08:34	08:54	09:14	09:30	09:50	10:10	10:30	10:50
Hollyhill (Hollywood Estate)		06:44	07:05	07:25	07:51	08:11	08:35	08:55	09:15	09:31	09:51	10:11	10:31	10:51
Hollyhill (National Learning Net)		06:44	07:05	07:25	07:52	08:12	08:36	08:56	09:16	09:31	09:51	10:11	10:31	10:51
Hollyhill (Apple)	arr	06:46	07:07	07:27	07:54	08:14	08:37	08:57	09:17	09:33	09:53	10:13	10:33	10:53

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202A

Hollyhill to Mahon Point via Merchants Quay

Operating day		Sunday						
Hollyhill (Apple)	dep	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Harbour View Road (Hollyhill Ind Estate)		20:15	20:45	21:15	21:45	22:15	22:45	23:15
Hollyhill (Opp Hollywood Estate)		20:16	20:46	21:16	21:46	22:16	22:46	23:16
Hollyhill (Opp Hillcrest Estate)		20:16	20:46	21:16	21:46	22:16	22:46	23:16
Harbour View Road (Medical Centre)		20:17	20:47	21:17	21:47	22:17	22:47	23:17
Harbour View Road (Carbery Grove)		20:17	20:47	21:17	21:47	22:17	22:47	23:17
Harbour View Road (Knock Ave Jctn)		20:18	20:48	21:18	21:48	22:18	22:48	23:18
Cronins Field (Opp Amenity Park)		20:18	20:48	21:18	21:48	22:18	22:48	23:18
Churchfield Hill (Upper)		20:19	20:49	21:19	21:49	22:19	22:49	23:19
Churchfield Hill (Lower)		20:19	20:49	21:19	21:49	22:19	22:49	23:19
Churchfield Hill (Knockfree Stores)		20:20	20:50	21:20	21:50	22:20	22:50	23:20
Gurranabraher Rd (Templeacre Jctn)		20:20	20:50	21:20	21:50	22:20	22:50	23:20
Cathedral Road (Gurranabraher Rd Jctn)		20:21	20:51	21:21	21:51	22:21	22:51	23:21
Cathedral Road (St Marys Place)		20:21	20:51	21:21	21:51	22:21	22:51	23:21
Cathedral Road (School Ave)		20:22	20:52	21:22	21:52	22:22	22:52	23:22
Cathedral Road (Wolfe Tone Uppr Jctn)		20:22	20:52	21:22	21:52	22:22	22:52	23:22
Roman Street		20:23	20:53	21:23	21:53	22:23	22:53	23:23
Upper John Street		20:24	20:54	21:24	21:54	22:24	22:54	23:24
Mulgrave Rd		20:24	20:54	21:24	21:54	22:24	22:54	23:24
Merchants Quay Eastbound		20:30	21:00	21:30	22:00	22:30	23:00	23:29
Victoria Rd (Opposite Neptune House)		20:33	21:03	21:33	22:03	22:33	23:03	23:33
Victoria Rd (Kennedy Park)		20:34	21:04	21:34	22:04	22:34	23:04	23:33
Blackrock Road (Opp Ashton Schl)		20:34	21:04	21:34	22:04	22:34	23:04	23:34
Blackrock Road (Ashton Park)		20:35	21:05	21:35	22:05	22:35	23:05	23:34
Blackrock Road (Opp Richmond Est)		20:35	21:05	21:35	22:05	22:35	23:05	23:35
Blackrock Road (Chiplee)		20:36	21:06	21:36	22:06	22:36	23:06	23:35
Blackrock Road (Ballintemple Pharm)		20:36	21:06	21:36	22:06	22:36	23:06	23:36
Blackrock Road (Opp Temple Inn)		20:37	21:07	21:37	22:07	22:37	23:07	23:36
Beaumont Drive (Beaumont Crescent)		20:37	21:07	21:37	22:07	22:37	23:07	23:37
Beaumont Drive (Opposite Spar)		20:38	21:08	21:38	22:08	22:38	23:08	23:37
Beaumont Drive (Opp Beaumont Lawn)		20:38	21:08	21:38	22:08	22:38	23:08	23:38
Beaumont Drive (Marian Park Opp Grotto)		20:39	21:09	21:39	22:09	22:39	23:09	23:38
Skehard Road (Clontarf Estate)		20:40	21:10	21:40	22:10	22:40	23:10	23:40
Skehard Road (Opp Service Station)		20:41	21:11	21:41	22:11	22:41	23:11	23:40
Skehard Road (Opp CSO Office)		20:41	21:11	21:41	22:11	22:41	23:11	23:41
Ringmahon Road (Meadow Grove Est)		20:42	21:12	21:42	22:12	22:42	23:12	23:41
Ringmahon Road (Opp Garda Stn)		20:42	21:12	21:42	22:12	22:42	23:12	23:42
Ringmahon Road (GAA Pitch)		20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ringmahon Road (Soccer Pitch)		20:44	21:14	21:44	22:14	22:44	23:14	23:43
Ringmahon Road (Opp Cemetery)		20:44	21:14	21:44	22:14	22:44	23:14	23:44
Mahon Point (Omniplex)	arr	20:46	21:16	21:46	22:16	22:46	23:16	23:46

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Monday - Friday												
Mahon Point (Omniplex)	dep	14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50
Ringmahon Road (Riverbank)		14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51
Skehard Road (Ballinure Ave Junc)		14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:52	18:12	18:32	18:53
Skehard Road (Ballinure Place)		14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:53
Skehard Road (Service Station)		14:55	15:15	15:35	15:56	16:16	16:36	16:56	17:16	17:36	17:55	18:15	18:35	18:55
Church Road (Northbound)		14:58	15:18	15:38	16:00	16:20	16:40	17:00	17:20	17:40	17:58	18:18	18:38	18:57
Beaumont Drive (Marian Pk Grotto)		14:59	15:19	15:39	16:00	16:20	16:40	17:00	17:20	17:40	17:59	18:19	18:39	18:58
Beaumont Drive (Upper)		14:59	15:19	15:39	16:01	16:21	16:41	17:01	17:21	17:41	17:59	18:19	18:39	18:58
Beaumont Drive (Spar Shop)		15:00	15:20	15:40	16:01	16:21	16:41	17:01	17:21	17:41	18:00	18:20	18:40	18:59
Beaumont Drive (The Crescent Jctn)		15:00	15:20	15:40	16:02	16:22	16:42	17:02	17:22	17:42	18:00	18:20	18:40	18:59
Blackrock Road (AIB)		15:01	15:21	15:41	16:02	16:22	16:42	17:02	17:22	17:42	18:01	18:21	18:41	19:00
Blackrock Road (Ashcroft)		15:01	15:21	15:41	16:03	16:23	16:43	17:03	17:23	17:43	18:01	18:21	18:41	19:00
Blackrock Road (Janeville)		15:02	15:22	15:42	16:03	16:23	16:43	17:03	17:23	17:43	18:02	18:22	18:42	19:01
Blackrock Road (Crab Lane Jctn)		15:02	15:22	15:42	16:04	16:24	16:44	17:04	17:24	17:44	18:02	18:22	18:42	19:01
Blackrock Road (Richmond Est)		15:03	15:23	15:43	16:04	16:24	16:44	17:04	17:24	17:44	18:03	18:23	18:43	19:02
Blackrock Road (Aston Estate)		15:03	15:23	15:43	16:05	16:25	16:45	17:05	17:25	17:45	18:03	18:23	18:43	19:02
Victoria Road (Opp Marina Park)		15:04	15:24	15:44	16:06	16:26	16:46	17:06	17:26	17:46	18:04	18:24	18:44	19:03
Victoria Road (Opp Kennedy Park)		15:04	15:24	15:44	16:07	16:27	16:47	17:07	17:27	17:47	18:04	18:24	18:44	19:03
Marina Terrace (Geraldine Place)		15:05	15:25	15:45	16:08	16:28	16:48	17:08	17:28	17:48	18:05	18:25	18:45	19:04
Eglinton Street (Opp Webworks)		15:08	15:28	15:48	16:12	16:32	16:52	17:12	17:32	17:52	18:08	18:28	18:48	19:06
Merchants Quay (Dunnes Stores A)		15:16	15:36	15:56	16:20	16:40	17:00	17:20	17:40	18:02	18:15	18:35	18:55	19:13
Mulgrave Rd		15:20	15:40	16:00	16:24	16:44	17:04	17:24	17:44	18:06	18:19	18:39	18:59	19:17
Upper John Street (Maldron Hotel)		15:21	15:41	16:01	16:24	16:44	17:04	17:24	17:44	18:06	18:20	18:40	19:00	19:18
Cathedral Road (Wolfe Tone St Lwr)		15:23	15:43	16:03	16:27	16:47	17:07	17:27	17:47	18:09	18:22	18:42	19:02	19:20
Cathedral Road (St Vincents St)		15:24	15:44	16:04	16:28	16:48	17:08	17:28	17:48	18:10	18:24	18:44	19:04	19:21
Cathedral Road (St Brigids Rd)		15:25	15:45	16:05	16:29	16:49	17:09	17:29	17:49	18:11	18:24	18:44	19:04	19:22
Cathedral Road (O Hanlons Pharmacy)		15:25	15:45	16:05	16:30	16:50	17:10	17:30	17:50	18:12	18:25	18:45	19:05	19:22
Cathedral Road (Mt Eden Opp Church)		15:26	15:46	16:06	16:30	16:50	17:10	17:30	17:50	18:12	18:25	18:45	19:05	19:23
Bakers Rd (Opp Garda Stn)		15:26	15:46	16:06	16:31	16:51	17:11	17:31	17:51	18:13	18:26	18:46	19:06	19:23
Bakers Rd (St Marys Hospital)		15:27	15:47	16:07	16:31	16:51	17:11	17:31	17:51	18:13	18:26	18:46	19:06	19:24
Harbour View Road (Bakers Rd Junction)		15:28	15:48	16:08	16:33	16:53	17:13	17:33	17:53	18:15	18:27	18:47	19:07	19:25
Knocknaheeney Avenue		15:29	15:49	16:09	16:34	16:54	17:14	17:34	17:54	18:16	18:28	18:48	19:08	19:25
Kilmore Road (Lower)		15:30	15:50	16:10	16:35	16:55	17:15	17:35	17:55	18:17	18:28	18:48	19:08	19:26
Kilmore Rd (Kilmore Heights)		15:31	15:51	16:11	16:36	16:56	17:16	17:36	17:56	18:18	18:29	18:49	19:09	19:26
Kilmore Road (Courtown Drive Jctn)		15:32	15:52	16:12	16:36	16:56	17:16	17:36	17:56	18:18	18:29	18:49	19:09	19:27
Courtown Drive (Courtown Park)		15:32	15:52	16:12	16:37	16:57	17:17	17:37	17:57	18:19	18:30	18:50	19:10	19:27
Courtown Drive (Opp Scoil Mhuire)		15:33	15:53	16:13	16:37	16:57	17:17	17:37	17:57	18:19	18:30	18:50	19:10	19:28
Harbour View Road (TMS Com College)		15:33	15:53	16:13	16:38	16:58	17:18	17:38	17:58	18:20	18:31	18:51	19:11	19:28
Hollyhill (Hillcrest Estate)		15:34	15:54	16:14	16:38	16:58	17:18	17:38	17:58	18:20	18:31	18:51	19:11	19:29
Hollyhill (Hollywood Estate)		15:34	15:54	16:14	16:39	16:59	17:19	17:39	17:59	18:21	18:32	18:52	19:12	19:29
Hollyhill (National Learning Net)		15:35	15:55	16:15	16:40	17:00	17:20	17:40	18:00	18:22	18:33	18:53	19:13	19:30
Hollyhill (Apple)	arr	15:37	15:57	16:17	16:42	17:02	17:22	17:42	18:02	18:24	18:34	18:54	19:14	19:31

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Monday - Friday												
Mahon Point (Omniplex)	dep	10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30
Ringmahon Road (Riverbank)		10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31
Skehard Road (Ballinure Ave Junc)		10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33
Skehard Road (Ballinure Place)		10:33	10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33
Skehard Road (Service Station)		10:35	10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35
Church Road (Northbound)		10:37	10:57	11:17	11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37
Beaumont Drive (Marian Pk Grotto)		10:38	10:58	11:18	11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38
Beaumont Drive (Upper)		10:38	10:58	11:18	11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38
Beaumont Drive (Spar Shop)		10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39
Beaumont Drive (The Crescent Jctn)		10:39	10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39
Blackrock Road (AIB)		10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40
Blackrock Road (Ashcroft)		10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40
Blackrock Road (Janeville)		10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41
Blackrock Road (Crab Lane Jctn)		10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41
Blackrock Road (Richmond Est)		10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42
Blackrock Road (Aston Estate)		10:42	11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42
Victoria Road (Opp Marina Park)		10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43
Victoria Road (Opp Kennedy Park)		10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43
Marina Terrace (Geraldine Place)		10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44
Eglinton Street (Opp Webworks)		10:46	11:06	11:26	11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46
Merchants Quay (Dunnes Stores A)		10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35	14:55
Mulgrave Rd		10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59
Upper John Street (Maldron Hotel)		10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59
Cathedral Road (Wolfe Tone St Lwr)		11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01
Cathedral Road (St Vincents St)		11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03
Cathedral Road (St Brigids Rd)		11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03
Cathedral Road (O Hanlons Pharmacy)		11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04
Cathedral Road (Mt Eden Opp Church)		11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04
Bakers Rd (Opp Garda Stn)		11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05
Bakers Rd (St Marys Hospital)		11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05
Harbour View Road (Bakers Rd Junction)		11:06	11:26	11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06
Knocknaheeney Avenue		11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47	15:07
Kilmore Road (Lower)		11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47	15:07
Kilmore Rd (Kilmore Heights)		11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08
Kilmore Road (Courtown Drive Jctn)		11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08
Courtown Drive (Courtown Park)		11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09
Courtown Drive (Opp Scoil Mhuire)		11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09
Harbour View Road (TMS Com College)		11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10
Hollyhill (Hillcrest Estate)		11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10
Hollyhill (Hollywood Estate)		11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11
Hollyhill (National Learning Net)		11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11
Hollyhill (Apple)	arr	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Saturday											
Mahon Point (Omniplex)	dep			07:15	07:45	08:15	08:45	09:15	09:45	10:10	10:30	10:50	11:10	11:30
Ringmahon Road (Riverbank)				07:16	07:46	08:16	08:46	09:16	09:46	10:11	10:31	10:51	11:11	11:31
Skehard Road (Ballinure Ave Junc)				07:17	07:47	08:17	08:47	09:17	09:47	10:12	10:32	10:52	11:12	11:32
Skehard Road (Ballinure Place)				07:18	07:48	08:18	08:48	09:18	09:48	10:13	10:33	10:53	11:13	11:33
Skehard Road (Service Station)				07:19	07:49	08:19	08:49	09:19	09:49	10:14	10:34	10:54	11:14	11:34
Church Road (Northbound)				07:21	07:51	08:21	08:51	09:21	09:51	10:16	10:37	10:57	11:17	11:37
Beaumont Drive (Marian Pk Grotto)				07:21	07:51	08:21	08:51	09:21	09:51	10:16	10:37	10:57	11:17	11:37
Beaumont Drive (Upper)				07:22	07:52	08:22	08:52	09:22	09:52	10:17	10:38	10:58	11:18	11:38
Beaumont Drive (Spar Shop)				07:22	07:52	08:22	08:52	09:22	09:52	10:17	10:38	10:58	11:18	11:38
Beaumont Drive (The Crescent Jctn)				07:23	07:53	08:23	08:53	09:23	09:53	10:18	10:39	10:59	11:19	11:39
Blackrock Road (AIB)				07:23	07:53	08:23	08:53	09:23	09:53	10:18	10:39	10:59	11:19	11:39
Blackrock Road (Ashcroft)				07:24	07:54	08:24	08:54	09:24	09:54	10:19	10:40	11:00	11:20	11:40
Blackrock Road (Janeville)				07:24	07:54	08:24	08:54	09:24	09:54	10:19	10:40	11:00	11:20	11:40
Blackrock Road (Crab Lane Jctn)				07:25	07:55	08:25	08:55	09:25	09:55	10:20	10:41	11:01	11:21	11:41
Blackrock Road (Richmond Est)				07:25	07:55	08:25	08:55	09:25	09:55	10:20	10:41	11:01	11:21	11:41
Blackrock Road (Aston Estate)				07:26	07:56	08:26	08:56	09:26	09:56	10:21	10:42	11:02	11:22	11:42
Victoria Road (Opp Marina Park)				07:26	07:56	08:26	08:56	09:26	09:56	10:21	10:42	11:02	11:22	11:42
Victoria Road (Opp Kennedy Park)				07:27	07:57	08:27	08:57	09:27	09:57	10:22	10:43	11:03	11:23	11:43
Marina Terrace (Geraldine Place)				07:27	07:57	08:27	08:57	09:27	09:57	10:22	10:43	11:03	11:23	11:43
Eglinton Street (Opp Webworks)				07:29	07:59	08:29	08:59	09:29	09:59	10:24	10:46	11:06	11:26	11:46
Merchants Quay (Dunnes Stores A)		06:40	07:10	07:35	08:05	08:35	09:05	09:35	10:05	10:30	10:51	11:11	11:32	11:52
Mulgrave Rd		06:43	07:13	07:38	08:08	08:38	09:08	09:38	10:08	10:33	10:54	11:14	11:35	11:55
Upper John Street (Maldron Hotel)		06:43	07:13	07:39	08:09	08:39	09:09	09:39	10:09	10:34	10:54	11:14	11:35	11:55
Cathedral Road (Wolfe Tone St Lwr)		06:45	07:15	07:40	08:10	08:40	09:10	09:40	10:10	10:35	10:56	11:16	11:37	11:57
Cathedral Road (St Vincents St)		06:46	07:16	07:41	08:11	08:41	09:11	09:41	10:11	10:36	10:58	11:18	11:39	11:59
Cathedral Road (St Brigids Rd)		06:46	07:16	07:42	08:12	08:42	09:12	09:42	10:12	10:37	10:58	11:18	11:39	11:59
Cathedral Road (O Hanlons Pharmacy)		06:47	07:17	07:42	08:12	08:42	09:12	09:42	10:12	10:37	10:59	11:19	11:40	12:00
Cathedral Road (Mt Eden Opp Church)		06:47	07:17	07:43	08:13	08:43	09:13	09:43	10:13	10:38	10:59	11:19	11:40	12:00
Bakers Rd (Opp Garda Stn)		06:48	07:18	07:43	08:13	08:43	09:13	09:43	10:13	10:38	11:00	11:20	11:41	12:01
Bakers Rd (St Marys Hospital)		06:48	07:18	07:44	08:14	08:44	09:14	09:44	10:14	10:39	11:00	11:20	11:41	12:01
Harbour View Road (Bakers Rd Junction)		06:49	07:19	07:44	08:14	08:44	09:14	09:44	10:14	10:39	11:01	11:21	11:42	12:02
Knocknaheeney Avenue		06:49	07:19	07:45	08:15	08:45	09:15	09:45	10:15	10:40	11:02	11:22	11:43	12:03
Kilmore Road (Lower)		06:50	07:20	07:45	08:15	08:45	09:15	09:45	10:15	10:40	11:02	11:22	11:43	12:03
Kilmore Rd (Kilmore Heights)		06:50	07:20	07:46	08:16	08:46	09:16	09:46	10:16	10:41	11:03	11:23	11:44	12:04
Kilmore Road (Courtown Drive Jctn)		06:51	07:21	07:46	08:16	08:46	09:16	09:46	10:16	10:41	11:03	11:23	11:44	12:04
Courtown Drive (Courtown Park)		06:51	07:21	07:47	08:17	08:47	09:17	09:47	10:17	10:42	11:04	11:24	11:45	12:05
Courtown Drive (Opp Scoil Mhuire)		06:52	07:22	07:47	08:17	08:47	09:17	09:47	10:17	10:42	11:04	11:24	11:45	12:05
Harbour View Road (TMS Com College)		06:52	07:22	07:48	08:18	08:48	09:18	09:48	10:18	10:43	11:05	11:25	11:46	12:06
Hollyhill (Hillcrest Estate)		06:53	07:23	07:48	08:18	08:48	09:18	09:48	10:18	10:43	11:05	11:25	11:46	12:06
Hollyhill (Hollywood Estate)		06:53	07:23	07:49	08:19	08:49	09:19	09:49	10:19	10:44	11:06	11:26	11:47	12:07
Hollyhill (National Learning Net)		06:54	07:24	07:49	08:19	08:49	09:19	09:49	10:19	10:44	11:07	11:27	11:48	12:08
Hollyhill (Apple)	arr	06:55	07:25	07:51	08:21	08:51	09:21	09:51	10:21	10:46	11:08	11:28	11:49	12:09

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Monday - Friday								
Mahon Point (Omniplex)	dep	19:15	19:45	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Ringmahon Road (Riverbank)		19:16	19:46	20:16	20:46	21:16	21:46	22:16	22:46	23:16
Skehard Road (Ballinure Ave Junc)		19:18	19:48	20:17	20:47	21:17	21:47	22:17	22:47	23:17
Skehard Road (Ballinure Place)		19:18	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18
Skehard Road (Service Station)		19:20	19:50	20:19	20:49	21:19	21:49	22:19	22:49	23:19
Church Road (Northbound)		19:22	19:52	20:20	20:50	21:20	21:50	22:20	22:50	23:20
Beaumont Drive (Marian Pk Grotto)		19:23	19:53	20:21	20:51	21:21	21:51	22:21	22:51	23:21
Beaumont Drive (Upper)		19:23	19:53	20:21	20:51	21:21	21:51	22:21	22:51	23:21
Beaumont Drive (Spar Shop)		19:24	19:54	20:22	20:52	21:22	21:52	22:22	22:52	23:22
Beaumont Drive (The Crescent Jctn)		19:24	19:54	20:22	20:52	21:22	21:52	22:22	22:52	23:22
Blackrock Road (AIB)		19:25	19:55	20:23	20:53	21:23	21:53	22:23	22:53	23:23
Blackrock Road (Ashcroft)		19:25	19:55	20:23	20:53	21:23	21:53	22:23	22:53	23:23
Blackrock Road (Janeville)		19:26	19:56	20:24	20:54	21:24	21:54	22:24	22:54	23:24
Blackrock Road (Crab Lane Jctn)		19:26	19:56	20:24	20:54	21:24	21:54	22:24	22:54	23:24
Blackrock Road (Richmond Est)		19:27	19:57	20:25	20:55	21:25	21:55	22:25	22:55	23:25
Blackrock Road (Aston Estate)		19:27	19:57	20:25	20:55	21:25	21:55	22:25	22:55	23:25
Victoria Road (Opp Marina Park)		19:28	19:58	20:26	20:56	21:26	21:56	22:26	22:56	23:26
Victoria Road (Opp Kennedy Park)		19:28	19:58	20:26	20:56	21:26	21:56	22:26	22:56	23:26
Marina Terrace (Geraldine Place)		19:29	19:59	20:27	20:57	21:27	21:57	22:27	22:57	23:27
Eglinton Street (Opp Webworks)		19:31	20:01	20:28	20:58	21:28	21:58	22:28	22:58	23:28
Merchants Quay (Dunnes Stores A)		19:38	20:08	20:34	21:04	21:34	22:04	22:34	23:04	23:34
Mulgrave Rd		19:42	20:12	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Upper John Street (Maldron Hotel)		19:43	20:13	20:38	21:08	21:38	22:08	22:38	23:08	23:38
Cathedral Road (Wolfe Tone St Lwr)		19:45	20:15	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Cathedral Road (St Vincents St)		19:46	20:16	20:40	21:10	21:40	22:10	22:40	23:10	23:40
Cathedral Road (St Brigids Rd)		19:47	20:17	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Cathedral Road (O Hanlons Pharmacy)		19:47	20:17	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Cathedral Road (Mt Eden Opp Church)		19:48	20:18	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Bakers Rd (Opp Garda Stn)		19:48	20:18	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Bakers Rd (St Marys Hospital)		19:49	20:19	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Harbour View Road (Bakers Rd Junction)		19:50	20:20	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Knocknaheeney Avenue		19:50	20:20	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Kilmore Road (Lower)		19:51	20:21	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Kilmore Rd (Kilmore Heights)		19:51	20:21	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Kilmore Road (Courtown Drive Jctn)		19:52	20:22	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Courtown Drive (Courtown Park)		19:52	20:22	20:46	21:16	21:46	22:16	22:46	23:16	23:46
Courtown Drive (Opp Scoil Mhuire)		19:53	20:23	20:46	21:16	21:46	22:16	22:46	23:16	23:46
Harbour View Road (TMS Com College)		19:53	20:23	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Hollyhill (Hillcrest Estate)		19:54	20:24	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Hollyhill (Hollywood Estate)		19:54	20:24	20:48	21:18	21:48	22:18	22:48	23:18	23:48
Hollyhill (National Learning Net)		19:55	20:25	20:48	21:18	21:48	22:18	22:48	23:18	23:48
Hollyhill (Apple)	arr	19:56	20:26	20:50	21:20	21:50	22:20	22:50	23:20	23:50

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Saturday												
Mahon Point (Omniplex)	dep	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:15	19:45	20:15	20:45
Ringmahon Road (Riverbank)		16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:16	19:46	20:16	20:46
Skehard Road (Ballinure Ave Junc)		16:12	16:32	16:52	17:12	17:32	17:52	18:12	18:32	18:52	19:17	19:47	20:17	20:47
Skehard Road (Ballinure Place)		16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:18	19:48	20:18	20:48
Skehard Road (Service Station)		16:14	16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:19	19:49	20:19	20:49
Church Road (Northbound)		16:17	16:37	16:57	17:17	17:37	17:57	18:17	18:37	18:56	19:21	19:51	20:21	20:51
Beaumont Drive (Marian Pk Grotto)		16:17	16:37	16:57	17:17	17:37	17:57	18:17	18:37	18:57	19:22	19:52	20:22	20:52
Beaumont Drive (Upper)		16:18	16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:57	19:22	19:52	20:22	20:52
Beaumont Drive (Spar Shop)		16:18	16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:23	19:53	20:23	20:53
Beaumont Drive (The Crescent Jctn)		16:19	16:39	16:59	17:19	17:39	17:59	18:19	18:39	18:58	19:23	19:53	20:23	20:53
Blackrock Road (AIB)		16:19	16:39	16:59	17:19	17:39	17:59	18:19	18:39	18:59	19:24	19:54	20:24	20:54
Blackrock Road (Ashcroft)		16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40	18:59	19:24	19:54	20:24	20:54
Blackrock Road (Janeville)		16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:25	19:55	20:25	20:55
Blackrock Road (Crab Lane Jctn)		16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:00	19:25	19:55	20:25	20:55
Blackrock Road (Richmond Est)		16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:26	19:56	20:26	20:56
Blackrock Road (Aston Estate)		16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:01	19:26	19:56	20:26	20:56
Victoria Road (Opp Marina Park)		16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:27	19:57	20:27	20:57
Victoria Road (Opp Kennedy Park)		16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:02	19:27	19:57	20:27	20:57
Marina Terrace (Geraldine Place)		16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:28	19:58	20:28	20:58
Eglinton Street (Opp Webworks)		16:26	16:46	17:06	17:26	17:46	18:06	18:26	18:46	19:04	19:29	19:59	20:29	20:59
Merchants Quay (Dunnes Stores A)		16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:10	19:35	20:05	20:35	21:05
Mulgrave Rd		16:36	16:56	17:16	17:36	17:56	18:16	18:36	18:56	19:13	19:38	20:08	20:38	21:08
Upper John Street (Maldron Hotel)		16:36	16:56	17:16	17:36	17:56	18:16	18:36	18:56	19:13	19:38	20:08	20:39	21:09
Cathedral Road (Wolfe Tone St Lwr)		16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:15	19:40	20:10	20:40	21:10
Cathedral Road (St Vincents St)		16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:16	19:41	20:11	20:41	21:11
Cathedral Road (St Brigids Rd)		16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:16	19:41	20:11	20:42	21:12
Cathedral Road (O Hanlons Pharmacy)		16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:17	19:42	20:12	20:42	21:12
Cathedral Road (Mt Eden Opp Church)		16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:17	19:42	20:12	20:43	21:13
Bakers Rd (Opp Garda Stn)		16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:18	19:43	20:13	20:43	21:13
Bakers Rd (St Marys Hospital)		16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:18	19:43	20:13	20:44	21:14
Harbour View Road (Bakers Rd Junction)		16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:19	19:44	20:14	20:44	21:14
Knocknaheeney Avenue		16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:19	19:44	20:14	20:45	21:15
Kilmore Road (Lower)		16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:20	19:45	20:15	20:45	21:15
Kilmore Rd (Kilmore Heights)		16:45	17:05	17:25	17:45	18:05	18:25	18:45	19:05	19:20	19:45	20:15	20:46	21:16
Kilmore Road (Courtown Drive Jctn)		16:45	17:05	17:25	17:45	18:05	18:25	18:45	19:05	19:21	19:46	20:16	20:46	21:16
Courtown Drive (Courtown Park)		16:46	17:06	17:26	17:46	18:06	18:26	18:46	19:06	19:21	19:46	20:16	20:47	21:17
Courtown Drive (Opp Scoil Mhuire)		16:46	17:06	17:26	17:46	18:06	18:26	18:46	19:06	19:22	19:47	20:17	20:47	21:17
Harbour View Road (TMS Com College)		16:47	17:07	17:27	17:47	18:07	18:27	18:47	19:07	19:22	19:47	20:17	20:48	21:18
Hollyhill (Hillcrest Estate)		16:47	17:07	17:27	17:47	18:07	18:27	18:47	19:07	19:23	19:48	20:18	20:48	21:18
Hollyhill (Hollywood Estate)		16:48	17:08	17:28	17:48	18:08	18:28	18:48	19:08	19:23	19:48	20:18	20:49	21:19
Hollyhill (National Learning Net)		16:49	17:09	17:29	17:49	18:09	18:29	18:49	19:09	19:24	19:49	20:19	20:50	21:20
Hollyhill (Apple)	arr	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:10	19:26	19:51	20:21	20:51	21:21

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202

Mahon Point to Hollyhill via Merchants Quay

Operating day		Saturday												
Mahon Point (Omniplex)	dep	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50
Ringmahon Road (Riverbank)		11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51
Skehard Road (Ballinure Ave Junc)		11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52
Skehard Road (Ballinure Place)		11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53
Skehard Road (Service Station)		11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54
Church Road (Northbound)		11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57
Beaumont Drive (Marian Pk Grotto)		11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57
Beaumont Drive (Upper)		11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58
Beaumont Drive (Spar Shop)		11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58
Beaumont Drive (The Crescent Jctn)		11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59
Blackrock Road (AIB)		11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59
Blackrock Road (Ashcroft)		12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00
Blackrock Road (Janeville)		12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00
Blackrock Road (Crab Lane Jctn)		12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01
Blackrock Road (Richmond Est)		12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01
Blackrock Road (Aston Estate)		12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02
Victoria Road (Opp Marina Park)		12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02
Victoria Road (Opp Kennedy Park)		12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03
Marina Terrace (Geraldine Place)		12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03
Eglinton Street (Opp Webworks)		12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06
Merchants Quay (Dunnes Stores A)		12:11	12:31	12:51	13:11	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13
Mulgrave Rd		12:14	12:34	12:54	13:14	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16
Upper John Street (Maldron Hotel)		12:14	12:34	12:54	13:14	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16
Cathedral Road (Wolfe Tone St Lwr)		12:16	12:36	12:56	13:16	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18
Cathedral Road (St Vincents St)		12:18	12:38	12:58	13:18	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20
Cathedral Road (St Brigids Rd)		12:18	12:38	12:58	13:18	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20
Cathedral Road (O Hanlons Pharmacy)		12:19	12:39	12:59	13:19	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:21
Cathedral Road (Mt Eden Opp Church)		12:19	12:39	12:59	13:19	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:21
Bakers Rd (Opp Garda Stn)		12:20	12:40	13:00	13:20	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22
Bakers Rd (St Marys Hospital)		12:20	12:40	13:00	13:20	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22
Harbour View Road (Bakers Rd Junction)		12:21	12:41	13:01	13:21	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:23
Knocknaheeney Avenue		12:22	12:42	13:02	13:22	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:24
Kilmore Road (Lower)		12:22	12:42	13:02	13:22	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:24
Kilmore Rd (Kilmore Heights)		12:23	12:43	13:03	13:23	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:25
Kilmore Road (Courtown Drive Jctn)		12:23	12:43	13:03	13:23	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:25
Courtown Drive (Courtown Park)		12:24	12:44	13:04	13:24	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26
Courtown Drive (Opp Scoil Mhuire)		12:24	12:44	13:04	13:24	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26
Harbour View Road (TMS Com College)		12:25	12:45	13:05	13:25	13:47	14:07	14:27	14:47	15:07	15:27	15:47	16:07	16:27
Hollyhill (Hillcrest Estate)		12:25	12:45	13:05	13:25	13:47	14:07	14:27	14:47	15:07	15:27	15:47	16:07	16:27
Hollyhill (Hollywood Estate)		12:26	12:46	13:06	13:26	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08	16:28
Hollyhill (National Learning Net)		12:27	12:47	13:07	13:27	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:09	16:29
Hollyhill (Apple)	arr	12:28	12:48	13:08	13:28	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Sunday												
Mahon Point (Omniplex)	dep	07:15	07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45	13:15
Ringmahon Road (Riverbank)		07:16	07:46	08:16	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:16
Skehard Road (Ballinure Ave Junc)		07:17	07:47	08:17	08:47	09:17	09:47	10:17	10:47	11:17	11:47	12:17	12:47	13:17
Skehard Road (Ballinure Place)		07:18	07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48	13:18
Skehard Road (Service Station)		07:19	07:49	08:19	08:49	09:19	09:49	10:19	10:49	11:19	11:49	12:19	12:49	13:19
Church Road (Northbound)		07:20	07:50	08:20	08:50	09:20	09:50	10:20	10:51	11:21	11:51	12:21	12:51	13:21
Beaumont Drive (Marian Pk Grotto)		07:21	07:51	08:21	08:51	09:21	09:51	10:21	10:52	11:22	11:52	12:22	12:52	13:22
Beaumont Drive (Upper)		07:21	07:51	08:21	08:51	09:21	09:51	10:21	10:52	11:22	11:52	12:22	12:52	13:22
Beaumont Drive (Spar Shop)		07:22	07:52	08:22	08:52	09:22	09:52	10:22	10:53	11:23	11:53	12:23	12:53	13:23
Beaumont Drive (The Crescent Jctn)		07:22	07:52	08:22	08:52	09:22	09:52	10:22	10:53	11:23	11:53	12:23	12:53	13:23
Blackrock Road (AIB)		07:23	07:53	08:23	08:53	09:23	09:53	10:23	10:54	11:24	11:54	12:24	12:54	13:24
Blackrock Road (Ashcroft)		07:23	07:53	08:23	08:53	09:23	09:53	10:23	10:54	11:24	11:54	12:24	12:54	13:24
Blackrock Road (Janeville)		07:24	07:54	08:24	08:54	09:24	09:54	10:24	10:55	11:25	11:55	12:25	12:55	13:25
Blackrock Road (Crab Lane Jctn)		07:24	07:54	08:24	08:54	09:24	09:54	10:24	10:55	11:25	11:55	12:25	12:55	13:25
Blackrock Road (Richmond Est)		07:25	07:55	08:25	08:55	09:25	09:55	10:25	10:56	11:26	11:56	12:26	12:56	13:26
Blackrock Road (Aston Estate)		07:25	07:55	08:25	08:55	09:25	09:55	10:25	10:56	11:26	11:56	12:26	12:56	13:26
Victoria Road (Opp Marina Park)		07:26	07:56	08:26	08:56	09:26	09:56	10:26	10:57	11:27	11:57	12:27	12:57	13:27
Victoria Road (Opp Kennedy Park)		07:26	07:56	08:26	08:56	09:26	09:56	10:26	10:57	11:27	11:57	12:27	12:57	13:27
Marina Terrace (Geraldine Place)		07:27	07:57	08:27	08:57	09:27	09:57	10:27	10:58	11:28	11:58	12:28	12:58	13:28
Eglinton Street (Opp Webworks)		07:28	07:58	08:28	08:58	09:28	09:58	10:28	11:00	11:30	12:00	12:30	13:00	13:30
Merchants Quay (Dunnes Stores A)		07:35	08:05	08:35	09:05	09:35	10:05	10:35	11:07	11:37	12:07	12:37	13:06	13:37
Mulgrave Rd		07:38	08:08	08:38	09:08	09:38	10:08	10:38	11:10	11:40	12:10	12:40	13:09	13:40
Upper John Street (Maldron Hotel)		07:38	08:08	08:38	09:08	09:38	10:08	10:38	11:10	11:40	12:10	12:40	13:09	13:40
Cathedral Road (Wolfe Tone St Lwr)		07:40	08:10	08:40	09:10	09:40	10:10	10:40	11:12	11:42	12:12	12:42	13:11	13:42
Cathedral Road (St Vincents St)		07:40	08:10	08:40	09:10	09:40	10:10	10:40	11:13	11:43	12:13	12:43	13:12	13:43
Cathedral Road (St Brigids Rd)		07:41	08:11	08:41	09:11	09:41	10:11	10:41	11:14	11:44	12:14	12:44	13:13	13:44
Cathedral Road (O Hanlons Pharmacy)		07:41	08:11	08:41	09:11	09:41	10:11	10:41	11:14	11:44	12:14	12:44	13:13	13:44
Cathedral Road (Mt Eden Opp Church)		07:42	08:12	08:42	09:12	09:42	10:12	10:42	11:15	11:45	12:15	12:45	13:14	13:45
Bakers Rd (Opp Garda Stn)		07:42	08:12	08:42	09:12	09:42	10:12	10:42	11:15	11:45	12:15	12:45	13:14	13:45
Bakers Rd (St Marys Hospital)		07:43	08:13	08:43	09:13	09:43	10:13	10:43	11:16	11:46	12:16	12:46	13:15	13:46
Harbour View Road (Bakers Rd Junction)		07:43	08:13	08:43	09:13	09:43	10:13	10:43	11:16	11:46	12:16	12:46	13:15	13:46
Knocknaheeney Avenue		07:44	08:14	08:44	09:14	09:44	10:14	10:44	11:17	11:47	12:17	12:47	13:16	13:47
Kilmore Road (Lower)		07:44	08:14	08:44	09:14	09:44	10:14	10:44	11:17	11:47	12:17	12:47	13:16	13:47
Kilmore Rd (Kilmore Heights)		07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:18	11:48	12:18	12:48	13:17	13:48
Kilmore Road (Courtown Drive Jctn)		07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:18	11:48	12:18	12:48	13:17	13:48
Courtown Drive (Courtown Park)		07:46	08:16	08:46	09:16	09:46	10:16	10:46	11:19	11:49	12:19	12:49	13:18	13:49
Courtown Drive (Opp Scoil Mhuire)		07:46	08:16	08:46	09:16	09:46	10:16	10:46	11:19	11:49	12:19	12:49	13:18	13:49
Harbour View Road (TMS Com College)		07:47	08:17	08:47	09:17	09:47	10:17	10:47	11:20	11:50	12:20	12:50	13:19	13:50
Hollyhill (Hillcrest Estate)		07:47	08:17	08:47	09:17	09:47	10:17	10:47	11:20	11:50	12:20	12:50	13:19	13:50
Hollyhill (Hollywood Estate)		07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:21	11:51	12:21	12:51	13:20	13:51
Hollyhill (National Learning Net)		07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:21	11:51	12:21	12:51	13:20	13:51
Hollyhill (Apple)	arr	07:50	08:20	08:50	09:20	09:50	10:20	10:50	11:23	11:53	12:23	12:53	13:22	13:53

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Saturday				
Mahon Point (Omniplex)	dep	21:15	21:45	22:15	22:45	23:15
Ringmahon Road (Riverbank)		21:16	21:46	22:16	22:46	23:16
Skehard Road (Ballinure Ave Junc)		21:17	21:47	22:17	22:47	23:17
Skehard Road (Ballinure Place)		21:18	21:48	22:18	22:48	23:18
Skehard Road (Service Station)		21:19	21:49	22:19	22:49	23:19
Church Road (Northbound)		21:21	21:50	22:20	22:50	23:20
Beaumont Drive (Marian Pk Grotto)		21:22	21:51	22:21	22:51	23:21
Beaumont Drive (Upper)		21:22	21:51	22:21	22:51	23:21
Beaumont Drive (Spar Shop)		21:23	21:52	22:22	22:52	23:22
Beaumont Drive (The Crescent Jctn)		21:23	21:52	22:22	22:52	23:22
Blackrock Road (AIB)		21:24	21:53	22:23	22:53	23:23
Blackrock Road (Ashcroft)		21:24	21:53	22:23	22:53	23:23
Blackrock Road (Janeville)		21:25	21:54	22:24	22:54	23:24
Blackrock Road (Crab Lane Jctn)		21:25	21:54	22:24	22:54	23:24
Blackrock Road (Richmond Est)		21:26	21:55	22:25	22:55	23:25
Blackrock Road (Aston Estate)		21:26	21:55	22:25	22:55	23:25
Victoria Road (Opp Marina Park)		21:27	21:56	22:26	22:56	23:26
Victoria Road (Opp Kennedy Park)		21:27	21:56	22:26	22:56	23:26
Marina Terrace (Geraldine Place)		21:28	21:57	22:27	22:57	23:27
Eglinton Street (Opp Webworks)		21:29	21:58	22:28	22:58	23:28
Merchants Quay (Dunnes Stores A)		21:35	22:04	22:34	23:04	23:34
Mulgrave Rd		21:38	22:07	22:37	23:07	23:37
Upper John Street (Maldron Hotel)		21:39	22:08	22:38	23:08	23:38
Cathedral Road (Wolfe Tone St Lwr)		21:40	22:09	22:39	23:09	23:39
Cathedral Road (St Vincents St)		21:41	22:10	22:40	23:10	23:40
Cathedral Road (St Brigids Rd)		21:42	22:11	22:41	23:11	23:41
Cathedral Road (O Hanlons Pharmacy)		21:42	22:11	22:41	23:11	23:41
Cathedral Road (Mt Eden Opp Church)		21:43	22:12	22:42	23:12	23:42
Bakers Rd (Opp Garda Stn)		21:43	22:12	22:42	23:12	23:42
Bakers Rd (St Marys Hospital)		21:44	22:13	22:43	23:13	23:43
Harbour View Road (Bakers Rd Junction)		21:44	22:13	22:43	23:13	23:43
Knocknaheeney Avenue		21:45	22:14	22:44	23:14	23:44
Kilmore Road (Lower)		21:45	22:14	22:44	23:14	23:44
Kilmore Rd (Kilmore Heights)		21:46	22:15	22:45	23:15	23:45
Kilmore Road (Courtown Drive Jctn)		21:46	22:15	22:45	23:15	23:45
Courtown Drive (Courtown Park)		21:47	22:16	22:46	23:16	23:46
Courtown Drive (Opp Scoil Mhuire)		21:47	22:16	22:46	23:16	23:46
Harbour View Road (TMS Com College)		21:48	22:17	22:47	23:17	23:47
Hollyhill (Hillcrest Estate)		21:48	22:17	22:47	23:17	23:47
Hollyhill (Hollywood Estate)		21:49	22:18	22:48	23:18	23:48
Hollyhill (National Learning Net)		21:50	22:18	22:48	23:18	23:48
Hollyhill (Apple)	arr	21:51	22:20	22:50	23:20	23:50

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Sunday						
Mahon Point (Omniplex)	dep	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Ringmahon Road (Riverbank)		20:16	20:46	21:16	21:46	22:16	22:46	23:16
Skehard Road (Ballinure Ave Junc)		20:17	20:47	21:17	21:47	22:17	22:47	23:17
Skehard Road (Ballinure Place)		20:18	20:48	21:18	21:48	22:18	22:48	23:18
Skehard Road (Service Station)		20:19	20:49	21:19	21:49	22:19	22:49	23:19
Church Road (Northbound)		20:20	20:50	21:20	21:50	22:20	22:50	23:20
Beaumont Drive (Marian Pk Grotto)		20:21	20:51	21:21	21:51	22:21	22:51	23:21
Beaumont Drive (Upper)		20:21	20:51	21:21	21:51	22:21	22:51	23:21
Beaumont Drive (Spar Shop)		20:22	20:52	21:22	21:52	22:22	22:52	23:22
Beaumont Drive (The Crescent Jctn)		20:22	20:52	21:22	21:52	22:22	22:52	23:22
Blackrock Road (AIB)		20:23	20:53	21:23	21:53	22:23	22:53	23:23
Blackrock Road (Ashcroft)		20:23	20:53	21:23	21:53	22:23	22:53	23:23
Blackrock Road (Janeville)		20:24	20:54	21:24	21:54	22:24	22:54	23:24
Blackrock Road (Crab Lane Jctn)		20:24	20:54	21:24	21:54	22:24	22:54	23:24
Blackrock Road (Richmond Est)		20:25	20:55	21:25	21:55	22:25	22:55	23:25
Blackrock Road (Aston Estate)		20:25	20:55	21:25	21:55	22:25	22:55	23:25
Victoria Road (Opp Marina Park)		20:26	20:56	21:26	21:56	22:26	22:56	23:26
Victoria Road (Opp Kennedy Park)		20:26	20:56	21:26	21:56	22:26	22:56	23:26
Marina Terrace (Geraldine Place)		20:27	20:57	21:27	21:57	22:27	22:57	23:27
Eglinton Street (Opp Webworks)		20:28	20:58	21:28	21:58	22:28	22:58	23:28
Merchants Quay (Dunnes Stores A)		20:34	21:04	21:34	22:04	22:34	23:04	23:34
Mulgrave Rd		20:37	21:07	21:37	22:07	22:37	23:07	23:37
Upper John Street (Maldron Hotel)		20:38	21:08	21:38	22:08	22:38	23:08	23:38
Cathedral Road (Wolfe Tone St Lwr)		20:39	21:09	21:39	22:09	22:39	23:09	23:39
Cathedral Road (St Vincents St)		20:40	21:10	21:40	22:10	22:40	23:10	23:40
Cathedral Road (St Brigids Rd)		20:41	21:11	21:41	22:11	22:41	23:11	23:41
Cathedral Road (O Hanlons Pharmacy)		20:41	21:11	21:41	22:11	22:41	23:11	23:41
Cathedral Road (Mt Eden Opp Church)		20:42	21:12	21:42	22:12	22:42	23:12	23:42
Bakers Rd (Opp Garda Stn)		20:42	21:12	21:42	22:12	22:42	23:12	23:42
Bakers Rd (St Marys Hospital)		20:43	21:13	21:43	22:13	22:43	23:13	23:43
Harbour View Road (Bakers Rd Junction)		20:43	21:13	21:43	22:13	22:43	23:13	23:43
Knocknaheeney Avenue		20:44	21:14	21:44	22:14	22:44	23:14	23:44
Kilmore Road (Lower)		20:44	21:14	21:44	22:14	22:44	23:14	23:44
Kilmore Rd (Kilmore Heights)		20:45	21:15	21:45	22:15	22:45	23:15	23:45
Kilmore Road (Courtown Drive Jctn)		20:45	21:15	21:45	22:15	22:45	23:15	23:45
Courtown Drive (Courtown Park)		20:46	21:16	21:46	22:16	22:46	23:16	23:46
Courtown Drive (Opp Scoil Mhuire)		20:46	21:16	21:46	22:16	22:46	23:16	23:46
Harbour View Road (TMS Com College)		20:47	21:17	21:47	22:17	22:47	23:17	23:47
Hollyhill (Hillcrest Estate)		20:47	21:17	21:47	22:17	22:47	23:17	23:47
Hollyhill (Hollywood Estate)		20:48	21:18	21:48	22:18	22:48	23:18	23:48
Hollyhill (National Learning Net)		20:48	21:18	21:48	22:18	22:48	23:18	23:48
Hollyhill (Apple)	arr	20:50	21:20	21:50	22:20	22:50	23:20	23:50

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Mahon Point to Hollyhill via Merchants Quay

Operating day		Sunday												
Mahon Point (Omniplex)	dep	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:45	19:15	19:45
Ringmahon Road (Riverbank)		13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:16	17:46	18:16	18:46	19:16	19:46
Skehard Road (Ballinure Ave Junc)		13:47	14:17	14:47	15:17	15:47	16:17	16:47	17:17	17:47	18:17	18:47	19:17	19:47
Skehard Road (Ballinure Place)		13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:48	18:18	18:48	19:18	19:48
Skehard Road (Service Station)		13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:19	18:49	19:19	19:49
Church Road (Northbound)		13:51	14:21	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22	18:52	19:20	19:50
Beaumont Drive (Marian Pk Grotto)		13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22	18:52	19:21	19:51
Beaumont Drive (Upper)		13:52	14:22	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:23	18:53	19:21	19:51
Beaumont Drive (Spar Shop)		13:53	14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:23	18:53	19:22	19:52
Beaumont Drive (The Crescent Jctn)		13:53	14:23	14:54	15:24	15:54	16:24	16:54	17:24	17:54	18:24	18:54	19:22	19:52
Blackrock Road (AIB)		13:54	14:24	14:54	15:24	15:54	16:24	16:54	17:24	17:54	18:24	18:54	19:23	19:53
Blackrock Road (Ashcroft)		13:54	14:24	14:55	15:25	15:55	16:25	16:55	17:25	17:55	18:25	18:55	19:23	19:53
Blackrock Road (Janeville)		13:55	14:25	14:55	15:25	15:55	16:25	16:55	17:25	17:55	18:25	18:55	19:24	19:54
Blackrock Road (Crab Lane Jctn)		13:55	14:25	14:56	15:26	15:56	16:26	16:56	17:26	17:56	18:26	18:56	19:24	19:54
Blackrock Road (Richmond Est)		13:56	14:26	14:56	15:26	15:56	16:26	16:56	17:26	17:56	18:26	18:56	19:25	19:55
Blackrock Road (Aston Estate)		13:56	14:26	14:57	15:27	15:57	16:27	16:57	17:27	17:57	18:27	18:57	19:25	19:55
Victoria Road (Opp Marina Park)		13:57	14:27	14:57	15:27	15:57	16:27	16:57	17:27	17:57	18:27	18:57	19:26	19:56
Victoria Road (Opp Kennedy Park)		13:57	14:27	14:58	15:28	15:58	16:28	16:58	17:28	17:58	18:28	18:58	19:26	19:56
Marina Terrace (Geraldine Place)		13:58	14:28	14:58	15:28	15:58	16:28	16:58	17:28	17:58	18:28	18:58	19:27	19:57
Eglinton Street (Opp Webworks)		14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:28	19:58
Merchants Quay (Dunnes Stores A)		14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:06	18:37	19:07	19:35	20:04
Mulgrave Rd		14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:09	18:40	19:10	19:38	20:07
Upper John Street (Maldron Hotel)		14:10	14:40	15:11	15:41	16:11	16:41	17:11	17:41	18:10	18:41	19:11	19:38	20:08
Cathedral Road (Wolfe Tone St Lwr)		14:12	14:42	15:12	15:42	16:12	16:42	17:12	17:42	18:11	18:42	19:12	19:40	20:09
Cathedral Road (St Vincents St)		14:13	14:43	15:14	15:44	16:14	16:44	17:14	17:44	18:13	18:44	19:14	19:41	20:10
Cathedral Road (St Brigids Rd)		14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:13	18:44	19:14	19:41	20:11
Cathedral Road (O Hanlons Pharmacy)		14:14	14:44	15:15	15:45	16:15	16:45	17:15	17:45	18:14	18:45	19:15	19:42	20:11
Cathedral Road (Mt Eden Opp Church)		14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:14	18:45	19:15	19:42	20:12
Bakers Rd (Opp Garda Stn)		14:15	14:45	15:16	15:46	16:16	16:46	17:16	17:46	18:15	18:46	19:16	19:43	20:12
Bakers Rd (St Marys Hospital)		14:16	14:46	15:16	15:46	16:16	16:46	17:16	17:46	18:15	18:46	19:16	19:43	20:13
Harbour View Road (Bakers Rd Junction)		14:16	14:46	15:17	15:47	16:17	16:47	17:17	17:47	18:16	18:47	19:17	19:44	20:13
Knocknaheeney Avenue		14:17	14:47	15:17	15:47	16:17	16:47	17:17	17:47	18:16	18:47	19:17	19:44	20:14
Kilmore Road (Lower)		14:17	14:47	15:18	15:48	16:18	16:48	17:18	17:48	18:17	18:48	19:18	19:45	20:14
Kilmore Rd (Kilmore Heights)		14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:48	18:17	18:48	19:18	19:45	20:15
Kilmore Road (Courtown Drive Jctn)		14:18	14:48	15:19	15:49	16:19	16:49	17:19	17:49	18:18	18:49	19:19	19:46	20:15
Courtown Drive (Courtown Park)		14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:18	18:49	19:19	19:46	20:16
Courtown Drive (Opp Scoil Mhuire)		14:19	14:49	15:20	15:50	16:20	16:50	17:20	17:50	18:19	18:50	19:20	19:47	20:16
Harbour View Road (TMS Com College)		14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:19	18:50	19:20	19:47	20:17
Hollyhill (Hillcrest Estate)		14:20	14:50	15:21	15:51	16:21	16:51	17:21	17:51	18:20	18:51	19:21	19:48	20:17
Hollyhill (Hollywood Estate)		14:21	14:51	15:21	15:51	16:21	16:51	17:21	17:51	18:20	18:51	19:21	19:48	20:18
Hollyhill (National Learning Net)		14:21	14:51	15:22	15:52	16:22	16:52	17:22	17:52	18:21	18:52	19:22	19:49	20:18
Hollyhill (Apple)	arr	14:23	14:53	15:24	15:54	16:24	16:54	17:24	17:54	18:23	18:54	19:24	19:50	20:20

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday												
Hollyhill (Apple)	dep	10:20	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20
Harbour View Road (Hollyhill Ind Estate)		10:20	10:40	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20
Hollyhill (Opp Hollywood Estate)		10:21	10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21
Hollyhill (Opp Hillcrest Estate)		10:21	10:41	11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21
Courtown Drive(Scoil Mhuire)		10:23	10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23
Courtown Drive (Coolmaine)		10:23	10:43	11:03	11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23
Kilmore Road (Opp Courtown Drive)		10:24	10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24
Kilmore Road (Meadow Ave)		10:24	10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24
Kilmore Road (Dunmore Gardens)		10:25	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25
Knocknaheeney Avenue		10:25	10:45	11:05	11:25	11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25
Cronins Field (Opp Amenity Park)		10:27	10:47	11:07	11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27
Churchfield Hill (Upper)		10:28	10:48	11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28
Churchfield Hill (Lower)		10:28	10:48	11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28
Churchfield Hill (Knockfree Stores)		10:29	10:49	11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29
Gurranabraher Rd (Templeacre Jctn)		10:29	10:49	11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29
Cathedral Road (Gurranabraher Rd Jctn)		10:30	10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30
Cathedral Road (St Marys Place)		10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31
Cathedral Road (School Ave)		10:31	10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31
Cathedral Road (Wolfe Tone Uppr Jctn)		10:32	10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32
Roman Street		10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34
Upper John Street		10:34	10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:15	14:35
Mulgrave Rd		10:35	10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:16	14:36
Merchants Quay Eastbound		10:44	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:25	14:45
Victoria Rd (Opposite Neptune House)		10:48	11:08	11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:29	14:49
Victoria Rd (Kennedy Park)		10:49	11:09	11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:30	14:50
Blackrock Road (Opp Ashton Schl)		10:50	11:10	11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:31	14:51
Blackrock Road (Ashton Park)		10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51
Blackrock Road (Opp Richmond Est)		10:51	11:11	11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:32	14:52
Blackrock Road (Chiplee)		10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52
Blackrock Road (Ballintemple Pharm)		10:52	11:12	11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:33	14:53
Blackrock Road (Opp Temple Inn)		10:53	11:13	11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:34	14:54
Beaumont Drive (Beaumont Crescent)		10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54
Beaumont Drive (Opposite Spar)		10:54	11:14	11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:35	14:55
Beaumont Drive (Opp Beaumont Lawn)		10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35	14:55
Beaumont Drive (Marian Park Opp Grotto)		10:55	11:15	11:35	11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:36	14:56
Skehard Road (Clontarf Estate)		10:58	11:18	11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58
Skehard Road (Opp Service Station)		10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59
Skehard Road (Opp CSO Office)		10:59	11:19	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:40	15:00
Skehard Road (Nagle Comm Coll)		11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:41	15:01
Skehard Road (Rockwood Est)		11:01	11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:42	15:02
Ringmahon Road (Opp Cemetery)		11:02	11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:43	15:03
Mahon Point (Omniplex)	arr	11:04	11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:45	15:05

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday												
Hollyhill (Apple)	dep		06:40	07:00	07:20	07:40	08:00	08:20	08:40	09:00	09:20	09:40	10:00	
Harbour View Road (Hollyhill Ind Estate)			06:40	07:00	07:20	07:40	08:00	08:20	08:40	09:00	09:20	09:40	10:00	
Hollyhill (Opp Hollywood Estate)			06:41	07:01	07:21	07:41	08:01	08:21	08:41	09:01	09:21	09:41	10:01	
Hollyhill (Opp Hillcrest Estate)			06:41	07:01	07:21	07:42	08:02	08:22	08:42	09:01	09:21	09:41	10:01	
Courtown Drive(Scoil Mhuire)			06:43	07:03	07:23	07:43	08:03	08:23	08:43	09:03	09:23	09:43	10:03	
Courtown Drive (Coolmaine)			06:43	07:03	07:23	07:44	08:04	08:24	08:44	09:03	09:23	09:43	10:03	
Kilmore Road (Opp Courtown Drive)			06:44	07:04	07:24	07:44	08:04	08:24	08:44	09:04	09:24	09:44	10:04	
Kilmore Road (Meadow Ave)			06:44	07:04	07:24	07:45	08:05	08:25	08:45	09:04	09:24	09:44	10:04	
Kilmore Road (Dunmore Gardens)			06:45	07:05	07:25	07:45	08:05	08:25	08:45	09:05	09:25	09:45	10:05	
Knocknaheeney Avenue			06:45	07:05	07:25	07:46	08:06	08:26	08:46	09:05	09:25	09:45	10:05	
Cronins Field (Opp Amenity Park)			06:47	07:07	07:27	07:48	08:08	08:28	08:48	09:07	09:27	09:47	10:07	
Churchfield Hill (Upper)			06:48	07:08	07:28	07:49	08:09	08:29	08:49	09:08	09:28	09:48	10:08	
Churchfield Hill (Lower)			06:48	07:08	07:28	07:49	08:09	08:29	08:49	09:08	09:28	09:48	10:08	
Churchfield Hill (Knockfree Stores)			06:49	07:09	07:29	07:50	08:10	08:30	08:50	09:09	09:29	09:49	10:09	
Gurranabraher Rd (Templeacre Jctn)			06:49	07:09	07:29	07:50	08:10	08:30	08:50	09:09	09:29	09:49	10:09	
Cathedral Road (Gurranabraher Rd Jctn)			06:51	07:11	07:31	07:52	08:12	08:32	08:52	09:10	09:30	09:50	10:10	
Cathedral Road (St Marys Place)			06:51	07:11	07:31	07:52	08:12	08:32	08:52	09:11	09:31	09:51	10:11	
Cathedral Road (School Ave)			06:52	07:12	07:32	07:53	08:13	08:33	08:53	09:11	09:31	09:51	10:11	
Cathedral Road (Wolfe Tone Uppr Jctn)			06:53	07:13	07:33	07:54	08:14	08:34	08:54	09:12	09:32	09:52	10:12	
Roman Street			06:54	07:14	07:34	07:56	08:16	08:36	08:56	09:14	09:34	09:54	10:14	
Upper John Street			06:55	07:15	07:35	07:57	08:17	08:37	08:57	09:14	09:34	09:54	10:14	
Mulgrave Rd			06:56	07:16	07:36	07:58	08:18	08:38	08:58	09:15	09:35	09:55	10:15	
Merchants Quay Eastbound		06:25	06:45	07:05	07:25	07:45	08:07	08:27	08:47	09:07	09:24	09:44	10:04	10:24
Victoria Rd (Opposite Neptune House)		06:29	06:49	07:09	07:29	07:49	08:11	08:31	08:51	09:11	09:28	09:48	10:08	10:28
Victoria Rd (Kennedy Park)		06:30	06:50	07:10	07:30	07:50	08:12	08:32	08:52	09:12	09:29	09:49	10:09	10:29
Blackrock Road (Opp Ashton Schl)		06:30	06:50	07:11	07:31	07:51	08:13	08:33	08:53	09:13	09:30	09:50	10:10	10:30
Blackrock Road (Ashton Park)		06:31	06:51	07:11	07:31	07:51	08:13	08:33	08:53	09:13	09:31	09:51	10:11	10:31
Blackrock Road (Opp Richmond Est)		06:31	06:51	07:12	07:32	07:52	08:14	08:34	08:54	09:14	09:31	09:51	10:11	10:31
Blackrock Road (Chiplee)		06:32	06:52	07:12	07:32	07:52	08:14	08:34	08:54	09:14	09:32	09:52	10:12	10:32
Blackrock Road (Ballintemple Pharm)		06:32	06:52	07:13	07:33	07:53	08:15	08:35	08:55	09:15	09:32	09:52	10:12	10:32
Blackrock Road (Opp Temple Inn)		06:33	06:53	07:13	07:33	07:53	08:16	08:36	08:56	09:16	09:33	09:53	10:13	10:33
Beaumont Drive (Beaumont Crescent)		06:33	06:53	07:14	07:34	07:54	08:16	08:36	08:56	09:16	09:34	09:54	10:14	10:34
Beaumont Drive (Opposite Spar)		06:34	06:54	07:14	07:34	07:54	08:17	08:37	08:57	09:17	09:34	09:54	10:14	10:34
Beaumont Drive (Opp Beaumont Lawn)		06:34	06:54	07:15	07:35	07:55	08:17	08:37	08:57	09:17	09:35	09:55	10:15	10:35
Beaumont Drive (Marian Park Opp Grotto)		06:35	06:55	07:15	07:35	07:55	08:18	08:38	08:58	09:18	09:35	09:55	10:15	10:35
Skehard Road (Clontarf Estate)		06:37	06:57	07:17	07:37	07:57	08:20	08:40	09:00	09:20	09:38	09:58	10:18	10:38
Skehard Road (Opp Service Station)		06:38	06:58	07:18	07:38	07:58	08:21	08:41	09:01	09:21	09:39	09:59	10:19	10:39
Skehard Road (Opp CSO Office)		06:38	06:58	07:19	07:39	07:59	08:22	08:42	09:02	09:22	09:39	09:59	10:19	10:39
Skehard Road (Nagle Comm Coll)		06:39	06:59	07:20	07:40	08:00	08:23	08:43	09:03	09:23	09:40	10:00	10:20	10:40
Skehard Road (Rockwood Est)		06:40	07:00	07:20	07:40	08:00	08:23	08:43	09:03	09:23	09:41	10:01	10:21	10:41
Ringmahon Road (Opp Cemetery)		06:41	07:01	07:21	07:41	08:01	08:24	08:44	09:04	09:24	09:42	10:02	10:22	10:42
Mahon Point (Omniplex)	arr	06:43	07:03	07:23	07:43	08:03	08:26	08:46	09:06	09:26	09:44	10:04	10:24	10:44

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202 Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday								
Hollyhill (Apple)	dep	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00
Harbour View Road (Hollyhill Ind Estate)		19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00
Hollyhill (Opp Hollywood Estate)		19:01	19:31	20:01	20:31	21:01	21:31	22:01	22:31	23:01
Hollyhill (Opp Hillcrest Estate)		19:01	19:31	20:01	20:31	21:01	21:31	22:01	22:31	23:01
Courtown Drive(Scoil Mhuire)		19:03	19:33	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Courtown Drive (Coolmaine)		19:03	19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Kilmore Road (Opp Courtown Drive)		19:04	19:34	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Kilmore Road (Meadow Ave)		19:04	19:34	20:04	20:34	21:04	21:34	22:04	22:34	23:04
Kilmore Road (Dunmore Gardens)		19:05	19:35	20:04	20:34	21:04	21:34	22:04	22:34	23:04
Knocknaheeney Avenue		19:05	19:35	20:05	20:35	21:05	21:35	22:05	22:35	23:05
Cronins Field (Opp Amenity Park)		19:07	19:37	20:06	20:36	21:06	21:36	22:06	22:36	23:06
Churchfield Hill (Upper)		19:07	19:37	20:07	20:37	21:07	21:37	22:07	22:37	23:07
Churchfield Hill (Lower)		19:08	19:38	20:07	20:37	21:07	21:37	22:07	22:37	23:07
Churchfield Hill (Knockfree Stores)		19:08	19:38	20:08	20:38	21:08	21:38	22:08	22:38	23:08
Gurranabraher Rd (Templeacre Jctn)		19:09	19:39	20:08	20:38	21:08	21:38	22:08	22:38	23:08
Cathedral Road (Gurranabraher Rd Jctn)		19:10	19:40	20:09	20:39	21:09	21:39	22:09	22:39	23:09
Cathedral Road (St Marys Place)		19:10	19:40	20:09	20:39	21:09	21:39	22:09	22:39	23:09
Cathedral Road (School Ave)		19:11	19:41	20:10	20:40	21:10	21:40	22:10	22:40	23:10
Cathedral Road (Wolfe Tone Uppr Jctn)		19:12	19:42	20:10	20:40	21:10	21:40	22:10	22:40	23:10
Roman Street		19:13	19:43	20:11	20:41	21:11	21:41	22:11	22:41	23:11
Upper John Street		19:14	19:44	20:12	20:42	21:12	21:42	22:12	22:42	23:12
Mulgrave Rd		19:15	19:45	20:13	20:43	21:13	21:43	22:13	22:43	23:13
Merchants Quay Eastbound		19:24	19:54	20:22	20:52	21:22	21:52	22:22	22:52	23:22
Victoria Rd (Opposite Neptune House)		19:28	19:58	20:26	20:56	21:26	21:56	22:26	22:56	23:26
Victoria Rd (Kennedy Park)		19:29	19:59	20:27	20:57	21:27	21:57	22:27	22:57	23:27
Blackrock Road (Opp Ashton Schl)		19:30	20:00	20:27	20:57	21:27	21:57	22:27	22:57	23:27
Blackrock Road (Ashton Park)		19:30	20:00	20:28	20:58	21:28	21:58	22:28	22:58	23:28
Blackrock Road (Opp Richmond Est)		19:31	20:01	20:28	20:58	21:28	21:58	22:28	22:58	23:28
Blackrock Road (Chiplee)		19:31	20:01	20:29	20:59	21:29	21:59	22:29	22:59	23:29
Blackrock Road (Ballintemple Pharm)		19:32	20:02	20:29	20:59	21:29	21:59	22:29	22:59	23:29
Blackrock Road (Opp Temple Inn)		19:33	20:03	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Beaumont Drive (Beaumont Crescent)		19:33	20:03	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Beaumont Drive (Opposite Spar)		19:34	20:04	20:31	21:01	21:31	22:01	22:31	23:01	23:31
Beaumont Drive (Opp Beaumont Lawn)		19:34	20:04	20:31	21:01	21:31	22:01	22:31	23:01	23:31
Beaumont Drive (Marian Park Opp Grotto)		19:35	20:05	20:32	21:02	21:32	22:02	22:32	23:02	23:32
Skehard Road (Clontarf Estate)		19:37	20:07	20:33	21:03	21:33	22:03	22:33	23:03	23:33
Skehard Road (Opp Service Station)		19:37	20:07	20:34	21:04	21:34	22:04	22:34	23:04	23:34
Skehard Road (Opp CSO Office)		19:38	20:08	20:34	21:04	21:34	22:04	22:34	23:04	23:34
Skehard Road (Nagle Comm Coll)		19:39	20:09	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Skehard Road (Rockwood Est)		19:39	20:09	20:36	21:06	21:36	22:06	22:36	23:06	23:36
Ringmahon Road (Opp Cemetery)		19:41	20:11	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Mahon Point (Omniplex)	arr	19:43	20:13	20:39	21:09	21:39	22:09	22:39	23:09	23:39

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202 Hollyhill to Mahon Point via Merchants Quay

Operating day		Monday - Friday												
Hollyhill (Apple)	dep	14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40
Harbour View Road (Hollyhill Ind Estate)		14:40	15:00	15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40
Hollyhill (Opp Hollywood Estate)		14:41	15:01	15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41
Hollyhill (Opp Hillcrest Estate)		14:41	15:01	15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41
Courtown Drive(Scoil Mhuire)		14:43	15:03	15:23	15:43	16:03	16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43
Courtown Drive (Coolmaine)		14:43	15:03	15:23	15:43	16:03	16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43
Kilmore Road (Opp Courtown Drive)		14:44	15:04	15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:44
Kilmore Road (Meadow Ave)		14:44	15:04	15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:44
Kilmore Road (Dunmore Gardens)		14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05	17:25	17:45	18:05	18:25	18:45
Knocknaheeney Avenue		14:45	15:05	15:25	15:45	16:05	16:25	16:45	17:05	17:25	17:45	18:05	18:25	18:45
Cronins Field (Opp Amenity Park)		14:47	15:07	15:27	15:47	16:07	16:27	16:47	17:07	17:27	17:47	18:07	18:27	18:47
Churchfield Hill (Upper)		14:48	15:08	15:28	15:48	16:08	16:28	16:48	17:08	17:28	17:48	18:07	18:27	18:47
Churchfield Hill (Lower)		14:48	15:08	15:28	15:48	16:08	16:28	16:48	17:08	17:28	17:48	18:08	18:28	18:48
Churchfield Hill (Knockfree Stores)		14:49	15:09	15:29	15:49	16:09	16:29	16:49	17:09	17:29	17:49	18:08	18:28	18:48
Gurranabraher Rd (Templeacre Jctn)		14:49	15:09	15:29	15:49	16:09	16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:49
Cathedral Road (Gurranabraher Rd Jctn)		14:50	15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50
Cathedral Road (St Marys Place)		14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51	18:10	18:30	18:50
Cathedral Road (School Ave)		14:51	15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51
Cathedral Road (Wolfe Tone Uppr Jctn)		14:53	15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53	18:12	18:32	18:52
Roman Street		14:55	15:15	15:35	15:55	16:15	16:35	16:55	17:15	17:35	17:55	18:13	18:33	18:53
Upper John Street		14:56	15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:56	18:14	18:34	18:54
Mulgrave Rd		14:57	15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37	17:57	18:15	18:35	18:55
Merchants Quay Eastbound		15:06	15:26	15:46	16:06	16:26	16:46	17:06	17:26	17:46	18:06	18:27	18:44	19:04
Victoria Rd (Opposite Neptune House)		15:10	15:30	15:50	16:10	16:30	16:50	17:10	17:30	17:50	18:10	18:31	18:48	19:08
Victoria Rd (Kennedy Park)		15:11	15:31	15:51	16:11	16:31	16:51	17:11	17:31	17:51	18:11	18:32	18:49	19:09
Blackrock Road (Opp Ashton Schl)		15:12	15:32	15:52	16:12	16:32	16:52	17:12	17:32	17:52	18:12	18:33	18:50	19:10
Blackrock Road (Ashton Park)		15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:33	18:50	19:10
Blackrock Road (Opp Richmond Est)		15:13	15:33	15:53	16:13	16:33	16:53	17:13	17:33	17:53	18:13	18:34	18:51	19:11
Blackrock Road (Chiplee)		15:14	15:34	15:54	16:14	16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:51	19:11
Blackrock Road (Ballintemple Pharm)		15:14	15:34	15:54	16:14	16:34	16:54	17:14	17:34	17:54	18:14	18:35	18:52	19:12
Blackrock Road (Opp Temple Inn)		15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:56	18:16	18:36	18:53	19:13
Beaumont Drive (Beaumont Crescent)		15:16	15:36	15:56	16:16	16:36	16:56	17:16	17:36	17:56	18:16	18:36	18:53	19:13
Beaumont Drive (Opposite Spar)		15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37	17:57	18:17	18:37	18:54	19:14
Beaumont Drive (Opp Beaumont Lawn)		15:17	15:37	15:57	16:17	16:37	16:57	17:17	17:37	17:57	18:17	18:37	18:54	19:14
Beaumont Drive (Marian Park Opp Grotto)		15:18	15:38	15:58	16:18	16:38	16:58	17:18	17:38	17:58	18:18	18:38	18:55	19:15
Skehard Road (Clontarf Estate)		15:20	15:40	16:00	16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40	18:57	19:17
Skehard Road (Opp Service Station)		15:21	15:41	16:01	16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:40	18:57	19:17
Skehard Road (Opp CSO Office)		15:22	15:42	16:02	16:22	16:42	17:02	17:22	17:42	18:02	18:22	18:41	18:58	19:18
Skehard Road (Nagle Comm Coll)		15:23	15:43	16:03	16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:42	18:59	19:19
Skehard Road (Rockwood Est)		15:24	15:44	16:04	16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:42	18:59	19:19
Ringmahon Road (Opp Cemetery)		15:25	15:45	16:05	16:25	16:45	17:05	17:25	17:45	18:05	18:25	18:44	19:01	19:21
Mahon Point (Omniplex)	arr	15:27	15:47	16:07	16:27	16:47	17:07	17:27	17:47	18:07	18:27	18:46	19:03	19:23

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202

Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday												
Hollyhill (Apple)	dep	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00
Harbour View Road (Hollyhill Ind Estate)		12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00
Hollyhill (Opp Hollywood Estate)		12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01
Hollyhill (Opp Hillcrest Estate)		12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01
Courtown Drive(Scoil Mhuire)		12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03
Courtown Drive (Coolmaine)		12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03
Kilmore Road (Opp Courtown Drive)		12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04
Kilmore Road (Meadow Ave)		12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04
Kilmore Road (Dunmore Gardens)		12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05
Knocknaheeney Avenue		12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05
Cronins Field (Opp Amenity Park)		12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47	15:07	15:27	15:47	16:07
Churchfield Hill (Upper)		12:07	12:27	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08
Churchfield Hill (Lower)		12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08
Churchfield Hill (Knockfree Stores)		12:08	12:28	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:09
Gurranabraher Rd (Templeacre Jctn)		12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:09
Cathedral Road (Gurranabraher Rd Jctn)		12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10
Cathedral Road (St Marys Place)		12:10	12:30	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11
Cathedral Road (School Ave)		12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11
Cathedral Road (Wolfe Tone Uppr Jctn)		12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52	16:12
Roman Street		12:13	12:33	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14
Upper John Street		12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14
Mulgrave Rd		12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35	14:55	15:15	15:35	15:55	16:15
Merchants Quay Eastbound		12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22
Victoria Rd (Opposite Neptune House)		12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26
Victoria Rd (Kennedy Park)		12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47	15:07	15:27	15:47	16:07	16:27
Blackrock Road (Opp Ashton Schl)		12:27	12:47	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08	16:28
Blackrock Road (Ashton Park)		12:28	12:48	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:09	16:29
Blackrock Road (Opp Richmond Est)		12:28	12:48	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30
Blackrock Road (Chiplee)		12:29	12:49	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31
Blackrock Road (Ballintemple Pharm)		12:29	12:49	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31
Blackrock Road (Opp Temple Inn)		12:30	12:50	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52	16:12	16:32
Beaumont Drive (Beaumont Crescent)		12:31	12:51	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13	16:33
Beaumont Drive (Opposite Spar)		12:31	12:51	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13	16:33
Beaumont Drive (Opp Beaumont Lawn)		12:32	12:52	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14	16:34
Beaumont Drive (Marian Park Opp Grotto)		12:32	12:52	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14	16:34
Skehard Road (Clontarf Estate)		12:35	12:55	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57	16:17	16:37
Skehard Road (Opp Service Station)		12:35	12:55	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57	16:17	16:37
Skehard Road (Opp CSO Office)		12:36	12:56	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18	16:38
Skehard Road (Nagle Comm Coll)		12:36	12:56	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18	16:38
Skehard Road (Rockwood Est)		12:37	12:57	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:19	16:39
Ringmahon Road (Opp Cemetery)		12:38	12:58	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40
Mahon Point (Omniplex)	arr	12:40	13:00	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22	16:42

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday												
Hollyhill (Apple)	dep	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:20	10:40	11:00	11:20	11:40	
Harbour View Road (Hollyhill Ind Estate)		07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:20	10:40	11:00	11:20	11:40	
Hollyhill (Opp Hollywood Estate)		07:01	07:31	08:01	08:31	09:01	09:31	10:01	10:21	10:41	11:01	11:21	11:41	
Hollyhill (Opp Hillcrest Estate)		07:01	07:31	08:01	08:31	09:01	09:31	10:01	10:21	10:41	11:01	11:21	11:41	
Courtown Drive(Scoil Mhuire)		07:02	07:32	08:02	08:32	09:02	09:33	10:03	10:23	10:43	11:03	11:23	11:43	
Courtown Drive (Coolmaine)		07:03	07:33	08:03	08:33	09:03	09:33	10:03	10:23	10:43	11:03	11:23	11:43	
Kilmore Road (Opp Courtown Drive)		07:03	07:33	08:03	08:33	09:03	09:34	10:04	10:24	10:44	11:04	11:24	11:44	
Kilmore Road (Meadow Ave)		07:04	07:34	08:04	08:34	09:04	09:34	10:04	10:24	10:44	11:04	11:24	11:44	
Kilmore Road (Dunmore Gardens)		07:04	07:34	08:04	08:34	09:04	09:35	10:05	10:25	10:45	11:05	11:25	11:45	
Knocknaheeney Avenue		07:05	07:35	08:05	08:35	09:05	09:35	10:05	10:25	10:45	11:05	11:25	11:45	
Cronins Field (Opp Amenity Park)		07:06	07:36	08:06	08:36	09:06	09:37	10:07	10:27	10:47	11:07	11:27	11:47	
Churchfield Hill (Upper)		07:07	07:37	08:07	08:37	09:07	09:37	10:07	10:27	10:47	11:07	11:27	11:47	
Churchfield Hill (Lower)		07:07	07:37	08:07	08:37	09:07	09:38	10:08	10:28	10:48	11:08	11:28	11:48	
Churchfield Hill (Knockfree Stores)		07:08	07:38	08:08	08:38	09:08	09:38	10:08	10:28	10:48	11:08	11:28	11:48	
Gurranabraher Rd (Templeacre Jctn)		07:08	07:38	08:08	08:38	09:08	09:39	10:09	10:29	10:49	11:09	11:29	11:49	
Cathedral Road (Gurranabraher Rd Jctn)		07:09	07:39	08:09	08:39	09:09	09:40	10:10	10:30	10:50	11:10	11:30	11:50	
Cathedral Road (St Marys Place)		07:09	07:39	08:10	08:40	09:10	09:40	10:10	10:30	10:50	11:10	11:30	11:50	
Cathedral Road (School Ave)		07:10	07:40	08:10	08:40	09:10	09:41	10:11	10:31	10:51	11:11	11:31	11:51	
Cathedral Road (Wolfe Tone Uppr Jctn)		07:10	07:40	08:11	08:41	09:11	09:42	10:12	10:32	10:52	11:12	11:32	11:52	
Roman Street		07:11	07:41	08:12	08:42	09:12	09:43	10:13	10:33	10:53	11:13	11:33	11:53	
Upper John Street		07:11	07:41	08:13	08:43	09:13	09:44	10:14	10:34	10:54	11:14	11:34	11:54	
Mulgrave Rd		07:12	07:42	08:14	08:44	09:14	09:45	10:15	10:35	10:55	11:15	11:35	11:55	
Merchants Quay Eastbound	06:50	07:20	07:50	08:22	08:52	09:20	09:52	10:22	10:42	11:02	11:22	11:42	12:02	
Victoria Rd (Opposite Neptune House)	06:54	07:24	07:54	08:26	08:56	09:24	09:56	10:26	10:46	11:06	11:26	11:46	12:06	
Victoria Rd (Kennedy Park)	06:54	07:25	07:55	08:27	08:57	09:25	09:57	10:27	10:47	11:07	11:27	11:47	12:07	
Blackrock Road (Opp Ashton Schl)	06:55	07:25	07:55	08:27	08:57	09:25	09:58	10:28	10:48	11:08	11:27	11:47	12:07	
Blackrock Road (Ashton Park)	06:55	07:26	07:56	08:28	08:58	09:26	09:58	10:28	10:48	11:08	11:28	11:48	12:08	
Blackrock Road (Opp Richmond Est)	06:56	07:26	07:56	08:28	08:58	09:26	09:59	10:29	10:49	11:09	11:28	11:48	12:08	
Blackrock Road (Chiplee)	06:56	07:27	07:57	08:29	08:59	09:27	09:59	10:29	10:49	11:09	11:29	11:49	12:09	
Blackrock Road (Ballintemple Pharm)	06:57	07:27	07:57	08:29	08:59	09:27	10:00	10:30	10:50	11:10	11:29	11:49	12:09	
Blackrock Road (Opp Temple Inn)	06:57	07:28	07:58	08:30	09:00	09:28	10:01	10:31	10:51	11:11	11:30	11:50	12:10	
Beaumont Drive (Beaumont Crescent)	06:58	07:28	07:58	08:30	09:00	09:28	10:01	10:31	10:51	11:11	11:31	11:51	12:11	
Beaumont Drive (Opposite Spar)	06:58	07:29	07:59	08:31	09:01	09:29	10:02	10:32	10:52	11:12	11:31	11:51	12:11	
Beaumont Drive (Opp Beaumont Lawn)	06:59	07:29	07:59	08:31	09:01	09:29	10:02	10:32	10:52	11:12	11:32	11:52	12:12	
Beaumont Drive (Marian Park Opp Grotto)	06:59	07:30	08:00	08:32	09:02	09:30	10:03	10:33	10:53	11:13	11:32	11:52	12:12	
Skehard Road (Clontarf Estate)	07:01	07:31	08:01	08:34	09:04	09:32	10:05	10:35	10:55	11:15	11:35	11:55	12:15	
Skehard Road (Opp Service Station)	07:01	07:32	08:02	08:34	09:04	09:32	10:06	10:36	10:56	11:16	11:35	11:55	12:15	
Skehard Road (Opp CSO Office)	07:02	07:32	08:02	08:35	09:05	09:33	10:06	10:36	10:56	11:16	11:36	11:56	12:16	
Skehard Road (Nagle Comm Coll)	07:02	07:33	08:03	08:35	09:05	09:33	10:07	10:37	10:57	11:17	11:36	11:56	12:16	
Skehard Road (Rockwood Est)	07:03	07:33	08:03	08:36	09:06	09:34	10:07	10:37	10:57	11:17	11:37	11:57	12:17	
Ringmahon Road (Opp Cemetery)	07:04	07:34	08:04	08:37	09:07	09:35	10:08	10:38	10:58	11:18	11:38	11:58	12:18	
Mahon Point (Omniplex)	arr 07:06	07:36	08:06	08:39	09:09	09:37	10:10	10:40	11:00	11:20	11:40	12:00	12:20	

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday			
Hollyhill (Apple)	dep	21:30	22:00	22:30	23:00
Harbour View Road (Hollyhill Ind Estate)		21:30	22:00	22:30	23:00
Hollyhill (Opp Hollywood Estate)		21:31	22:01	22:31	23:01
Hollyhill (Opp Hillcrest Estate)		21:31	22:01	22:31	23:01
Courtown Drive(Scoil Mhuire)		21:32	22:02	22:32	23:02
Courtown Drive (Coolmaine)		21:33	22:03	22:33	23:03
Kilmore Road (Opp Courtown Drive)		21:33	22:03	22:33	23:03
Kilmore Road (Meadow Ave)		21:34	22:04	22:34	23:04
Kilmore Road (Dunmore Gardens)		21:34	22:04	22:34	23:04
Knocknaheeney Avenue		21:35	22:05	22:35	23:05
Cronins Field (Opp Amenity Park)		21:36	22:06	22:36	23:06
Churchfield Hill (Upper)		21:37	22:07	22:37	23:07
Churchfield Hill (Lower)		21:37	22:07	22:37	23:07
Churchfield Hill (Knockfree Stores)		21:38	22:08	22:38	23:08
Gurranabraher Rd (Templeacre Jctn)		21:38	22:08	22:38	23:08
Cathedral Road (Gurranabraher Rd Jctn)		21:39	22:09	22:39	23:09
Cathedral Road (St Marys Place)		21:39	22:09	22:39	23:09
Cathedral Road (School Ave)		21:40	22:10	22:40	23:10
Cathedral Road (Wolfe Tone Uppr Jctn)		21:40	22:10	22:40	23:10
Roman Street		21:42	22:12	22:42	23:12
Upper John Street		21:42	22:12	22:42	23:12
Mulgrave Rd		21:43	22:13	22:43	23:13
Merchants Quay Eastbound		21:50	22:20	22:50	23:20
Victoria Rd (Opposite Neptune House)		21:53	22:23	22:53	23:23
Victoria Rd (Kennedy Park)		21:54	22:24	22:54	23:24
Blackrock Road (Opp Ashton Schl)		21:54	22:24	22:54	23:24
Blackrock Road (Ashton Park)		21:55	22:25	22:55	23:25
Blackrock Road (Opp Richmond Est)		21:55	22:25	22:55	23:25
Blackrock Road (Chiplee)		21:56	22:26	22:56	23:26
Blackrock Road (Ballintemple Pharm)		21:56	22:26	22:56	23:26
Blackrock Road (Opp Temple Inn)		21:57	22:27	22:57	23:27
Beaumont Drive (Beaumont Crescent)		21:57	22:27	22:57	23:27
Beaumont Drive (Opposite Spar)		21:58	22:28	22:58	23:28
Beaumont Drive (Opp Beaumont Lawn)		21:58	22:28	22:58	23:28
Beaumont Drive (Marian Park Opp Grotto)		21:59	22:29	22:59	23:29
Skehard Road (Clontarf Estate)		22:00	22:30	23:00	23:30
Skehard Road (Opp Service Station)		22:01	22:31	23:01	23:31
Skehard Road (Opp CSO Office)		22:01	22:31	23:01	23:31
Skehard Road (Nagle Comm Coll)		22:02	22:32	23:02	23:32
Skehard Road (Rockwood Est)		22:02	22:32	23:02	23:32
Ringmahon Road (Opp Cemetery)		22:03	22:33	23:03	23:33
Mahon Point (Omniplex)	arr	22:05	22:35	23:05	23:35

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Saturday												
Hollyhill (Apple)	dep	16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:30	20:00	20:30	21:00
Harbour View Road (Hollyhill Ind Estate)		16:20	16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:30	20:00	20:30	21:00
Hollyhill (Opp Hollywood Estate)		16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:31	20:01	20:31	21:01
Hollyhill (Opp Hillcrest Estate)		16:21	16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:31	20:01	20:31	21:01
Courtown Drive(Scoil Mhuire)		16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:33	20:03	20:33	21:02
Courtown Drive (Coolmaine)		16:23	16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:33	20:03	20:33	21:03
Kilmore Road (Opp Courtown Drive)		16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:34	20:04	20:34	21:03
Kilmore Road (Meadow Ave)		16:24	16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:34	20:04	20:34	21:04
Kilmore Road (Dunmore Gardens)		16:25	16:45	17:05	17:25	17:45	18:05	18:25	18:45	19:05	19:35	20:05	20:35	21:04
Knocknaheeney Avenue		16:25	16:45	17:05	17:25	17:45	18:05	18:25	18:45	19:05	19:35	20:05	20:35	21:05
Cronins Field (Opp Amenity Park)		16:27	16:47	17:07	17:27	17:47	18:07	18:27	18:47	19:07	19:37	20:07	20:37	21:06
Churchfield Hill (Upper)		16:28	16:48	17:08	17:28	17:48	18:08	18:28	18:47	19:07	19:37	20:07	20:37	21:07
Churchfield Hill (Lower)		16:28	16:48	17:08	17:28	17:48	18:08	18:28	18:48	19:08	19:38	20:08	20:38	21:07
Churchfield Hill (Knockfree Stores)		16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:48	19:08	19:38	20:08	20:38	21:08
Gurranabraher Rd (Templeacre Jctn)		16:29	16:49	17:09	17:29	17:49	18:09	18:29	18:49	19:09	19:39	20:09	20:39	21:08
Cathedral Road (Gurranabraher Rd Jctn)		16:30	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:10	19:40	20:10	20:40	21:09
Cathedral Road (St Marys Place)		16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:50	19:10	19:40	20:10	20:40	21:09
Cathedral Road (School Ave)		16:31	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:11	19:41	20:11	20:41	21:10
Cathedral Road (Wolfe Tone Uppr Jctn)		16:32	16:52	17:12	17:32	17:52	18:12	18:32	18:52	19:12	19:42	20:12	20:42	21:10
Roman Street		16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:53	19:13	19:43	20:13	20:43	21:12
Upper John Street		16:34	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:14	19:44	20:14	20:44	21:12
Mulgrave Rd		16:35	16:55	17:15	17:35	17:55	18:15	18:35	18:55	19:15	19:45	20:15	20:45	21:13
Merchants Quay Eastbound		16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:22	19:52	20:22	20:52	21:20
Victoria Rd (Opposite Neptune House)		16:46	17:06	17:26	17:46	18:06	18:26	18:46	19:05	19:25	19:55	20:25	20:55	21:23
Victoria Rd (Kennedy Park)		16:47	17:07	17:27	17:47	18:07	18:27	18:47	19:05	19:26	19:56	20:26	20:56	21:24
Blackrock Road (Opp Ashton Schl)		16:48	17:08	17:28	17:48	18:08	18:28	18:48	19:06	19:26	19:56	20:26	20:56	21:24
Blackrock Road (Ashton Park)		16:49	17:09	17:29	17:49	18:09	18:29	18:49	19:06	19:27	19:57	20:27	20:57	21:25
Blackrock Road (Opp Richmond Est)		16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:07	19:27	19:57	20:27	20:57	21:25
Blackrock Road (Chiplee)		16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:07	19:28	19:58	20:28	20:58	21:26
Blackrock Road (Ballintemple Pharm)		16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:08	19:28	19:58	20:28	20:58	21:26
Blackrock Road (Opp Temple Inn)		16:52	17:12	17:32	17:52	18:12	18:32	18:52	19:09	19:29	19:59	20:29	20:59	21:27
Beaumont Drive (Beaumont Crescent)		16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:09	19:30	20:00	20:30	21:00	21:27
Beaumont Drive (Opposite Spar)		16:53	17:13	17:33	17:53	18:13	18:33	18:53	19:10	19:30	20:00	20:30	21:00	21:28
Beaumont Drive (Opp Beaumont Lawn)		16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:10	19:31	20:01	20:31	21:01	21:28
Beaumont Drive (Marian Park Opp Grotto)		16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:11	19:31	20:01	20:31	21:01	21:29
Skehard Road (Clontarf Estate)		16:57	17:17	17:37	17:57	18:17	18:37	18:57	19:13	19:33	20:03	20:33	21:03	21:30
Skehard Road (Opp Service Station)		16:57	17:17	17:37	17:57	18:17	18:37	18:57	19:13	19:34	20:04	20:34	21:04	21:31
Skehard Road (Opp CSO Office)		16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:14	19:34	20:04	20:34	21:04	21:31
Skehard Road (Nagle Comm Coll)		16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:14	19:35	20:05	20:35	21:05	21:32
Skehard Road (Rockwood Est)		16:59	17:19	17:39	17:59	18:19	18:39	18:59	19:15	19:35	20:05	20:35	21:05	21:32
Ringmahon Road (Opp Cemetery)		17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:16	19:36	20:06	20:36	21:06	21:33
Mahon Point (Omniplex)	arr	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:18	19:38	20:08	20:38	21:08	21:35

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202

Hollyhill to Mahon Point via Merchants Quay

Operating day		Sunday												
Hollyhill (Apple)	dep	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00
Harbour View Road (Hollyhill Ind Estate)		14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00
Hollyhill (Opp Hollywood Estate)		14:01	14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:01	18:31	19:01	19:31	20:01
Hollyhill (Opp Hillcrest Estate)		14:01	14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:01	18:31	19:01	19:31	20:01
Courtown Drive(Scoil Mhuire)		14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	18:03	18:33	19:03	19:33	20:02
Courtown Drive (Coolmaine)		14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	18:03	18:33	19:03	19:33	20:03
Kilmore Road (Opp Courtown Drive)		14:04	14:34	15:04	15:34	16:04	16:34	17:04	17:34	18:04	18:34	19:04	19:34	20:03
Kilmore Road (Meadow Ave)		14:04	14:34	15:04	15:34	16:04	16:34	17:04	17:34	18:04	18:34	19:04	19:34	20:04
Kilmore Road (Dunmore Gardens)		14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05	19:35	20:04
Knocknaheeney Avenue		14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05	19:35	20:05
Cronins Field (Opp Amenity Park)		14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:07	18:37	19:07	19:37	20:06
Churchfield Hill (Upper)		14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:07	18:37	19:07	19:37	20:07
Churchfield Hill (Lower)		14:08	14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:08	18:38	19:08	19:38	20:07
Churchfield Hill (Knockfree Stores)		14:08	14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:08	18:38	19:08	19:38	20:08
Gurranabraher Rd (Templeacre Jctn)		14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:39	19:09	19:39	20:08
Cathedral Road (Gurranabraher Rd Jctn)		14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:09	18:39	19:09	19:39	20:09
Cathedral Road (St Marys Place)		14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:10	18:40	19:10	19:40	20:09
Cathedral Road (School Ave)		14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:10	18:40	19:10	19:40	20:10
Cathedral Road (Wolfe Tone Uppr Jctn)		14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:41	19:11	19:41	20:10
Roman Street		14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:12	18:42	19:12	19:42	20:11
Upper John Street		14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:13	18:43	19:13	19:43	20:12
Mulgrave Rd		14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:13	18:43	19:13	19:43	20:12
Merchants Quay Eastbound		14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:21	18:51	19:21	19:51	20:20
Victoria Rd (Opposite Neptune House)		14:25	14:55	15:25	15:55	16:25	16:55	17:25	17:55	18:24	18:54	19:24	19:54	20:23
Victoria Rd (Kennedy Park)		14:26	14:56	15:26	15:56	16:26	16:56	17:26	17:56	18:25	18:55	19:25	19:55	20:23
Blackrock Road (Opp Ashton Schl)		14:27	14:57	15:27	15:57	16:27	16:57	17:27	17:57	18:26	18:56	19:26	19:56	20:24
Blackrock Road (Ashton Park)		14:27	14:57	15:27	15:57	16:27	16:57	17:27	17:57	18:27	18:56	19:26	19:56	20:24
Blackrock Road (Opp Richmond Est)		14:28	14:58	15:28	15:58	16:28	16:58	17:28	17:58	18:27	18:57	19:27	19:57	20:25
Blackrock Road (Chiplee)		14:28	14:58	15:28	15:58	16:28	16:58	17:28	17:58	18:28	18:57	19:27	19:57	20:25
Blackrock Road (Ballintemple Pharm)		14:29	14:59	15:29	15:59	16:29	16:59	17:29	17:59	18:28	18:58	19:28	19:58	20:26
Blackrock Road (Opp Temple Inn)		14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:29	18:59	19:29	19:59	20:26
Beaumont Drive (Beaumont Crescent)		14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:01	18:30	18:59	19:29	19:59	20:27
Beaumont Drive (Opposite Spar)		14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:01	18:30	19:00	19:30	20:00	20:27
Beaumont Drive (Opp Beaumont Lawn)		14:32	15:02	15:32	16:02	16:32	17:02	17:32	18:02	18:31	19:00	19:30	20:00	20:28
Beaumont Drive (Marian Park Opp Grotto)		14:32	15:02	15:32	16:02	16:32	17:02	17:32	18:02	18:31	19:01	19:31	20:01	20:28
Skehard Road (Clontarf Estate)		14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:33	19:03	19:33	20:03	20:30
Skehard Road (Opp Service Station)		14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:06	18:34	19:03	19:33	20:03	20:30
Skehard Road (Opp CSO Office)		14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:06	18:34	19:04	19:34	20:04	20:31
Skehard Road (Nagle Comm Coll)		14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:07	18:35	19:04	19:34	20:04	20:31
Skehard Road (Rockwood Est)		14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:08	18:35	19:05	19:35	20:05	20:32
Ringmahon Road (Opp Cemetery)		14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:36	19:06	19:36	20:06	20:33
Mahon Point (Omniplex)	arr	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:38	19:08	19:38	20:08	20:35

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202

Hollyhill to Mahon Point via Merchants Quay

Operating day		Sunday												
Hollyhill (Apple)	dep	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30
Harbour View Road (Hollyhill Ind Estate)		07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30
Hollyhill (Opp Hollywood Estate)		07:31	08:01	08:31	09:01	09:31	10:01	10:31	11:01	11:31	12:01	12:31	13:01	13:31
Hollyhill (Opp Hillcrest Estate)		07:31	08:01	08:31	09:01	09:31	10:01	10:31	11:01	11:31	12:01	12:31	13:01	13:31
Courtown Drive(Scoil Mhuire)		07:32	08:02	08:32	09:02	09:32	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33
Courtown Drive (Coolmaine)		07:33	08:03	08:33	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33
Kilmore Road (Opp Courtown Drive)		07:33	08:03	08:33	09:03	09:33	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34
Kilmore Road (Meadow Ave)		07:34	08:04	08:34	09:04	09:34	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34
Kilmore Road (Dunmore Gardens)		07:34	08:04	08:34	09:04	09:34	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35
Knocknaheeney Avenue		07:35	08:05	08:35	09:05	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35
Cronins Field (Opp Amenity Park)		07:36	08:06	08:36	09:06	09:36	10:07	10:37	11:07	11:37	12:07	12:37	13:07	13:37
Churchfield Hill (Upper)		07:37	08:07	08:37	09:07	09:37	10:07	10:37	11:07	11:37	12:07	12:37	13:07	13:37
Churchfield Hill (Lower)		07:37	08:07	08:37	09:07	09:37	10:08	10:38	11:08	11:38	12:08	12:38	13:08	13:38
Churchfield Hill (Knockfree Stores)		07:38	08:08	08:38	09:08	09:38	10:08	10:38	11:08	11:38	12:08	12:38	13:08	13:38
Gurranabraher Rd (Templeacre Jctn)		07:38	08:08	08:38	09:08	09:38	10:09	10:39	11:09	11:39	12:09	12:39	13:09	13:39
Cathedral Road (Gurranabraher Rd Jctn)		07:39	08:09	08:39	09:09	09:39	10:09	10:39	11:09	11:39	12:09	12:40	13:10	13:40
Cathedral Road (St Marys Place)		07:39	08:09	08:39	09:09	09:39	10:10	10:40	11:10	11:40	12:10	12:40	13:10	13:40
Cathedral Road (School Ave)		07:40	08:10	08:40	09:10	09:40	10:10	10:40	11:10	11:40	12:10	12:41	13:11	13:41
Cathedral Road (Wolfe Tone Uppr Jctn)		07:40	08:10	08:40	09:10	09:40	10:11	10:41	11:11	11:41	12:11	12:41	13:11	13:41
Roman Street		07:41	08:11	08:41	09:11	09:41	10:12	10:42	11:12	11:42	12:12	12:43	13:13	13:43
Upper John Street		07:42	08:12	08:42	09:12	09:42	10:13	10:43	11:13	11:43	12:13	12:43	13:13	13:43
Mulgrave Rd		07:42	08:12	08:42	09:12	09:42	10:13	10:43	11:13	11:43	12:13	12:44	13:14	13:44
Merchants Quay Eastbound		07:50	08:20	08:50	09:20	09:50	10:21	10:51	11:19	11:49	12:19	12:52	13:22	13:52
Victoria Rd (Opposite Neptune House)		07:53	08:23	08:53	09:23	09:53	10:24	10:54	11:22	11:52	12:22	12:55	13:25	13:55
Victoria Rd (Kennedy Park)		07:54	08:24	08:53	09:23	09:53	10:25	10:55	11:23	11:53	12:23	12:56	13:26	13:56
Blackrock Road (Opp Ashton Schl)		07:54	08:24	08:54	09:24	09:54	10:26	10:56	11:24	11:54	12:24	12:57	13:27	13:57
Blackrock Road (Ashton Park)		07:55	08:25	08:54	09:24	09:54	10:26	10:56	11:25	11:55	12:25	12:57	13:27	13:57
Blackrock Road (Opp Richmond Est)		07:55	08:25	08:55	09:25	09:55	10:27	10:57	11:25	11:55	12:25	12:58	13:28	13:58
Blackrock Road (Chiplee)		07:56	08:26	08:55	09:25	09:55	10:27	10:57	11:26	11:56	12:26	12:58	13:28	13:58
Blackrock Road (Ballintemple Pharm)		07:56	08:26	08:56	09:26	09:56	10:28	10:58	11:26	11:56	12:26	12:59	13:29	13:59
Blackrock Road (Opp Temple Inn)		07:57	08:27	08:56	09:26	09:56	10:29	10:59	11:27	11:57	12:27	13:00	13:30	14:00
Beaumont Drive (Beaumont Crescent)		07:57	08:27	08:57	09:27	09:57	10:29	10:59	11:28	11:58	12:28	13:01	13:31	14:01
Beaumont Drive (Opposite Spar)		07:58	08:28	08:57	09:27	09:57	10:30	11:00	11:28	11:58	12:28	13:01	13:31	14:01
Beaumont Drive (Opp Beaumont Lawn)		07:58	08:28	08:58	09:28	09:58	10:30	11:00	11:29	11:59	12:29	13:02	13:32	14:02
Beaumont Drive (Marian Park Opp Grotto)		07:59	08:29	08:58	09:28	09:58	10:31	11:01	11:29	11:59	12:29	13:02	13:32	14:02
Skehard Road (Clontarf Estate)		08:00	08:30	09:00	09:30	10:00	10:33	11:03	11:31	12:01	12:31	13:05	13:35	14:05
Skehard Road (Opp Service Station)		08:01	08:31	09:01	09:31	10:01	10:33	11:03	11:32	12:02	12:32	13:06	13:36	14:06
Skehard Road (Opp CSO Office)		08:02	08:32	09:01	09:31	10:01	10:34	11:04	11:32	12:02	12:32	13:06	13:36	14:06
Skehard Road (Nagle Comm Coll)		08:03	08:33	09:02	09:32	10:02	10:34	11:04	11:33	12:03	12:33	13:07	13:37	14:07
Skehard Road (Rockwood Est)		08:03	08:33	09:03	09:33	10:03	10:35	11:05	11:33	12:03	12:33	13:08	13:38	14:08
Ringmahon Road (Opp Cemetery)		08:04	08:34	09:04	09:34	10:04	10:36	11:06	11:34	12:04	12:34	13:09	13:39	14:09
Mahon Point (Omniplex)	arr	08:06	08:36	09:06	09:36	10:06	10:38	11:08	11:36	12:06	12:36	13:11	13:41	14:11

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215A

Jacobs Island to South Mall via Boreenmanna

Operating day		Monday - Friday												
Jacobs Island (The Sanctuary)	dep	07:15	07:45	08:20	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50	13:20
Jacobs Island (Sanctuary Rd Inbound)		07:16	07:46	08:21	08:51	09:21	09:51	10:21	10:51	11:21	11:51	12:21	12:51	13:21
Mahon Point Rd (Johnson & Perrott)		07:19	07:49	08:24	08:54	09:24	09:53	10:23	10:53	11:23	11:53	12:23	12:53	13:23
Mahon Point Rd (Opp City Gate)		07:21	07:51	08:26	08:56	09:26	09:54	10:24	10:54	11:24	11:54	12:24	12:54	13:24
Mahon Point Rd (Opp CSO Office)		07:22	07:52	08:27	08:57	09:27	09:55	10:25	10:55	11:25	11:55	12:25	12:55	13:25
Skehard Road (Service Station)		07:23	07:53	08:28	08:58	09:28	09:56	10:26	10:56	11:26	11:56	12:26	12:56	13:26
Skehard Road (Clover Lawn)		07:26	07:56	08:31	09:01	09:31	09:58	10:28	10:58	11:28	11:58	12:28	12:58	13:28
Skehard Road (Old Cliffe)		07:27	07:57	08:32	09:02	09:32	09:59	10:29	10:59	11:29	11:59	12:29	12:59	13:29
Skehard Road (Park Hill Jctn)		07:27	07:57	08:32	09:02	09:32	09:59	10:29	10:59	11:29	11:59	12:29	12:59	13:29
Churchyard Lane (Silver Key Bar)		07:29	07:59	08:34	09:04	09:34	10:01	10:31	11:01	11:31	12:01	12:31	13:01	13:31
Boreenmanna Road (Pairc Ui Rinn)		07:30	08:00	08:35	09:05	09:35	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32
Boreenmanna Road (Opp Elderwood)		07:31	08:01	08:36	09:06	09:36	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32
Boreenmanna Road (Opp Bellfield)		07:32	08:02	08:37	09:07	09:37	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33
Boreenmanna Road (Willow Lawn)		07:33	08:03	08:38	09:08	09:38	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34
Boreenmanna Road (Yorkboro)		07:35	08:05	08:40	09:10	09:40	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35
South Terrace		07:40	08:10	08:45	09:15	09:45	10:09	10:39	11:09	11:39	12:09	12:39	13:09	13:39
Georges Quay		07:42	08:12	08:47	09:17	09:47	10:11	10:41	11:11	11:41	12:11	12:41	13:11	13:41
South Mall (VHI House Stop A)	arr	07:43	08:13	08:48	09:18	09:48	10:16	10:46	11:16	11:46	12:16	12:46	13:16	13:46

Operating day		Monday - Friday										
Jacobs Island (The Sanctuary)	dep	13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:20	18:50
Jacobs Island (Sanctuary Rd Inbound)		13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:21	17:51	18:21	18:51
Mahon Point Rd (Johnson & Perrott)		13:53	14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:23	18:53
Mahon Point Rd (Opp City Gate)		13:54	14:24	14:54	15:25	15:55	16:25	16:55	17:25	17:55	18:25	18:55
Mahon Point Rd (Opp CSO Office)		13:55	14:25	14:55	15:26	15:56	16:26	16:56	17:26	17:56	18:26	18:56
Skehard Road (Service Station)		13:56	14:26	14:56	15:27	15:57	16:27	16:57	17:27	17:57	18:27	18:57
Skehard Road (Clover Lawn)		13:58	14:28	14:58	15:30	16:00	16:30	17:00	17:30	18:00	18:30	18:59
Skehard Road (Old Cliffe)		13:59	14:29	14:59	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Skehard Road (Park Hill Jctn)		13:59	14:29	14:59	15:31	16:01	16:31	17:01	17:31	18:01	18:31	19:00
Churchyard Lane (Silver Key Bar)		14:01	14:31	15:01	15:32	16:02	16:32	17:02	17:32	18:02	18:32	19:02
Boreenmanna Road (Pairc Ui Rinn)		14:02	14:32	15:02	15:33	16:03	16:33	17:03	17:33	18:03	18:33	19:03
Boreenmanna Road (Opp Elderwood)		14:02	14:32	15:02	15:34	16:04	16:34	17:04	17:34	18:04	18:34	19:03
Boreenmanna Road (Opp Bellfield)		14:03	14:33	15:03	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:04
Boreenmanna Road (Willow Lawn)		14:04	14:34	15:04	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05
Boreenmanna Road (Yorkboro)		14:05	14:35	15:05	15:37	16:07	16:37	17:07	17:37	18:07	18:37	19:06
South Terrace		14:09	14:39	15:09	15:41	16:11	16:41	17:11	17:41	18:11	18:41	19:10
Georges Quay		14:11	14:41	15:11	15:43	16:13	16:43	17:13	17:43	18:13	18:43	19:12
South Mall (VHI House Stop A)	arr	14:16	14:46	15:16	15:48	16:18	16:48	17:18	17:48	18:18	18:48	19:17

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 22.09.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

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Hollyhill to Mahon Point via Merchants Quay

Operating day		Sunday						
Hollyhill (Apple)	dep	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Harbour View Road (Hollyhill Ind Estate)		20:30	21:00	21:30	22:00	22:30	23:00	23:30
Hollyhill (Opp Hollywood Estate)		20:31	21:01	21:31	22:01	22:31	23:01	23:31
Hollyhill (Opp Hillcrest Estate)		20:31	21:01	21:31	22:01	22:31	23:01	23:31
Courtown Drive(Scoil Mhuire)		20:32	21:02	21:32	22:02	22:32	23:02	23:32
Courtown Drive (Coolmaine)		20:33	21:03	21:33	22:03	22:33	23:03	23:33
Kilmore Road (Opp Courtown Drive)		20:33	21:03	21:33	22:03	22:33	23:03	23:33
Kilmore Road (Meadow Ave)		20:34	21:04	21:34	22:04	22:34	23:04	23:34
Kilmore Road (Dunmore Gardens)		20:34	21:04	21:34	22:04	22:34	23:04	23:34
Knocknaheeney Avenue		20:35	21:05	21:35	22:05	22:35	23:05	23:35
Cronins Field (Opp Amenity Park)		20:36	21:06	21:36	22:06	22:36	23:06	23:36
Churchfield Hill (Upper)		20:37	21:07	21:37	22:07	22:37	23:07	23:37
Churchfield Hill (Lower)		20:37	21:07	21:37	22:07	22:37	23:07	23:37
Churchfield Hill (Knockfree Stores)		20:38	21:08	21:38	22:08	22:38	23:08	23:38
Gurranabraher Rd (Templeacre Jctn)		20:38	21:08	21:38	22:08	22:38	23:08	23:38
Cathedral Road (Gurranabraher Rd Jctn)		20:39	21:09	21:39	22:09	22:39	23:09	23:39
Cathedral Road (St Marys Place)		20:39	21:09	21:39	22:09	22:39	23:09	23:39
Cathedral Road (School Ave)		20:40	21:10	21:40	22:10	22:40	23:10	23:40
Cathedral Road (Wolfe Tone Uppr Jctn)		20:40	21:10	21:40	22:10	22:40	23:10	23:40
Roman Street		20:41	21:11	21:41	22:11	22:41	23:11	23:41
Upper John Street		20:42	21:12	21:42	22:12	22:42	23:12	23:42
Mulgrave Rd		20:42	21:12	21:42	22:12	22:42	23:12	23:42
Merchants Quay Eastbound		20:50	21:20	21:50	22:20	22:50	23:20	23:46
Victoria Rd (Opposite Neptune House)		20:53	21:23	21:53	22:23	22:53	23:23	
Victoria Rd (Kennedy Park)		20:53	21:23	21:53	22:23	22:53	23:23	
Blackrock Road (Opp Ashton Schl)		20:54	21:24	21:54	22:24	22:54	23:24	
Blackrock Road (Ashton Park)		20:54	21:24	21:54	22:24	22:54	23:24	
Blackrock Road (Opp Richmond Est)		20:55	21:25	21:55	22:25	22:55	23:25	
Blackrock Road (Chiplee)		20:55	21:25	21:55	22:25	22:55	23:25	
Blackrock Road (Ballintemple Pharm)		20:56	21:26	21:56	22:26	22:56	23:26	
Blackrock Road (Opp Temple Inn)		20:56	21:26	21:56	22:26	22:56	23:26	
Beaumont Drive (Beaumont Crescent)		20:57	21:27	21:57	22:27	22:57	23:27	
Beaumont Drive (Opposite Spar)		20:57	21:27	21:57	22:27	22:57	23:27	
Beaumont Drive (Opp Beaumont Lawn)		20:58	21:28	21:58	22:28	22:58	23:28	
Beaumont Drive (Marian Park Opp Grotto)		20:58	21:28	21:58	22:28	22:58	23:28	
Skehard Road (Clontarf Estate)		21:00	21:30	22:00	22:30	23:00	23:30	
Skehard Road (Opp Service Station)		21:00	21:30	22:00	22:30	23:00	23:30	
Skehard Road (Opp CSO Office)		21:01	21:31	22:01	22:31	23:01	23:31	
Skehard Road (Nagle Comm Coll)		21:01	21:31	22:01	22:31	23:01	23:31	
Skehard Road (Rockwood Est)		21:02	21:32	22:02	22:32	23:02	23:32	
Ringmahon Road (Opp Cemetery)		21:03	21:33	22:03	22:33	23:03	23:33	
Mahon Point (Omniplex)	arr	21:05	21:35	22:05	22:35	23:05	23:35	

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 02.02.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Mahon Point to Cloghroe via Blarney

Operating day		Monday - Friday											
Jacobs Island (The Sanctuary)	dep			07:05	07:30	08:05	08:35	09:05	09:35	10:05	10:35	11:05	11:35	12:05
Jacobs Island (Sanctuary Rd Inbound)				07:05	07:30	08:05	08:35	09:05	09:35	10:05	10:35	11:05	11:35	12:05
Mahon Point Rd (Johnson & Perrott)				07:07	07:32	08:07	08:37	09:07	09:37	10:07	10:37	11:07	11:37	12:07
Mahon Point Rd (Opp City Gate)				07:08	07:33	08:09	08:39	09:09	09:39	10:09	10:39	11:09	11:39	12:09
Mahon Point Rd (Opp CSO Office)				07:08	07:33	08:11	08:39	09:09	09:39	10:09	10:39	11:09	11:39	12:09
Skehard Road (Service Station)				07:10	07:35	08:12	08:40	09:10	09:40	10:10	10:40	11:10	11:40	12:10
Skehard Road (Clover Lawn)				07:12	07:37	08:15	08:43	09:13	09:43	10:13	10:43	11:13	11:43	12:13
Skehard Road (Old Cliffe)				07:14	07:39	08:16	08:44	09:14	09:44	10:14	10:44	11:14	11:44	12:14
Skehard Road (Park Hill Jctn)				07:14	07:39	08:17	08:44	09:14	09:44	10:14	10:44	11:14	11:44	12:14
Churchyard Lane (Silver Key Bar)				07:16	07:41	08:18	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16
Ballinlough Road (Carrigmore Park)				07:16	07:41	08:19	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16
Ballinlough Road (Opp Shrewsbury Estate)				07:17	07:42	08:19	08:47	09:17	09:47	10:17	10:47	11:17	11:47	12:17
Ballinlough Road (Sundrive Park)				07:17	07:42	08:20	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:18
Ballinlough Road (Opp Community Centre)				07:18	07:43	08:20	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:18
Ballinlough Road (Pic Du Jer Park)				07:18	07:43	08:21	08:49	09:19	09:49	10:19	10:49	11:19	11:49	12:19
Ballinlough Road (Opp Our Lady Church)				07:19	07:44	08:21	08:49	09:19	09:49	10:19	10:49	11:19	11:49	12:19
Ballinlough Road (Knockrea)				07:19	07:44	08:22	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20
Bellair Junction				07:21	07:46	08:23	08:51	09:21	09:51	10:21	10:51	11:21	11:51	12:21
Saint Finbarrs Hospital				07:22	07:47	08:24	08:51	09:21	09:51	10:21	10:51	11:21	11:51	12:21
Southern Road				07:23	07:48	08:25	08:52	09:22	09:52	10:22	10:52	11:22	11:52	12:22
Infirmary Road				07:24	07:49	08:26	08:53	09:23	09:53	10:23	10:53	11:23	11:53	12:23
South Terrace				07:24	07:49	08:27	08:55	09:25	09:55	10:25	10:55	11:25	11:55	12:25
Georges Quay				07:25	07:50	08:29	08:56	09:26	09:56	10:26	10:56	11:26	11:56	12:26
Grand Parade				07:27	07:52	08:31	08:58	09:28	09:58	10:28	10:58	11:28	11:58	12:28
St. Patrick St (Drawbridge St Jctn)		06:35	07:05	07:35	08:02	08:38	09:09	09:39	10:09	10:39	11:09	11:39	12:09	12:39
Coburg Street		06:37	07:07	07:37	08:04	08:41	09:11	09:41	10:11	10:41	11:11	11:41	12:11	12:41
South Mall (VHI House Stop A)		|	|	|	|	|	|	|	|	|	|	|	|	|
St. Patrick Street (Brown Thomas A)		|	|	|	|	|	|	|	|	|	|	|	|	|
Watercourse Road (Blackpool Pharmacy)		06:41	07:11	07:41	08:08	08:44	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45
Watercourse Road (Blackpool Health Ctr)		06:42	07:12	07:42	08:09	08:45	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46
Watercourse Road (Blackpool Church)		06:43	07:13	07:43	08:10	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46
Dublin Street (Dunnes)		06:44	07:14	07:44	08:11	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48
Dublin Street (Ulster Bank)		06:45	07:15	07:45	08:12	08:49	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48
Red Forge Road (Sunbeam)		06:46	07:16	07:46	08:13	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50
Mallow Road (Planet Complex)		06:47	07:17	07:47	08:14	08:52	09:21	09:51	10:21	10:51	11:21	11:51	12:21	12:51
New Commons Road (Onslow Gardens Jctn)		06:49	07:19	07:49	08:16	08:54	09:23	09:53	10:23	10:53	11:23	11:53	12:23	12:53
North Point (Opp Business Park)		06:51	07:21	07:51	08:18	08:55	09:24	09:54	10:24	10:54	11:24	11:54	12:24	12:54
Sunset Place (Ring House)		06:52	07:22	07:52	08:19	08:57	09:25	09:55	10:25	10:55	11:25	11:55	12:25	12:55
Kileens (Opposite Overpass)		06:54	07:24	07:54	08:21	08:58	09:27	09:57	10:27	10:57	11:27	11:57	12:27	12:57
Clogheenmilcon		06:56	07:26	07:56	08:23	09:01	09:29	09:59	10:29	10:59	11:29	11:59	12:29	12:59
Blarney (Filling Station)		06:58	07:28	07:58	08:25	09:03	09:31	10:01	10:31	11:01	11:31	12:01	12:31	13:01
Blarney Village (Woolen Mills)		06:59	07:29	07:59	08:26	09:05	09:32	10:02	10:32	11:02	11:32	12:02	12:32	13:02
Blarney (St Anne's Road)		07:00	07:30	08:00	08:27	09:06	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03
St. Annes Road (Pauls Cross)		07:02	07:32	08:02	08:29	09:08	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05
St. Annes Hill (Willison Park)		07:02	07:32	08:02	08:29	09:09	09:36	10:06	10:36	11:06	11:36	12:06	12:36	13:06
St. Annes Hill (Riverview Estate)		07:03	07:33	08:03	08:30	09:09	09:36	10:06	10:36	11:06	11:36	12:06	12:36	13:06
St. Annes Hill (Matanatha B&B)		07:03	07:33	08:03	08:30	09:10	09:37	10:07	10:37	11:07	11:37	12:07	12:37	13:07
St. Annes Hill (Primrose Hill)		07:04	07:34	08:04	08:31	09:10	09:37	10:07	10:37	11:07	11:37	12:07	12:37	13:07
Tower Village (Service Station)		07:05	07:35	08:05	08:32	09:11	09:38	10:08	10:38	11:08	11:38	12:08	12:38	13:08
Tower Village (Tower Hall)		07:05	07:35	08:05	08:32	09:11	09:39	10:09	10:39	11:09	11:39	12:09	12:39	13:09
Cloghroe (Fairways Terminus)	arr	07:08	07:38	08:08	08:35	09:13	09:42	10:12	10:42	11:12	11:42	12:12	12:42	13:12

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215A South Mall to Jacobs Island via Boreenmanna

Operating day		Monday - Friday											
South Mall (VHI House Stop A)	dep	06:45	07:15	07:45	08:15	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50
Cork City Hall		06:46	07:17	07:47	08:17	08:52	09:22	09:52	10:22	10:52	11:22	11:52	12:22	12:52
Boreenmanna Rd (Opp Bernadette Way)		06:49	07:20	07:50	08:20	08:55	09:25	09:55	10:25	10:55	11:25	11:55	12:25	12:55
Boreenmanna Road (Ashton School)		06:49	07:21	07:51	08:21	08:56	09:26	09:56	10:26	10:56	11:26	11:56	12:26	12:56
Boreenmanna Road (Opp Willow Lawn)		06:50	07:21	07:51	08:21	08:56	09:26	09:56	10:26	10:56	11:26	11:56	12:26	12:56
Boreenmanna Road (Elderwood Drive)		06:51	07:22	07:52	08:22	08:57	09:27	09:57	10:27	10:57	11:27	11:57	12:27	12:57
Boreenmanna Road (Opp Pairc U Rinn)		06:51	07:23	07:53	08:23	08:58	09:28	09:58	10:28	10:58	11:28	11:58	12:28	12:58
Churchyard Lane (Silverdale)		06:52	07:24	07:54	08:24	08:59	09:29	09:59	10:29	10:59	11:29	11:59	12:29	12:59
Skehard Road (Opposite Park Hill)		06:53	07:25	07:55	08:25	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00
Skehard Road (Ashleigh Rise)		06:53	07:25	07:55	08:25	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00
Skehard Road (Opp Clover Lawn)		06:54	07:26	07:56	08:26	09:01	09:31	10:01	10:31	11:01	11:31	12:01	12:31	13:01
Skehard Road (Clontarf Estate)		06:54	07:27	07:57	08:27	09:02	09:32	10:02	10:32	11:02	11:32	12:02	12:32	13:02
Skehard Road (Opp Service Station)		06:55	07:28	07:58	08:28	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03
Mahon Point Rd (CSO Office)		06:56	07:29	07:59	08:29	09:04	09:34	10:04	10:34	11:04	11:34	12:04	12:34	13:04
Mahon Point Rd (City Gate)		06:57	07:31	08:01	08:31	09:06	09:36	10:05	10:35	11:05	11:35	12:05	12:35	13:05
Mahon Point Rd (Mahon Point Centre)		06:58	07:32	08:02	08:32	09:07	09:37	10:06	10:36	11:06	11:36	12:06	12:36	13:06
Jacobs Island (Sanctuary Rd Outbound)		07:00	07:34	08:04	08:34	09:09	09:39	10:08	10:38	11:08	11:38	12:08	12:38	13:08
Jacobs Island (The Sanctuary)	arr	07:05	07:39	08:09	08:39	09:16	09:46	10:15	10:45	11:15	11:45	12:15	12:45	13:15

Operating day		Monday - Friday										
South Mall (VHI House Stop A)	dep	13:20	13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:20
Cork City Hall		13:22	13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22
Boreenmanna Rd (Opp Bernadette Way)		13:25	13:55	14:25	14:55	15:25	15:55	16:26	16:56	17:26	17:56	18:26
Boreenmanna Road (Ashton School)		13:26	13:56	14:26	14:56	15:26	15:56	16:27	16:57	17:27	17:57	18:27
Boreenmanna Road (Opp Willow Lawn)		13:26	13:56	14:26	14:56	15:26	15:56	16:28	16:58	17:28	17:58	18:27
Boreenmanna Road (Elderwood Drive)		13:27	13:57	14:27	14:57	15:27	15:57	16:29	16:59	17:29	17:59	18:28
Boreenmanna Road (Opp Pairc U Rinn)		13:28	13:58	14:28	14:58	15:28	15:58	16:29	16:59	17:29	17:59	18:29
Churchyard Lane (Silverdale)		13:29	13:59	14:29	14:59	15:29	15:59	16:31	17:01	17:31	18:01	18:30
Skehard Road (Opposite Park Hill)		13:30	14:00	14:30	15:00	15:30	16:00	16:32	17:02	17:32	18:02	18:31
Skehard Road (Ashleigh Rise)		13:31	14:01	14:31	15:01	15:31	16:01	16:32	17:02	17:32	18:02	18:32
Skehard Road (Opp Clover Lawn)		13:32	14:02	14:32	15:02	15:32	16:02	16:33	17:03	17:33	18:03	18:33
Skehard Road (Clontarf Estate)		13:33	14:03	14:33	15:03	15:33	16:03	16:34	17:04	17:34	18:04	18:34
Skehard Road (Opp Service Station)		13:34	14:04	14:34	15:04	15:34	16:04	16:35	17:05	17:35	18:05	18:35
Mahon Point Rd (CSO Office)		13:35	14:05	14:35	15:05	15:35	16:05	16:37	17:07	17:37	18:07	18:36
Mahon Point Rd (City Gate)		13:36	14:06	14:36	15:06	15:36	16:06	16:38	17:08	17:38	18:08	18:37
Mahon Point Rd (Mahon Point Centre)		13:38	14:08	14:38	15:08	15:38	16:08	16:41	17:11	17:41	18:11	18:39
Jacobs Island (Sanctuary Rd Outbound)		13:40	14:10	14:40	15:10	15:40	16:10	16:43	17:13	17:43	18:13	18:41
Jacobs Island (The Sanctuary)	arr	13:45	14:15	14:45	15:15	15:45	16:15	16:48	17:18	17:48	18:18	18:46

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 22.09.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Mahon Point to Cloghroe via Blarney

Operating day		Monday - Friday									
Jacobs Island (The Sanctuary)	dep	19:05	19:35	20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Jacobs Island (Sanctuary Rd Inbound)		19:05	19:35	20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Mahon Point Rd (Johnson & Perrott)		19:07	19:37	20:07	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Mahon Point Rd (Opp City Gate)		19:09	19:38	20:08	20:38	21:08	21:38	22:08	22:38	23:08	23:38
Mahon Point Rd (Opp CSO Office)		19:10	19:39	20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Road (Service Station)		19:11	19:39	20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Road (Clover Lawn)		19:13	19:41	20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Skehard Road (Old Cliffe)		19:14	19:41	20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Skehard Road (Park Hill Jctn)		19:15	19:42	20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Churchyard Lane (Silver Key Bar)		19:16	19:42	20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Ballinlough Road (Carrigmore Park)		19:17	19:43	20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ballinlough Road (Opp Shrewsbury Estate)		19:17	19:43	20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ballinlough Road (Sundrive Park)		19:18	19:44	20:14	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Ballinlough Road (Opp Community Centre)		19:18	19:44	20:14	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Ballinlough Road (Pic Du Jer Park)		19:19	19:45	20:15	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Ballinlough Road (Opp Our Lady Church)		19:19	19:45	20:15	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Ballinlough Road (Knockrea)		19:20	19:46	20:16	20:46	21:16	21:46	22:16	22:46	23:16	23:46
Bellair Junction		19:21	19:47	20:17	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Saint Finbarrs Hospital		19:21	19:47	20:17	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Southern Road		19:22	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
Infirmary Road		19:23	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
South Terrace		19:23	19:49	20:19	20:49	21:19	21:49	22:19	22:49	23:19	23:49
Georges Quay		19:24	19:49	20:19	20:49	21:19	21:49	22:19	22:49	23:19	23:49
Grand Parade		19:26	19:51	20:21	20:51	21:21	21:51	22:21	22:51	23:21	23:51
St. Patrick St (Drawbridge St Jctn)		19:34	19:58	20:28	20:58	21:28	21:58	22:28	22:58	23:24	23:54
Coburg Street		19:36	19:59	20:29	20:59	21:29	21:59	22:29	22:59		
South Mall (VHI House Stop A)		|	|	|	|	|	|	|	|		
St. Patrick Street (Brown Thomas A)		|	|	|	|	|	|	|	|		
Watercourse Road (Blackpool Pharmacy)		19:40	20:01	20:31	21:01	21:31	22:01	22:31	23:01		
Watercourse Road (Blackpool Health Ctr)		19:41	20:01	20:31	21:01	21:31	22:01	22:31	23:01		
Watercourse Road (Blackpool Church)		19:41	20:02	20:32	21:02	21:32	22:02	22:32	23:02		
Dublin Street (Dunnes)		19:42	20:03	20:33	21:03	21:33	22:03	22:33	23:03		
Dublin Street (Ulster Bank)		19:43	20:03	20:33	21:03	21:33	22:03	22:33	23:03		
Red Forge Road (Sunbeam)		19:44	20:05	20:35	21:05	21:35	22:05	22:35	23:05		
Mallow Road (Planet Complex)		19:46	20:05	20:35	21:05	21:35	22:05	22:35	23:05		
New Commons Road (Onslow Gardens Jctn)		19:48	20:07	20:37	21:07	21:37	22:07	22:37	23:07		
North Point (Opp Business Park)		19:49	20:09	20:39	21:09	21:39	22:09	22:39	23:09		
Sunset Place (Ring House)		19:50	20:10	20:40	21:10	21:40	22:10	22:40	23:10		
Kileens (Opposite Overpass)		19:52	20:11	20:41	21:11	21:41	22:11	22:41	23:11		
Clogheenmilcon		19:54	20:14	20:44	21:14	21:44	22:14	22:44	23:14		
Blarney (Filling Station)		19:56	20:16	20:46	21:16	21:46	22:16	22:46	23:16		
Blarney Village (Woolen Mills)		19:57	20:18	20:48	21:18	21:48	22:18	22:48	23:18		
Blarney (St Anne's Road)		19:58	20:18	20:48	21:18	21:48	22:18	22:48	23:18		
St. Annes Road (Pauls Cross)		20:00	20:20	20:50	21:20	21:50	22:20	22:50	23:20		
St. Annes Hill (Willison Park)		20:00	20:21	20:51	21:21	21:51	22:21	22:51	23:21		
St. Annes Hill (Riverview Estate)		20:01	20:21	20:51	21:21	21:51	22:21	22:51	23:21		
St. Annes Hill (Matanatha B&B)		20:01	20:22	20:52	21:22	21:52	22:22	22:52	23:22		
St. Annes Hill (Primrose Hill)		20:02	20:22	20:52	21:22	21:52	22:22	22:52	23:22		
Tower Village (Service Station)		20:02	20:23	20:53	21:23	21:53	22:23	22:53	23:23		
Tower Village (Tower Hall)		20:03	20:23	20:53	21:23	21:53	22:23	22:53	23:23		
Cloghroe (Fairways Terminus)	arr	20:06	20:26	20:56	21:26	21:56	22:26	22:56	23:26		

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Mahon Point to Cloghroe via Blarney

Operating day		Monday - Friday													
Jacobs Island (The Sanctuary)	dep	12:35	13:05	13:35	14:05	14:35	15:05	15:30	16:00	16:25	16:55	17:25	18:00	18:30	
Jacobs Island (Sanctuary Rd Inbound)		12:35	13:05	13:35	14:05	14:35	15:05	15:30	16:00	16:25	16:55	17:25	18:00	18:30	
Mahon Point Rd (Johnson & Perrott)		12:37	13:07	13:37	14:07	14:37	15:07	15:32	16:02	16:27	16:57	17:27	18:02	18:32	
Mahon Point Rd (Opp City Gate)		12:39	13:09	13:39	14:09	14:39	15:09	15:34	16:04	16:29	16:59	17:29	18:04	18:34	
Mahon Point Rd (Opp CSO Office)		12:39	13:09	13:41	14:11	14:41	15:10	15:35	16:05	16:30	17:01	17:30	18:04	18:34	
Skehard Road (Service Station)		12:40	13:10	13:42	14:12	14:42	15:11	15:36	16:06	16:31	17:02	17:32	18:05	18:35	
Skehard Road (Clover Lawn)		12:43	13:13	13:45	14:15	14:45	15:14	15:39	16:09	16:34	17:05	17:34	18:08	18:38	
Skehard Road (Old Cliffe)		12:44	13:14	13:46	14:16	14:46	15:15	15:40	16:10	16:35	17:06	17:35	18:09	18:39	
Skehard Road (Park Hill Jctn)		12:44	13:14	13:47	14:17	14:47	15:15	15:40	16:10	16:35	17:07	17:36	18:09	18:39	
Churchyard Lane (Silver Key Bar)		12:46	13:16	13:48	14:18	14:48	15:17	15:42	16:12	16:37	17:08	17:37	18:11	18:41	
Ballinlough Road (Carrigmore Park)		12:46	13:16	13:49	14:19	14:49	15:17	15:42	16:12	16:37	17:09	17:38	18:11	18:41	
Ballinlough Road (Opp Shrewsbury Estate)		12:47	13:17	13:49	14:19	14:49	15:18	15:43	16:13	16:38	17:09	17:38	18:12	18:42	
Ballinlough Road (Sundrive Park)		12:48	13:18	13:50	14:20	14:50	15:18	15:43	16:13	16:38	17:10	17:39	18:13	18:43	
Ballinlough Road (Opp Community Centre)		12:48	13:18	13:50	14:20	14:50	15:19	15:44	16:14	16:39	17:10	17:39	18:13	18:43	
Ballinlough Road (Pic Du Jer Park)		12:49	13:19	13:51	14:21	14:51	15:19	15:44	16:14	16:39	17:11	17:40	18:14	18:44	
Ballinlough Road (Opp Our Lady Church)		12:49	13:19	13:51	14:21	14:51	15:20	15:45	16:15	16:40	17:11	17:40	18:14	18:44	
Ballinlough Road (Knockrea)		12:50	13:20	13:52	14:22	14:52	15:20	15:45	16:15	16:40	17:12	17:41	18:15	18:45	
Bellair Junction		12:51	13:21	13:53	14:23	14:53	15:21	15:46	16:16	16:41	17:13	17:42	18:16	18:46	
Saint Finbarrs Hospital		12:51	13:21	13:54	14:24	14:54	15:23	15:48	16:18	16:43	17:14	17:43	18:16	18:46	
Southern Road		12:52	13:22	13:55	14:25	14:55	15:24	15:49	16:19	16:44	17:15	17:44	18:17	18:47	
Infirmary Road		12:53	13:23	13:56	14:26	14:56	15:25	15:50	16:20	16:45	17:16	17:45	18:18	18:48	
South Terrace		12:55	13:25	13:57	14:27	14:57	15:26	15:51	16:21	16:46	17:17	17:46	18:20	18:50	
Georges Quay		12:56	13:26	13:59	14:29	14:59	15:28	15:53	16:23	16:48	17:19	17:47	18:21	18:51	
Grand Parade		12:58	13:28	14:01	14:31	15:01	15:30	15:55	16:25	16:50	17:21	17:49	18:23	18:53	
St. Patrick St (Drawbridge St Jctn)		13:09	13:39	14:08	14:38	15:08	15:41	16:06	16:36	17:01	17:32	18:00	18:34	19:02	
Coburg Street		13:11	13:41	14:11	14:41	15:10	15:43	16:08	16:38	17:03	17:34	18:02	18:36	19:04	
South Mall (VHI House Stop A)		|	|	|	|	|	|	|	|	|	|	|	|	|	
St. Patrick Street (Brown Thomas A)		|	|	|	|	|	|	|	|	|	|	|	|	|	
Watercourse Road (Blackpool Pharmacy)		13:15	13:45	14:14	14:44	15:14	15:47	16:12	16:42	17:07	17:38	18:06	18:40	19:08	
Watercourse Road (Blackpool Health Ctr)		13:16	13:46	14:15	14:45	15:15	15:48	16:13	16:43	17:08	17:39	18:07	18:41	19:09	
Watercourse Road (Blackpool Church)		13:16	13:46	14:16	14:46	15:16	15:49	16:14	16:44	17:09	17:40	18:08	18:41	19:09	
Dublin Street (Dunnes)		13:18	13:48	14:18	14:48	15:17	15:50	16:15	16:45	17:10	17:41	18:09	18:43	19:11	
Dublin Street (Ulster Bank)		13:18	13:48	14:19	14:49	15:18	15:51	16:16	16:46	17:11	17:42	18:10	18:43	19:11	
Red Forge Road (Sunbeam)		13:20	13:50	14:20	14:50	15:20	15:53	16:18	16:48	17:13	17:44	18:11	18:45	19:13	
Mallow Road (Planet Complex)		13:21	13:51	14:22	14:52	15:21	15:54	16:19	16:49	17:14	17:45	18:13	18:46	19:14	
New Commons Road (Onslow Gardens Jctn)		13:23	13:53	14:24	14:54	15:23	15:56	16:21	16:51	17:16	17:47	18:15	18:48	19:16	
North Point (Opp Business Park)		13:24	13:54	14:25	14:55	15:25	15:58	16:23	16:53	17:18	17:49	18:16	18:49	19:17	
Sunset Place (Ring House)		13:25	13:55	14:27	14:57	15:26	15:59	16:24	16:54	17:19	17:50	18:17	18:50	19:18	
Kileens (Opposite Overpass)		13:27	13:57	14:28	14:58	15:28	16:00	16:25	16:55	17:20	17:52	18:19	18:52	19:20	
Clogheenmilcon		13:29	13:59	14:31	15:01	15:30	16:03	16:28	16:58	17:23	17:54	18:21	18:54	19:22	
Blarney (Filling Station)		13:31	14:01	14:33	15:03	15:33	16:05	16:30	17:00	17:25	17:57	18:23	18:56	19:24	
Blarney Village (Woolen Mills)		13:32	14:02	14:35	15:05	15:35	16:08	16:33	17:03	17:28	17:59	18:24	18:57	19:25	
Blarney (St Anne's Road)		13:33	14:03	14:36	15:06	15:36	16:09	16:34	17:04	17:29	18:00	18:25	18:58	19:26	
St. Annes Road (Pauls Cross)		13:35	14:05	14:38	15:08	15:38	16:11	16:36	17:06	17:31	18:02	18:27	19:00	19:28	
St. Annes Hill (Willison Park)		13:36	14:06	14:39	15:09	15:38	16:11	16:36	17:06	17:31	18:02	18:27	19:01	19:29	
St. Annes Hill (Riverview Estate)		13:36	14:06	14:39	15:09	15:39	16:12	16:37	17:07	17:32	18:03	18:28	19:01	19:29	
St. Annes Hill (Matanatha B&B)		13:37	14:07	14:40	15:10	15:39	16:12	16:37	17:07	17:32	18:03	18:28	19:02	19:30	
St. Annes Hill (Primrose Hill)		13:37	14:07	14:40	15:10	15:40	16:13	16:38	17:08	17:33	18:04	18:29	19:02	19:30	
Tower Village (Service Station)		13:38	14:08	14:41	15:11	15:40	16:14	16:39	17:09	17:34	18:04	18:30	19:03	19:31	
Tower Village (Tower Hall)		13:39	14:09	14:41	15:11	15:41	16:14	16:39	17:09	17:34	18:05	18:31	19:04	19:32	
Cloghroe (Fairways Terminus)	arr	13:42	14:12	14:43	15:13	15:43	16:17	16:42	17:12	17:37	18:07	18:35	19:07	19:35	

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215 Mahon Point to Cloghroe via Blarney

Operating day		Saturday												
Jacobs Island (The Sanctuary)	dep	13:35	14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05	19:35
Jacobs Island (Sanctuary Rd Inbound)		13:35	14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05	19:35
Mahon Point Rd (Johnson & Perrott)		13:37	14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:07	18:37	19:07	19:37
Mahon Point Rd (Opp City Gate)		13:39	14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:39	19:08	19:38
Mahon Point Rd (Opp CSO Office)		13:39	14:09	14:39	15:09	15:39	16:09	16:39	17:10	17:40	18:10	18:40	19:09	19:39
Skehard Road (Service Station)		13:40	14:10	14:40	15:10	15:40	16:10	16:40	17:12	17:42	18:12	18:41	19:09	19:39
Skehard Road (Clover Lawn)		13:43	14:13	14:43	15:13	15:43	16:13	16:43	17:14	17:44	18:14	18:43	19:11	19:41
Skehard Road (Old Cliffe)		13:44	14:14	14:44	15:14	15:44	16:14	16:44	17:15	17:45	18:15	18:44	19:11	19:41
Skehard Road (Park Hill Jctn)		13:44	14:14	14:44	15:14	15:44	16:14	16:44	17:16	17:46	18:16	18:45	19:12	19:42
Churchyard Lane (Silver Key Bar)		13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:17	17:47	18:17	18:46	19:12	19:42
Ballinlough Road (Carrigmore Park)		13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:18	17:48	18:18	18:47	19:13	19:43
Ballinlough Road (Opp Shrewsbury Estate)		13:47	14:17	14:47	15:17	15:47	16:17	16:47	17:18	17:48	18:18	18:47	19:13	19:43
Ballinlough Road (Sundrive Park)		13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:19	17:49	18:19	18:48	19:14	19:44
Ballinlough Road (Opp Community Centre)		13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:19	17:49	18:19	18:48	19:14	19:44
Ballinlough Road (Pic Du Jer Park)		13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:20	17:50	18:20	18:49	19:15	19:45
Ballinlough Road (Opp Our Lady Church)		13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:20	17:50	18:20	18:49	19:15	19:45
Ballinlough Road (Knockrea)		13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:21	17:51	18:21	18:50	19:16	19:46
Bellair Junction		13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:22	17:52	18:22	18:51	19:17	19:47
Saint Finbarrs Hospital		13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:23	17:53	18:23	18:51	19:17	19:47
Southern Road		13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:24	17:54	18:24	18:52	19:18	19:48
Infirmary Road		13:53	14:23	14:53	15:23	15:53	16:23	16:53	17:25	17:55	18:25	18:53	19:18	19:48
South Terrace		13:55	14:25	14:55	15:25	15:55	16:25	16:55	17:26	17:56	18:26	18:53	19:19	19:49
Georges Quay		13:56	14:26	14:56	15:26	15:56	16:26	16:56	17:27	17:57	18:27	18:54	19:19	19:49
Grand Parade		13:58	14:28	14:58	15:28	15:58	16:28	16:58	17:29	17:59	18:29	18:55	19:21	19:51
St. Patrick St (Drawbridge St Jctn)		14:08	14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:08	18:38	19:03	19:27	19:57
Coburg Street		14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:10	18:40	19:05	19:28	19:58
South Mall (VHI House Stop A)		|	|	|	|	|	|	|	|	|	|	|	|	|
St. Patrick Street (Brown Thomas A)		|	|	|	|	|	|	|	|	|	|	|	|	|	|
Watercourse Road (Blackpool Pharmacy)		14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:14	18:44	19:09	19:30	20:00
Watercourse Road (Blackpool Health Ctr)		14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:45	19:10	19:31	20:01
Watercourse Road (Blackpool Church)		14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:46	18:16	18:46	19:10	19:31	20:01
Dublin Street (Dunnes)		14:17	14:47	15:17	15:47	16:17	16:47	17:17	17:47	18:17	18:47	19:11	19:32	20:02
Dublin Street (Ulster Bank)		14:17	14:47	15:17	15:47	16:17	16:47	17:17	17:48	18:18	18:48	19:12	19:33	20:03
Red Forge Road (Sunbeam)		14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:19	18:49	19:13	19:34	20:04
Mallow Road (Planet Complex)		14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:51	18:21	18:51	19:14	19:35	20:05
New Commons Road (Onslow Gardens Jctn)		14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:53	18:23	18:53	19:16	19:37	20:07
North Point (Opp Business Park)		14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:54	18:24	18:54	19:17	19:38	20:08
Sunset Place (Ring House)		14:24	14:54	15:24	15:54	16:24	16:54	17:24	17:55	18:25	18:55	19:18	19:39	20:09
Kileens (Opposite Overpass)		14:26	14:56	15:26	15:56	16:26	16:56	17:26	17:57	18:27	18:57	19:20	19:41	20:11
Clogheenmilcon		14:28	14:58	15:28	15:58	16:28	16:58	17:28	17:59	18:29	18:59	19:22	19:43	20:13
Blarney (Filling Station)		14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:01	18:31	19:01	19:24	19:46	20:16
Blarney Village (Woolen Mills)		14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:02	18:32	19:02	19:25	19:47	20:17
Blarney (St Anne's Road)		14:32	15:02	15:32	16:02	16:32	17:02	17:32	18:03	18:33	19:03	19:26	19:48	20:18
St. Annes Road (Pauls Cross)		14:34	15:04	15:34	16:04	16:34	17:04	17:34	18:05	18:35	19:05	19:28	19:50	20:20
St. Annes Hill (Willison Park)		14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05	19:28	19:50	20:20
St. Annes Hill (Riverview Estate)		14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:06	18:36	19:06	19:29	19:51	20:21
St. Annes Hill (Matanatha B&B)		14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:06	18:36	19:06	19:29	19:51	20:21
St. Annes Hill (Primrose Hill)		14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:07	18:37	19:07	19:30	19:52	20:22
Tower Village (Service Station)		14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:08	18:38	19:08	19:30	19:52	20:22
Tower Village (Tower Hall)		14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:09	18:39	19:09	19:32	19:53	20:23
Cloghroe (Fairways Terminus)	arr	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:13	18:43	19:13	19:35	19:56	20:26

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Mahon Point to Cloghroe via Blarney

Operating day		Saturday												
Jacobs Island (The Sanctuary)	dep	07:35	08:05	08:35	09:05	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	
Jacobs Island (Sanctuary Rd Inbound)		07:35	08:05	08:35	09:05	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	
Mahon Point Rd (Johnson & Perrott)		07:37	08:07	08:37	09:07	09:37	10:07	10:37	11:07	11:37	12:07	12:37	13:07	
Mahon Point Rd (Opp City Gate)		07:38	08:08	08:38	09:08	09:38	10:08	10:38	11:09	11:39	12:09	12:39	13:09	
Mahon Point Rd (Opp CSO Office)		07:39	08:09	08:39	09:09	09:39	10:09	10:39	11:10	11:40	12:09	12:39	13:09	
Skehard Road (Service Station)		07:39	08:09	08:39	09:09	09:39	10:09	10:39	11:11	11:41	12:10	12:40	13:10	
Skehard Road (Clover Lawn)		07:41	08:11	08:41	09:11	09:41	10:11	10:41	11:13	11:43	12:13	12:43	13:13	
Skehard Road (Old Cliffe)		07:41	08:11	08:41	09:11	09:41	10:11	10:41	11:14	11:44	12:14	12:44	13:14	
Skehard Road (Park Hill Jctn)		07:42	08:12	08:42	09:12	09:42	10:12	10:42	11:15	11:45	12:14	12:44	13:14	
Churchyard Lane (Silver Key Bar)		07:42	08:12	08:42	09:12	09:42	10:12	10:42	11:16	11:46	12:16	12:46	13:16	
Ballinlough Road (Carrigmore Park)		07:43	08:13	08:43	09:13	09:43	10:13	10:43	11:17	11:47	12:16	12:46	13:16	
Ballinlough Road (Opp Shrewsbury Estate)		07:43	08:13	08:43	09:13	09:43	10:13	10:43	11:17	11:47	12:17	12:47	13:17	
Ballinlough Road (Sundrive Park)		07:44	08:14	08:44	09:14	09:44	10:14	10:44	11:18	11:48	12:18	12:48	13:18	
Ballinlough Road (Opp Community Centre)		07:44	08:14	08:44	09:14	09:44	10:14	10:44	11:18	11:48	12:18	12:48	13:18	
Ballinlough Road (Pic Du Jer Park)		07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:19	11:49	12:19	12:49	13:19	
Ballinlough Road (Opp Our Lady Church)		07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:19	11:49	12:19	12:49	13:19	
Ballinlough Road (Knockrea)		07:46	08:16	08:46	09:16	09:46	10:16	10:46	11:20	11:50	12:20	12:50	13:20	
Bellair Junction		07:47	08:17	08:47	09:17	09:47	10:17	10:47	11:21	11:51	12:21	12:51	13:21	
Saint Finbarrs Hospital		07:47	08:17	08:47	09:17	09:47	10:17	10:47	11:21	11:51	12:21	12:51	13:21	
Southern Road		07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:22	11:52	12:22	12:52	13:22	
Infirmary Road		07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:23	11:53	12:23	12:53	13:23	
South Terrace		07:49	08:19	08:49	09:19	09:49	10:19	10:49	11:23	11:53	12:25	12:55	13:25	
Georges Quay		07:49	08:19	08:49	09:19	09:49	10:19	10:49	11:24	11:54	12:26	12:56	13:26	
Grand Parade		07:51	08:21	08:51	09:21	09:51	10:21	10:51	11:26	11:56	12:28	12:58	13:28	
St. Patrick St (Drawbridge St Jctn)	07:30	07:57	08:27	08:57	09:27	09:57	10:27	10:57	11:35	12:05	12:38	13:08	13:38	
Coburg Street	07:31	07:58	08:28	08:58	09:28	09:58	10:28	10:58	11:37	12:07	12:40	13:10	13:40	
South Mall (VHI House Stop A)	|	|	|	|	|	|	|	|	|	|	|	|	|	
St. Patrick Street (Brown Thomas A)	|	|	|	|	|	|	|	|	|	|	|	|	|	
Watercourse Road (Blackpool Pharmacy)	07:33	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:41	12:11	12:44	13:14	13:44	
Watercourse Road (Blackpool Health Ctr)	07:33	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:42	12:12	12:45	13:15	13:45	
Watercourse Road (Blackpool Church)	07:34	08:01	08:31	09:01	09:31	10:01	10:31	11:01	11:42	12:12	12:45	13:15	13:45	
Dublin Street (Dunnes)	07:35	08:02	08:32	09:02	09:32	10:02	10:32	11:02	11:43	12:13	12:47	13:17	13:47	
Dublin Street (Ulster Bank)	07:35	08:02	08:32	09:02	09:32	10:02	10:32	11:02	11:44	12:14	12:47	13:17	13:47	
Red Forge Road (Sunbeam)	07:37	08:04	08:34	09:04	09:34	10:04	10:34	11:04	11:45	12:15	12:49	13:19	13:49	
Mallow Road (Planet Complex)	07:37	08:04	08:34	09:04	09:34	10:04	10:34	11:04	11:47	12:17	12:50	13:20	13:50	
New Commons Road (Onslow Gardens Jctn)	07:39	08:06	08:36	09:06	09:36	10:06	10:36	11:06	11:49	12:19	12:52	13:22	13:52	
North Point (Opp Business Park)	07:41	08:08	08:38	09:08	09:38	10:08	10:38	11:08	11:50	12:20	12:53	13:23	13:53	
Sunset Place (Ring House)	07:42	08:09	08:39	09:09	09:39	10:09	10:39	11:09	11:51	12:21	12:54	13:24	13:54	
Kileens (Opposite Overpass)	07:43	08:10	08:40	09:10	09:40	10:10	10:40	11:10	11:53	12:23	12:56	13:26	13:56	
Clogheenmilcon	07:46	08:13	08:43	09:13	09:43	10:13	10:43	11:13	11:55	12:25	12:58	13:28	13:58	
Blarney (Filling Station)	07:48	08:15	08:45	09:15	09:45	10:15	10:45	11:15	11:57	12:27	13:00	13:30	14:00	
Blarney Village (Woolen Mills)	07:50	08:17	08:47	09:17	09:47	10:17	10:47	11:17	11:58	12:28	13:01	13:31	14:01	
Blarney (St Anne's Road)	07:50	08:17	08:47	09:17	09:47	10:17	10:47	11:17	11:59	12:29	13:02	13:32	14:02	
St. Annes Road (Pauls Cross)	07:52	08:19	08:49	09:19	09:49	10:19	10:49	11:19	12:01	12:31	13:04	13:34	14:04	
St. Annes Hill (Willison Park)	07:53	08:20	08:50	09:20	09:50	10:20	10:50	11:20	12:01	12:31	13:05	13:35	14:05	
St. Annes Hill (Riverview Estate)	07:53	08:20	08:50	09:20	09:50	10:20	10:50	11:20	12:02	12:32	13:05	13:35	14:05	
St. Annes Hill (Matanatha B&B)	07:54	08:21	08:51	09:21	09:51	10:21	10:51	11:21	12:02	12:32	13:06	13:36	14:06	
St. Annes Hill (Primrose Hill)	07:54	08:21	08:51	09:21	09:51	10:21	10:51	11:21	12:03	12:33	13:06	13:36	14:06	
Tower Village (Service Station)	07:55	08:22	08:52	09:22	09:52	10:22	10:52	11:22	12:03	12:33	13:07	13:37	14:07	
Tower Village (Tower Hall)	07:55	08:22	08:52	09:22	09:52	10:22	10:52	11:22	12:04	12:34	13:08	13:38	14:08	
Cloghroe (Fairways Terminus) arr	07:58	08:25	08:55	09:25	09:55	10:25	10:55	11:25	12:07	12:37	13:11	13:41	14:11	

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Mahon Point to Cloghroe via Blarney

Operating day		Sunday										
Jacobs Island (The Sanctuary)	dep	09:35	10:35	11:30	12:30	13:30	14:30	15:00	15:30	16:00	16:30	17:00
Jacobs Island (Sanctuary Rd Inbound)		09:35	10:35	11:30	12:30	13:30	14:30	15:00	15:30	16:00	16:30	17:00
Mahon Point Rd (Johnson & Perrott)		09:37	10:37	11:32	12:32	13:32	14:32	15:02	15:32	16:02	16:32	17:02
Mahon Point Rd (Opp City Gate)		09:38	10:38	11:33	12:33	13:34	14:34	15:04	15:34	16:04	16:34	17:04
Mahon Point Rd (Opp CSO Office)		09:39	10:39	11:33	12:33	13:35	14:35	15:05	15:35	16:05	16:35	17:05
Skehard Road (Service Station)		09:39	10:39	11:35	12:35	13:36	14:36	15:06	15:36	16:06	16:36	17:06
Skehard Road (Clover Lawn)		09:41	10:41	11:37	12:37	13:38	14:38	15:08	15:38	16:08	16:38	17:08
Skehard Road (Old Cliffe)		09:41	10:41	11:39	12:39	13:39	14:39	15:09	15:39	16:09	16:39	17:09
Skehard Road (Park Hill Jctn)		09:42	10:42	11:39	12:39	13:40	14:40	15:10	15:40	16:10	16:40	17:10
Churchyard Lane (Silver Key Bar)		09:42	10:42	11:41	12:41	13:41	14:41	15:11	15:41	16:11	16:41	17:11
Ballinlough Road (Carrigmore Park)		09:43	10:43	11:41	12:41	13:42	14:42	15:12	15:42	16:12	16:42	17:12
Ballinlough Road (Opp Shrewsbury Estate)		09:43	10:43	11:42	12:42	13:42	14:42	15:12	15:42	16:12	16:42	17:12
Ballinlough Road (Sundrive Park)		09:44	10:44	11:42	12:42	13:43	14:43	15:13	15:43	16:13	16:43	17:13
Ballinlough Road (Opp Community Centre)		09:44	10:44	11:43	12:43	13:43	14:43	15:13	15:43	16:13	16:43	17:13
Ballinlough Road (Pic Du Jer Park)		09:45	10:45	11:43	12:43	13:44	14:44	15:14	15:44	16:14	16:44	17:14
Ballinlough Road (Opp Our Lady Church)		09:45	10:45	11:44	12:44	13:44	14:44	15:14	15:44	16:14	16:44	17:14
Ballinlough Road (Knockrea)		09:46	10:46	11:44	12:44	13:45	14:45	15:15	15:45	16:15	16:45	17:15
Bellair Junction		09:47	10:47	11:46	12:46	13:46	14:46	15:16	15:46	16:16	16:46	17:16
Saint Finbarrs Hospital		09:47	10:47	11:47	12:47	13:46	14:46	15:16	15:46	16:16	16:46	17:16
Southern Road		09:48	10:48	11:48	12:48	13:47	14:47	15:17	15:47	16:17	16:47	17:17
Infirmary Road		09:48	10:48	11:49	12:49	13:48	14:48	15:18	15:48	16:18	16:48	17:18
South Terrace		09:49	10:49	11:49	12:49	13:48	14:48	15:18	15:48	16:18	16:48	17:18
Georges Quay		09:49	10:49	11:50	12:50	13:49	14:49	15:19	15:49	16:19	16:49	17:19
Grand Parade		09:51	10:51	11:52	12:52	13:51	14:51	|	15:51	|	16:51	|
St. Patrick St (Drawbridge St Jctn)		08:00	09:00	09:58	10:55	12:00	13:00	14:00	15:00	|	16:00	|	16:56	|
Coburg Street		08:01	09:01	09:59	10:56	12:02	13:02	14:02	15:02	|	16:02	|	16:58	|
South Mall (VHI House Stop A)		|	|	|	|	|	|	|	|	15:21	|	16:21	|	17:21
St. Patrick Street (Brown Thomas A)		|	|	|	|	|	|	|	|	15:24	|	16:24	|	17:24
Watercourse Road (Blackpool Pharmacy)		08:03	09:03	10:01	10:58	12:06	13:06	14:06	15:06		16:06		17:02	
Watercourse Road (Blackpool Health Ctr)		08:03	09:03	10:01	10:59	12:07	13:07	14:07	15:07		16:07		17:03	
Watercourse Road (Blackpool Church)		08:04	09:04	10:02	10:59	12:08	13:08	14:07	15:07		16:07		17:03	
Dublin Street (Dunnes)		08:05	09:05	10:03	11:00	12:09	13:09	14:08	15:08		16:08		17:04	
Dublin Street (Ulster Bank)		08:05	09:05	10:03	11:01	12:10	13:10	14:09	15:09		16:09		17:05	
Red Forge Road (Sunbeam)		08:07	09:07	10:05	11:02	12:11	13:11	14:10	15:10		16:10		17:06	
Mallow Road (Planet Complex)		08:07	09:07	10:05	11:03	12:12	13:12	14:12	15:12		16:12		17:08	
New Commons Road (Onslow Gardens Jctn)		08:09	09:09	10:07	11:05	12:14	13:14	14:14	15:14		16:14		17:10	
North Point (Opp Business Park)		08:11	09:11	10:09	11:06	12:16	13:16	14:15	15:15		16:15		17:11	
Sunset Place (Ring House)		08:12	09:12	10:10	11:07	12:17	13:17	14:16	15:16		16:16		17:12	
Kileens (Opposite Overpass)		08:13	09:13	10:11	11:09	12:19	13:19	14:18	15:18		16:18		17:14	
Clogheenmilcon		08:16	09:16	10:14	11:11	12:21	13:21	14:20	15:20		16:20		17:16	
Blarney (Filling Station)		08:18	09:18	10:16	11:14	12:23	13:23	14:22	15:22		16:22		17:18	
Blarney Village (Woolen Mills)		08:20	09:20	10:18	11:15	12:24	13:24	14:23	15:23		16:23		17:19	
Blarney (St Anne's Road)		08:20	09:20	10:18	11:16	12:25	13:25	14:24	15:24		16:24		17:20	
St. Annes Road (Pauls Cross)		08:22	09:22	10:20	11:18	12:27	13:27	14:26	15:26		16:26		17:22	
St. Annes Hill (Willison Park)		08:23	09:23	10:21	11:18	12:27	13:27	14:26	15:26		16:26		17:22	
St. Annes Hill (Riverview Estate)		08:23	09:23	10:21	11:19	12:28	13:28	14:27	15:27		16:27		17:23	
St. Annes Hill (Matanatha B&B)		08:24	09:24	10:22	11:19	12:28	13:28	14:27	15:27		16:27		17:23	
St. Annes Hill (Primrose Hill)		08:24	09:24	10:22	11:20	12:29	13:29	14:28	15:28		16:28		17:24	
Tower Village (Service Station)		08:25	09:25	10:23	11:20	12:30	13:30	14:28	15:28		16:28		17:24	
Tower Village (Tower Hall)		08:25	09:25	10:23	11:21	12:30	13:30	14:29	15:29		16:29		17:25	
Cloghroe (Fairways Terminus)	arr	08:28	09:28	10:26	11:24	12:33	13:33	14:32	15:32		16:32		17:28	

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Mahon Point to Cloghroe via Blarney

Operating day		Saturday							
Jacobs Island (The Sanctuary)	dep	20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Jacobs Island (Sanctuary Rd Inbound)		20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Mahon Point Rd (Johnson & Perrott)		20:07	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Mahon Point Rd (Opp City Gate)		20:08	20:38	21:08	21:38	22:08	22:38	23:08	23:38
Mahon Point Rd (Opp CSO Office)		20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Road (Service Station)		20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Road (Clover Lawn)		20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Skehard Road (Old Cliffe)		20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Skehard Road (Park Hill Jctn)		20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Churchyard Lane (Silver Key Bar)		20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Ballinlough Road (Carrigmore Park)		20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ballinlough Road (Opp Shrewsbury Estate)		20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ballinlough Road (Sundrive Park)		20:14	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Ballinlough Road (Opp Community Centre)		20:14	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Ballinlough Road (Pic Du Jer Park)		20:15	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Ballinlough Road (Opp Our Lady Church)		20:15	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Ballinlough Road (Knockrea)		20:16	20:46	21:16	21:46	22:16	22:46	23:16	23:46
Bellair Junction		20:17	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Saint Finbarrs Hospital		20:17	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Southern Road		20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
Infirmary Road		20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
South Terrace		20:19	20:49	21:19	21:49	22:19	22:49	23:19	23:49
Georges Quay		20:19	20:49	21:19	21:49	22:19	22:49	23:19	23:49
Grand Parade		20:21	20:51	21:21	21:51	22:21	22:51	23:21	23:51
St. Patrick St (Drawbridge St Jctn)		20:27	20:57	21:27	21:57	22:27	22:57	23:24	23:54
Coburg Street		20:28	20:58	21:28	21:58	22:28	22:58		
South Mall (VHI House Stop A)		|	|	|	|	|	|		
St. Patrick Street (Brown Thomas A)		|	|	|	|	|	|		
Watercourse Road (Blackpool Pharmacy)		20:30	21:00	21:30	22:00	22:30	23:00		
Watercourse Road (Blackpool Health Ctr)		20:31	21:00	21:30	22:00	22:30	23:00		
Watercourse Road (Blackpool Church)		20:31	21:01	21:31	22:01	22:31	23:01		
Dublin Street (Dunnes)		20:32	21:02	21:32	22:02	22:32	23:02		
Dublin Street (Ulster Bank)		20:33	21:02	21:32	22:02	22:32	23:02		
Red Forge Road (Sunbeam)		20:34	21:04	21:34	22:04	22:34	23:04		
Mallow Road (Planet Complex)		20:35	21:04	21:34	22:04	22:34	23:04		
New Commons Road (Onslow Gardens Jctn)		20:37	21:06	21:36	22:06	22:36	23:06		
North Point (Opp Business Park)		20:38	21:08	21:38	22:08	22:38	23:08		
Sunset Place (Ring House)		20:39	21:09	21:39	22:09	22:39	23:09		
Kileens (Opposite Overpass)		20:41	21:10	21:40	22:10	22:40	23:10		
Clogheenmilcon		20:43	21:13	21:43	22:13	22:43	23:13		
Blarney (Filling Station)		20:46	21:15	21:45	22:15	22:45	23:15		
Blarney Village (Woolen Mills)		20:47	21:17	21:47	22:17	22:47	23:17		
Blarney (St Anne's Road)		20:48	21:17	21:47	22:17	22:47	23:17		
St. Annes Road (Pauls Cross)		20:50	21:19	21:49	22:19	22:49	23:19		
St. Annes Hill (Willison Park)		20:50	21:20	21:50	22:20	22:50	23:20		
St. Annes Hill (Riverview Estate)		20:51	21:20	21:50	22:20	22:50	23:20		
St. Annes Hill (Matanatha B&B)		20:51	21:21	21:51	22:21	22:51	23:21		
St. Annes Hill (Primrose Hill)		20:52	21:21	21:51	22:21	22:51	23:21		
Tower Village (Service Station)		20:52	21:22	21:52	22:22	22:52	23:22		
Tower Village (Tower Hall)		20:53	21:22	21:52	22:22	22:52	23:22		
Cloghroe (Fairways Terminus)	arr	20:56	21:25	21:55	22:25	22:55	23:25		

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Cloghroe to Mahon Point via Blarney

Operating day		Monday - Friday										
Cloghroe (Coolflugh Terminus)	dep		06:45	07:15	07:40	08:10	08:40	09:15	09:45	10:15	10:45	11:15	11:45
Saint Philomena's Crescent			06:45	07:15	07:40	08:10	08:40	09:15	09:45	10:15	10:45	11:15	11:45
Tower Village (Shournagh Valley)			06:46	07:16	07:41	08:11	08:41	09:16	09:46	10:16	10:46	11:16	11:46
St. Annes Hill (Opp Primrose Hill)			06:47	07:17	07:42	08:12	08:42	09:17	09:47	10:17	10:47	11:17	11:47
Barters Wood			06:48	07:18	07:43	08:13	08:43	09:18	09:48	10:18	10:48	11:18	11:48
St. Annes Rd (Opp Willison Park)			06:49	07:19	07:43	08:13	08:44	09:19	09:49	10:19	10:49	11:19	11:49
St. Annes Rd (Opp Glenmaroon Hse)			06:49	07:19	07:44	08:14	08:44	09:19	09:49	10:19	10:49	11:19	11:49
St. Annes Rd (Blarney School)			06:51	07:21	07:45	08:15	08:46	09:21	09:51	10:21	10:51	11:21	11:51
Blarney Village (Church)			06:52	07:22	07:47	08:17	08:47	09:22	09:52	10:22	10:52	11:22	11:52
Blarney (Station Cross)			06:54	07:24	07:49	08:19	08:49	09:24	09:54	10:24	10:54	11:24	11:54
Clogheenmilcon			06:57	07:27	07:52	08:22	08:52	09:27	09:57	10:27	10:57	11:27	11:57
Kileens Village			06:59	07:29	07:55	08:25	08:54	09:29	09:59	10:29	10:59	11:30	12:00
Sunset Place (Hillside)			07:00	07:30	07:56	08:26	08:55	09:30	10:00	10:30	11:00	11:31	12:01
North Point (Underpass)			07:02	07:32	07:58	08:28	08:57	09:32	10:02	10:32	11:02	11:33	12:03
New Commons Road (North)			07:02	07:32	07:58	08:28	08:57	09:32	10:02	10:32	11:02	11:33	12:03
New Commons Road (Commons Hotel)			07:03	07:33	07:59	08:29	08:58	09:33	10:03	10:33	11:03	11:34	12:04
Mallow Road (Opp Marriot & Planet)			07:05	07:35	08:01	08:31	09:00	09:35	10:05	10:35	11:05	11:36	12:06
Mallow Road (Opp Sunbeam)			07:06	07:36	08:02	08:32	09:01	09:36	10:06	10:36	11:06	11:37	12:07
Dublin Street (Opp Dunnes)			07:08	07:38	08:05	08:35	09:03	09:38	10:08	10:38	11:08	11:40	12:10
Watercourse Road (Opp Blackpool Church)			07:09	07:39	08:06	08:36	09:04	09:39	10:09	10:39	11:09	11:41	12:11
Watercourse Rd (Opp Maxol Garage)			07:11	07:41	08:08	08:38	09:06	09:41	10:11	10:41	11:11	11:43	12:13
Watercourse Rd (Constellation Bar)			07:11	07:41	08:08	08:38	09:06	09:41	10:11	10:41	11:11	11:43	12:13
Coburg Street			07:13	07:43	08:10	08:40	09:08	09:43	10:13	10:43	11:13	11:45	12:15
St. Patrick Street (Brown Thomas A)		06:30	07:00	07:21	07:51	08:19	08:49	09:16	09:51	10:21	10:51	11:21	11:53	12:23
Princes Street		06:30	07:00	07:22	07:52	08:20	08:50	09:17	09:52	10:22	10:52	11:22	11:53	12:23
Grand Parade (Daybreak)		06:33	07:03	07:24	07:54	08:22	08:52	09:19	09:54	10:24	10:54	11:24	11:56	12:26
South Mall (VHI House Stop A)		06:35	07:05	07:27	07:57	08:25	08:55	09:22	09:57	10:27	10:57	11:27	11:58	12:28
Cork City Hall		06:37	07:07	07:28	07:58	08:26	08:56	09:23	09:58	10:28	10:58	11:28	12:00	12:30
Southern Road		06:39	07:09	07:31	08:01	08:29	08:59	09:26	10:01	10:31	11:01	11:31	12:02	12:32
Saint Finbarr's Hospital		06:40	07:10	07:32	08:02	08:30	09:00	09:27	10:02	10:32	11:02	11:32	12:03	12:33
Bellair Estate		06:41	07:11	07:33	08:03	08:31	09:01	09:28	10:03	10:33	11:03	11:33	12:04	12:34
Ballinlough Road (Opp Knockrea Lawn)		06:42	07:12	07:33	08:03	08:31	09:01	09:28	10:03	10:33	11:03	11:33	12:05	12:35
Ballinlough Road (Our Lady Church)		06:42	07:12	07:34	08:04	08:32	09:02	09:29	10:04	10:34	11:04	11:34	12:05	12:35
Ballinlough Road (Community Centre)		06:43	07:13	07:34	08:04	08:32	09:02	09:29	10:04	10:34	11:04	11:34	12:06	12:36
Ballinlough Road (Opp Sundrive Park)		06:43	07:13	07:35	08:05	08:33	09:03	09:30	10:05	10:35	11:05	11:35	12:07	12:37
Ballinlough Road (Shrewsbury Estate)		06:44	07:14	07:35	08:05	08:34	09:04	09:30	10:05	10:35	11:05	11:35	12:07	12:37
Ballinlough Road (Opp Carrigmore Park)		06:44	07:14	07:36	08:06	08:34	09:04	09:31	10:06	10:36	11:06	11:36	12:08	12:38
Churchyard Lane (Silverdale)		06:45	07:15	07:37	08:07	08:35	09:05	09:32	10:07	10:37	11:07	11:37	12:09	12:39
Skehard Road (Opposite Park Hill)		06:46	07:16	07:37	08:07	08:36	09:06	09:32	10:07	10:37	11:07	11:37	12:09	12:39
Skehard Road (Ashleigh Rise)		06:46	07:16	07:38	08:08	08:36	09:06	09:33	10:08	10:38	11:08	11:38	12:10	12:40
Skehard Road (Opp Clover Lawn)		06:47	07:17	07:38	08:08	08:37	09:07	09:33	10:08	10:38	11:08	11:38	12:10	12:40
Skehard Road (Clontarf Estate)		06:48	07:18	07:39	08:09	08:38	09:08	09:34	10:09	10:39	11:09	11:39	12:11	12:41
Skehard Road (Opp Service Station)		06:49	07:19	07:40	08:10	08:39	09:09	09:35	10:10	10:40	11:10	11:40	12:12	12:42
Mahon Point Rd (CSO Office)		06:50	07:20	07:42	08:12	08:40	09:10	09:37	10:12	10:42	11:12	11:42	12:14	12:44
Mahon Point Rd (City Gate)		06:51	07:21	07:42	08:12	08:41	09:11	09:37	10:12	10:42	11:12	11:42	12:14	12:44
Mahon Point Rd (Mahon Point Centre)		06:52	07:22	07:44	08:14	08:42	09:12	09:39	10:14	10:44	11:14	11:44	12:16	12:46
Jacobs Island (Sanctuary Rd Outbound)		06:54	07:24	07:45	08:15	08:44	09:14	09:40	10:15	10:45	11:15	11:45	12:17	12:47
Jacobs Island (The Sanctuary)	arr	06:57	07:27	07:49	08:19	08:47	09:17	09:44	10:19	10:49	11:19	11:49	12:21	12:51

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215 Mahon Point to Cloghroe via Blarney

Operating day		Sunday							
Jacobs Island (The Sanctuary)	dep	17:30	18:00	18:30	19:30	20:30	21:30	22:30	23:30
Jacobs Island (Sanctuary Rd Inbound)		17:30	18:00	18:30	19:30	20:30	21:30	22:30	23:30
Mahon Point Rd (Johnson & Perrott)		17:32	18:02	18:32	19:32	20:32	21:32	22:32	23:32
Mahon Point Rd (Opp City Gate)		17:34	18:03	18:34	19:33	20:33	21:33	22:33	23:33
Mahon Point Rd (Opp CSO Office)		17:35	18:04	18:35	19:34	20:34	21:34	22:34	23:34
Skehard Road (Service Station)		17:36	18:04	18:36	19:34	20:34	21:34	22:34	23:34
Skehard Road (Clover Lawn)		17:38	18:07	18:38	19:36	20:36	21:36	22:36	23:36
Skehard Road (Old Cliffe)		17:39	18:08	18:39	19:36	20:36	21:36	22:36	23:36
Skehard Road (Park Hill Jctn)		17:40	18:08	18:40	19:37	20:37	21:37	22:37	23:37
Churchyard Lane (Silver Key Bar)		17:41	18:10	18:41	19:37	20:37	21:37	22:37	23:37
Ballinlough Road (Carrigmore Park)		17:42	18:10	18:42	19:38	20:38	21:38	22:38	23:38
Ballinlough Road (Opp Shrewsbury Estate)		17:42	18:11	18:42	19:38	20:38	21:38	22:38	23:38
Ballinlough Road (Sundrive Park)		17:43	18:11	18:43	19:39	20:39	21:39	22:39	23:39
Ballinlough Road (Opp Community Centre)		17:43	18:12	18:43	19:39	20:39	21:39	22:39	23:39
Ballinlough Road (Pic Du Jer Park)		17:44	18:12	18:44	19:40	20:40	21:40	22:40	23:40
Ballinlough Road (Opp Our Lady Church)		17:44	18:13	18:44	19:40	20:40	21:40	22:40	23:40
Ballinlough Road (Knockrea)		17:45	18:13	18:45	19:41	20:41	21:41	22:41	23:41
Bellair Junction		17:46	18:14	18:46	19:42	20:42	21:42	22:42	23:42
Saint Finbarrs Hospital		17:46	18:15	18:46	19:42	20:42	21:42	22:42	23:42
Southern Road		17:47	18:15	18:47	19:43	20:43	21:43	22:43	23:43
Infirmary Road		17:48	18:16	18:48	19:43	20:43	21:43	22:43	23:43
South Terrace		17:48	18:18	18:48	19:44	20:44	21:44	22:44	23:44
Georges Quay		17:49	18:19	18:49	19:44	20:44	21:44	22:44	23:44
Grand Parade		17:51	|	18:51	19:46	20:46	21:46	22:46	23:46
St. Patrick St (Drawbridge St Jctn)		17:57	|	18:56	19:52	20:52	21:52	22:52	23:49
Coburg Street		17:59	|	18:58	19:53	20:53	21:53	22:53	
South Mall (VHI House Stop A)		|	18:21	|	|	|	|	|	
St. Patrick Street (Brown Thomas A)		|	18:24	|	|	|	|	|	
Watercourse Road (Blackpool Pharmacy)		18:03		19:02	19:55	20:55	21:55	22:55	
Watercourse Road (Blackpool Health Ctr)		18:04		19:03	19:55	20:55	21:55	22:55	
Watercourse Road (Blackpool Church)		18:04		19:03	19:56	20:56	21:56	22:56	
Dublin Street (Dunnes)		18:05		19:04	19:57	20:57	21:57	22:57	
Dublin Street (Ulster Bank)		18:06		19:05	19:57	20:57	21:57	22:57	
Red Forge Road (Sunbeam)		18:07		19:06	19:59	20:59	21:59	22:59	
Mallow Road (Planet Complex)		18:09		19:08	19:59	20:59	21:59	22:59	
New Commons Road (Onslow Gardens Jctn)		18:11		19:10	20:01	21:01	22:01	23:01	
North Point (Opp Business Park)		18:12		19:11	20:03	21:03	22:03	23:03	
Sunset Place (Ring House)		18:13		19:12	20:04	21:04	22:04	23:04	
Kileens (Opposite Overpass)		18:15		19:14	20:05	21:05	22:05	23:05	
Clogheenmilcon		18:17		19:16	20:08	21:08	22:08	23:08	
Blarney (Filling Station)		18:19		19:18	20:10	21:10	22:10	23:10	
Blarney Village (Woolen Mills)		18:20		19:19	20:12	21:12	22:12	23:12	
Blarney (St Anne's Road)		18:21		19:20	20:12	21:12	22:12	23:12	
St. Annes Road (Pauls Cross)		18:23		19:22	20:14	21:14	22:14	23:14	
St. Annes Hill (Willison Park)		18:23		19:22	20:15	21:15	22:15	23:15	
St. Annes Hill (Riverview Estate)		18:24		19:23	20:15	21:15	22:15	23:15	
St. Annes Hill (Matanatha B&B)		18:24		19:23	20:16	21:16	22:16	23:16	
St. Annes Hill (Primrose Hill)		18:25		19:24	20:16	21:16	22:16	23:16	
Tower Village (Service Station)		18:25		19:24	20:17	21:17	22:17	23:17	
Tower Village (Tower Hall)		18:26		19:25	20:17	21:17	22:17	23:17	
Cloghroe (Fairways Terminus)	arr	18:29		19:28	20:20	21:20	22:20	23:20	

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215 Cloghroe to Mahon Point via Blarney

Operating day		Monday - Friday										
Cloghroe (Coolflugh Terminus)	dep	19:00	19:30	20:00	20:15	20:40	21:05	21:35	22:05	22:35	23:05	23:30
Saint Philomena's Crescent		19:00	19:30	20:00	20:15	20:40	21:05	21:35	22:05	22:35	23:05	23:30
Tower Village (Shournagh Valley)		19:01	19:31	20:01	20:16	20:41	21:06	21:36	22:06	22:36	23:06	23:31
St. Annes Hill (Opp Primrose Hill)		19:02	19:31	20:01	20:16	20:41	21:06	21:36	22:06	22:36	23:06	23:31
Barters Wood		19:03	19:32	20:02	20:17	20:42	21:07	21:37	22:07	22:37	23:07	23:32
St. Annes Rd (Opp Willison Park)		19:04	19:32	20:02	20:17	20:42	21:07	21:37	22:07	22:37	23:07	23:32
St. Annes Rd (Opp Glenmaroon Hse)		19:04	19:33	20:03	20:18	20:43	21:08	21:38	22:08	22:38	23:08	23:33
St. Annes Rd (Blarney School)		19:06	19:34	20:04	20:19	20:44	21:09	21:39	22:09	22:39	23:09	23:34
Blarney Village (Church)		19:07	19:35	20:05	20:20	20:45	21:10	21:40	22:10	22:40	23:10	23:35
Blarney (Station Cross)		19:09	19:37	20:07	20:22	20:47	21:12	21:42	22:12	22:42	23:12	23:37
Clogheenmilcon		19:12	19:39	20:09	20:24	20:49	21:14	21:44	22:14	22:44	23:14	23:39
Kileens Village		19:14	19:41	20:11	20:26	20:51	21:16	21:46	22:16	22:46	23:16	23:41
Sunset Place (Hillside)		19:15	19:41	20:11	20:26	20:51	21:16	21:46	22:16	22:46	23:16	23:41
North Point (Underpass)		19:17	19:42	20:12	20:27	20:52	21:17	21:47	22:17	22:47	23:17	23:42
New Commons Road (North)		19:17	19:43	20:13	20:28	20:53	21:18	21:48	22:18	22:48	23:18	23:43
New Commons Road (Commons Hotel)		19:18	19:43	20:13	20:28	20:53	21:18	21:48	22:18	22:48	23:18	23:43
Mallow Road (Opp Marriot & Planet)		19:20	19:46	20:16	20:30	20:55	21:20	21:50	22:20	22:50	23:20	23:45
Mallow Road (Opp Sunbeam)		19:21	19:46	20:16	20:31	20:56	21:21	21:51	22:21	22:51	23:21	23:46
Dublin Street (Opp Dunnes)		19:23	19:48	20:18	20:32	20:57	21:22	21:52	22:22	22:52	23:22	23:47
Watercourse Road (Opp Blackpool Church)		19:24	19:48	20:18	20:33	20:58	21:23	21:53	22:23	22:53	23:23	23:48
Watercourse Rd (Opp Maxol Garage)		19:26	19:49	20:19	20:34	20:59	21:24	21:54	22:24	22:54	23:24	23:49
Watercourse Rd (Constellation Bar)		19:26	19:50	20:20	20:34	20:59	21:24	21:54	22:24	22:54	23:24	23:49
Coburg Street		19:28	19:52	20:22	20:36	21:01	21:26	21:56	22:26	22:56	23:26	23:51
St. Patrick Street (Brown Thomas A)		19:35	19:58	20:25	20:41	21:06	21:31	22:01	22:31	23:01	23:28	23:53
Princes Street		19:36	19:58		20:41	21:06	21:31	22:01	22:31	23:01		
Grand Parade (Daybreak)		19:38	20:00		20:43	21:08	21:33	22:03	22:33	23:03		
South Mall (VHI House Stop A)		19:41	20:02		20:44	21:09	21:34	22:04	22:34	23:04		
Cork City Hall		19:42	20:03		20:46	21:11	21:36	22:06	22:36	23:06		
Southern Road		19:45	20:06		20:47	21:12	21:37	22:07	22:37	23:07		
Saint Finbarr's Hospital		19:46	20:07		20:48	21:13	21:38	22:08	22:38	23:08		
Bellair Estate		19:47	20:08		20:49	21:14	21:39	22:09	22:39	23:09		
Ballinlough Road (Opp Knockrea Lawn)		19:47	20:08		20:49	21:14	21:39	22:09	22:39	23:09		
Ballinlough Road (Our Lady Church)		19:48	20:09		20:50	21:15	21:40	22:10	22:40	23:10		
Ballinlough Road (Community Centre)		19:48	20:09		20:50	21:15	21:40	22:10	22:40	23:10		
Ballinlough Road (Opp Sundrive Park)		19:49	20:10		20:51	21:16	21:41	22:11	22:41	23:11		
Ballinlough Road (Shrewsbury Estate)		19:49	20:10		20:51	21:16	21:41	22:11	22:41	23:11		
Ballinlough Road (Opp Carrigmore Park)		19:50	20:11		20:52	21:17	21:42	22:12	22:42	23:12		
Churchyard Lane (Silverdale)		19:51	20:12		20:52	21:17	21:42	22:12	22:42	23:12		
Skehard Road (Opposite Park Hill)		19:51	20:12		20:53	21:18	21:43	22:13	22:43	23:13		
Skehard Road (Ashleigh Rise)		19:52	20:13		20:53	21:18	21:43	22:13	22:43	23:13		
Skehard Road (Opp Clover Lawn)		19:52	20:13		20:54	21:19	21:44	22:14	22:44	23:14		
Skehard Road (Clontarf Estate)		19:53	20:14		20:55	21:20	21:45	22:15	22:45	23:15		
Skehard Road (Opp Service Station)		19:54	20:15		20:55	21:20	21:45	22:15	22:45	23:15		
Mahon Point Rd (CSO Office)		19:56	20:16		20:56	21:21	21:46	22:16	22:46	23:16		
Mahon Point Rd (City Gate)		19:56	20:16		20:57	21:22	21:47	22:17	22:47	23:17		
Mahon Point Rd (Mahon Point Centre)		19:58	20:18		20:58	21:23	21:48	22:18	22:48	23:18		
Jacobs Island (Sanctuary Rd Outbound)		19:59	20:19		21:00	21:25	21:50	22:20	22:50	23:20		
Jacobs Island (The Sanctuary)	arr	20:03	20:23		21:03	21:28	21:53	22:23	22:53	23:23		

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Cloghroe to Mahon Point via Blarney

Operating day		Monday - Friday										
Cloghroe (Coolflugh Terminus)	dep	12:15	12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:20	17:00	17:30	18:00	18:30
Saint Philomena's Crescent		12:15	12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:20	17:00	17:30	18:00	18:30
Tower Village (Shournagh Valley)		12:16	12:46	13:16	13:46	14:16	14:46	15:16	15:46	16:21	17:01	17:31	18:01	18:31
St. Annes Hill (Opp Primrose Hill)		12:17	12:47	13:17	13:47	14:17	14:47	15:17	15:47	16:22	17:02	17:32	18:02	18:32
Barters Wood		12:18	12:48	13:18	13:48	14:18	14:48	15:18	15:48	16:23	17:03	17:33	18:03	18:33
St. Annes Rd (Opp Willison Park)		12:18	12:48	13:18	13:48	14:18	14:48	15:18	15:48	16:23	17:03	17:33	18:04	18:34
St. Annes Rd (Opp Glenmaroon Hse)		12:19	12:49	13:19	13:49	14:19	14:49	15:19	15:49	16:24	17:04	17:34	18:04	18:34
St. Annes Rd (Blarney School)		12:20	12:50	13:20	13:50	14:20	14:50	15:20	15:50	16:25	17:05	17:35	18:06	18:36
Blarney Village (Church)		12:22	12:52	13:22	13:52	14:22	14:52	15:22	15:52	16:27	17:06	17:37	18:07	18:37
Blarney (Station Cross)		12:24	12:54	13:24	13:54	14:25	14:55	15:25	15:55	16:30	17:10	17:39	18:09	18:39
Clogheenmilcon		12:27	12:57	13:27	13:57	14:27	14:57	15:27	15:57	16:32	17:12	17:42	18:12	18:42
Kileens Village		12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:35	17:15	17:45	18:14	18:44
Sunset Place (Hillside)		12:31	13:01	13:31	14:01	14:30	15:00	15:30	16:00	16:35	17:16	17:46	18:15	18:45
North Point (Underpass)		12:33	13:03	13:33	14:03	14:32	15:02	15:32	16:02	16:37	17:17	17:48	18:17	18:47
New Commons Road (North)		12:33	13:03	13:33	14:03	14:33	15:03	15:33	16:03	16:38	17:18	17:48	18:17	18:47
New Commons Road (Commons Hotel)		12:34	13:04	13:34	14:04	14:33	15:03	15:33	16:03	16:38	17:19	17:49	18:18	18:48
Mallow Road (Opp Marriot & Planet)		12:36	13:06	13:36	14:06	14:36	15:06	15:36	16:06	16:41	17:22	17:51	18:20	18:50
Mallow Road (Opp Sunbeam)		12:37	13:07	13:37	14:07	14:37	15:07	15:37	16:07	16:42	17:23	17:52	18:21	18:51
Dublin Street (Opp Dunnes)		12:40	13:10	13:40	14:10	14:40	15:10	15:40	16:10	16:45	17:26	17:55	18:23	18:53
Watercourse Road (Opp Blackpool Church)		12:41	13:11	13:41	14:11	14:42	15:12	15:42	16:12	16:47	17:28	17:56	18:24	18:54
Watercourse Rd (Opp Maxol Garage)		12:43	13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:48	17:29	17:58	18:26	18:56
Watercourse Rd (Constellation Bar)		12:43	13:13	13:43	14:13	14:44	15:14	15:44	16:14	16:49	17:30	17:58	18:26	18:56
Coburg Street		12:45	13:15	13:45	14:15	14:46	15:16	15:46	16:16	16:51	17:32	18:00	18:28	18:58
St. Patrick Street (Brown Thomas A)		12:54	13:24	13:54	14:24	14:56	15:26	15:56	16:26	17:01	17:42	18:10	18:35	19:05
Princes Street		12:55	13:25	13:55	14:25	14:56	15:26	15:56	16:26	17:01	17:42	18:11	18:36	19:06
Grand Parade (Daybreak)		12:57	13:27	13:57	14:27	14:59	15:29	15:59	16:29	17:04	17:45	18:13	18:38	19:08
South Mall (VHI House Stop A)		13:00	13:30	14:00	14:30	15:02	15:32	16:02	16:32	17:07	17:48	18:16	18:41	19:11
Cork City Hall		13:01	13:31	14:01	14:31	15:03	15:33	16:03	16:33	17:08	17:49	18:17	18:42	19:12
Southern Road		13:04	13:34	14:04	14:34	15:06	15:36	16:06	16:36	17:11	17:52	18:20	18:45	19:15
Saint Finbarr's Hospital		13:05	13:35	14:05	14:35	15:07	15:37	16:07	16:37	17:12	17:53	18:21	18:46	19:16
Bellair Estate		13:06	13:36	14:06	14:36	15:08	15:38	16:08	16:38	17:13	17:54	18:22	18:47	19:17
Ballinlough Road (Opp Knockrea Lawn)		13:06	13:36	14:06	14:36	15:08	15:38	16:08	16:38	17:13	17:54	18:22	18:47	19:17
Ballinlough Road (Our Lady Church)		13:07	13:37	14:07	14:37	15:09	15:39	16:09	16:39	17:14	17:55	18:23	18:48	19:18
Ballinlough Road (Community Centre)		13:07	13:37	14:07	14:37	15:09	15:39	16:09	16:39	17:14	17:55	18:23	18:48	19:18
Ballinlough Road (Opp Sundrive Park)		13:08	13:38	14:08	14:38	15:10	15:40	16:10	16:40	17:15	17:56	18:24	18:49	19:19
Ballinlough Road (Shrewsbury Estate)		13:09	13:39	14:09	14:39	15:11	15:41	16:11	16:41	17:16	17:57	18:25	18:49	19:19
Ballinlough Road (Opp Carrigmore Park)		13:09	13:39	14:09	14:39	15:11	15:41	16:11	16:41	17:16	17:57	18:25	18:50	19:20
Churchyard Lane (Silverdale)		13:10	13:40	14:10	14:40	15:13	15:43	16:13	16:43	17:18	17:59	18:26	18:51	19:21
Skehard Road (Opposite Park Hill)		13:11	13:41	14:11	14:41	15:14	15:44	16:14	16:44	17:19	18:00	18:27	18:51	19:21
Skehard Road (Ashleigh Rise)		13:11	13:41	14:11	14:41	15:14	15:44	16:14	16:44	17:19	18:00	18:27	18:52	19:22
Skehard Road (Opp Clover Lawn)		13:12	13:42	14:12	14:42	15:15	15:45	16:15	16:45	17:20	18:01	18:28	18:52	19:22
Skehard Road (Clontarf Estate)		13:13	13:43	14:13	14:43	15:16	15:46	16:16	16:46	17:21	18:02	18:29	18:53	19:23
Skehard Road (Opp Service Station)		13:14	13:44	14:14	14:44	15:17	15:47	16:17	16:47	17:22	18:02	18:30	18:54	19:24
Mahon Point Rd (CSO Office)		13:15	13:45	14:15	14:45	15:18	15:48	16:18	16:48	17:23	18:03	18:31	18:56	19:26
Mahon Point Rd (City Gate)		13:16	13:46	14:16	14:46	15:19	15:49	16:19	16:49	17:24	18:04	18:32	18:56	19:26
Mahon Point Rd (Mahon Point Centre)		13:17	13:47	14:17	14:47	15:20	15:50	16:20	16:50	17:25	18:05	18:33	18:58	19:28
Jacobs Island (Sanctuary Rd Outbound)		13:19	13:49	14:19	14:49	15:22	15:52	16:22	16:52	17:27	18:07	18:35	18:59	19:29
Jacobs Island (The Sanctuary)	arr	13:22	13:52	14:22	14:52	15:25	15:55	16:25	16:55	17:30	18:10	18:38	19:03	19:33

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215 Cloghroe to Mahon Point via Blarney

Operating day		Saturday												
Cloghroe (Coolflugh Terminus)	dep	12:15	12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15
Saint Philomena's Crescent		12:15	12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15
Tower Village (Shournagh Valley)		12:16	12:46	13:16	13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:16	17:46	18:16
St. Annes Hill (Opp Primrose Hill)		12:17	12:47	13:17	13:47	14:17	14:47	15:17	15:47	16:17	16:47	17:17	17:46	18:16
Barters Wood		12:18	12:48	13:18	13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:47	18:17
St. Annes Rd (Opp Willison Park)		12:18	12:48	13:18	13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:18	17:47	18:17
St. Annes Rd (Opp Glenmaroon Hse)		12:19	12:49	13:19	13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:48	18:18
St. Annes Rd (Blarney School)		12:20	12:50	13:20	13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:49	18:19
Blarney Village (Church)		12:22	12:52	13:22	13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:50	18:20
Blarney (Station Cross)		12:24	12:54	13:24	13:54	14:24	14:54	15:24	15:54	16:24	16:54	17:24	17:52	18:22
Clogheenmilcon		12:27	12:57	13:27	13:57	14:27	14:57	15:27	15:57	16:27	16:57	17:27	17:54	18:24
Kileens Village		12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	17:56	18:26
Sunset Place (Hillside)		12:31	13:01	13:31	14:01	14:31	15:01	15:31	16:01	16:31	17:01	17:31	17:56	18:26
North Point (Underpass)		12:33	13:03	13:33	14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	17:57	18:27
New Commons Road (North)		12:33	13:03	13:33	14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	17:58	18:28
New Commons Road (Commons Hotel)		12:34	13:04	13:34	14:04	14:34	15:04	15:34	16:04	16:34	17:04	17:34	17:58	18:28
Mallow Road (Opp Marriot & Planet)		12:36	13:06	13:36	14:06	14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:01	18:31
Mallow Road (Opp Sunbeam)		12:37	13:07	13:37	14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:01	18:31
Dublin Street (Opp Dunnes)		12:40	13:10	13:40	14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:03	18:33
Watercourse Road (Opp Blackpool Church)		12:41	13:11	13:41	14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:03	18:33
Watercourse Rd (Opp Maxol Garage)		12:43	13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:04	18:34
Watercourse Rd (Constellation Bar)		12:43	13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:05	18:35
Coburg Street		12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:07	18:37
St. Patrick Street (Brown Thomas A)		12:54	13:24	13:54	14:24	14:54	15:24	15:54	16:24	16:54	17:24	17:54	18:13	18:43
Princes Street		12:55	13:25	13:55	14:25	14:55	15:25	15:55	16:25	16:55	17:25	17:55	18:14	18:44
Grand Parade (Daybreak)		12:57	13:27	13:57	14:27	14:57	15:27	15:57	16:27	16:57	17:27	17:57	18:16	18:46
South Mall (VHI House Stop A)		13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:17	18:47
Cork City Hall		13:01	13:31	14:01	14:31	15:01	15:31	16:01	16:31	17:01	17:31	18:01	18:19	18:49
Southern Road		13:04	13:34	14:04	14:34	15:04	15:34	16:04	16:34	17:04	17:34	18:04	18:21	18:51
Saint Finbarr's Hospital		13:05	13:35	14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	18:05	18:22	18:52
Bellair Estate		13:06	13:36	14:06	14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:06	18:23	18:53
Ballinlough Road (Opp Knockrea Lawn)		13:06	13:36	14:06	14:36	15:06	15:36	16:06	16:36	17:06	17:36	18:06	18:24	18:54
Ballinlough Road (Our Lady Church)		13:07	13:37	14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:07	18:24	18:54
Ballinlough Road (Community Centre)		13:07	13:37	14:07	14:37	15:07	15:37	16:07	16:37	17:07	17:37	18:07	18:25	18:55
Ballinlough Road (Opp Sundrive Park)		13:08	13:38	14:08	14:38	15:08	15:38	16:08	16:38	17:08	17:38	18:08	18:25	18:55
Ballinlough Road (Shrewsbury Estate)		13:09	13:39	14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:26	18:56
Ballinlough Road (Opp Carrigmore Park)		13:09	13:39	14:09	14:39	15:09	15:39	16:09	16:39	17:09	17:39	18:09	18:26	18:56
Churchyard Lane (Silverdale)		13:10	13:40	14:10	14:40	15:10	15:40	16:10	16:40	17:10	17:40	18:10	18:27	18:57
Skehard Road (Opposite Park Hill)		13:11	13:41	14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:28	18:58
Skehard Road (Ashleigh Rise)		13:11	13:41	14:11	14:41	15:11	15:41	16:11	16:41	17:11	17:41	18:11	18:28	18:58
Skehard Road (Opp Clover Lawn)		13:12	13:42	14:12	14:42	15:12	15:42	16:12	16:42	17:12	17:42	18:12	18:29	18:59
Skehard Road (Clontarf Estate)		13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:43	17:13	17:43	18:13	18:30	19:00
Skehard Road (Opp Service Station)		13:14	13:44	14:14	14:44	15:14	15:44	16:14	16:44	17:14	17:44	18:14	18:30	19:00
Mahon Point Rd (CSO Office)		13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	17:45	18:15	18:31	19:01
Mahon Point Rd (City Gate)		13:16	13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:16	17:46	18:16	18:32	19:02
Mahon Point Rd (Mahon Point Centre)		13:17	13:47	14:17	14:47	15:17	15:47	16:17	16:47	17:17	17:47	18:17	18:33	19:03
Jacobs Island (Sanctuary Rd Outbound)		13:19	13:49	14:19	14:49	15:19	15:49	16:19	16:49	17:19	17:49	18:19	18:35	19:05
Jacobs Island (The Sanctuary)	arr	13:22	13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22	18:38	19:08

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215 Cloghroe to Mahon Point via Blarney

Operating day		Saturday												
Cloghroe (Coolflugh Terminus)	dep				07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	11:45
Saint Philomena's Crescent					07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	11:45
Tower Village (Shournagh Valley)					07:31	08:01	08:31	09:01	09:31	10:01	10:31	11:01	11:31	11:46
St. Annes Hill (Opp Primrose Hill)					07:32	08:02	08:32	09:02	09:32	10:02	10:32	11:02	11:32	11:47
Barters Wood					07:32	08:02	08:32	09:02	09:32	10:03	10:33	11:03	11:33	11:48
St. Annes Rd (Opp Willison Park)					07:33	08:03	08:33	09:03	09:33	10:03	10:34	11:04	11:34	11:48
St. Annes Rd (Opp Glenmaroon Hse)					07:33	08:03	08:33	09:03	09:33	10:04	10:34	11:04	11:34	11:49
St. Annes Rd (Blarney School)					07:35	08:05	08:35	09:05	09:35	10:05	10:36	11:06	11:36	11:50
Blarney Village (Church)					07:36	08:06	08:36	09:06	09:36	10:07	10:37	11:07	11:37	11:52
Blarney (Station Cross)					07:37	08:07	08:37	09:07	09:37	10:09	10:39	11:09	11:39	11:54
Clogheenmilcon					07:40	08:10	08:40	09:10	09:40	10:12	10:42	11:12	11:42	11:57
Kileens Village					07:42	08:12	08:42	09:12	09:42	10:15	10:44	11:14	11:44	12:00
Sunset Place (Hillside)					07:43	08:13	08:43	09:13	09:43	10:16	10:45	11:15	11:45	12:01
North Point (Underpass)					07:44	08:14	08:44	09:14	09:44	10:18	10:47	11:17	11:47	12:03
New Commons Road (North)					07:45	08:15	08:45	09:15	09:45	10:18	10:47	11:17	11:47	12:03
New Commons Road (Commons Hotel)					07:45	08:15	08:45	09:15	09:45	10:19	10:48	11:18	11:48	12:04
Mallow Road (Opp Marriot & Planet)					07:48	08:18	08:48	09:18	09:48	10:21	10:50	11:20	11:50	12:06
Mallow Road (Opp Sunbeam)					07:48	08:18	08:48	09:18	09:48	10:22	10:51	11:21	11:51	12:07
Dublin Street (Opp Dunnes)					07:50	08:20	08:50	09:20	09:50	10:25	10:53	11:23	11:53	12:10
Watercourse Road (Opp Blackpool Church)					07:50	08:20	08:50	09:21	09:51	10:26	10:54	11:24	11:54	12:11
Watercourse Rd (Opp Maxol Garage)					07:52	08:22	08:52	09:22	09:52	10:28	10:56	11:26	11:56	12:13
Watercourse Rd (Constellation Bar)					07:52	08:22	08:52	09:23	09:53	10:28	10:56	11:26	11:56	12:13
Coburg Street					07:54	08:24	08:54	09:24	09:54	10:30	10:58	11:28	11:58	12:15
St. Patrick Street (Brown Thomas A)		06:30	07:00	07:30	08:02	08:32	09:02	09:31	10:01	10:37	11:06	11:36	12:06	12:24
Princes Street		06:30	07:00	07:30	08:03	08:33	09:03	09:31	10:01	10:38	11:07	11:37	12:07	12:25
Grand Parade (Daybreak)		06:32	07:02	07:32	08:04	08:34	09:04	09:33	10:03	10:40	11:09	11:39	12:09	12:27
South Mall (VHI House Stop A)		06:33	07:03	07:33	08:06	08:36	09:06	09:34	10:04	10:43	11:12	11:42	12:12	12:30
Cork City Hall		06:35	07:05	07:35	08:07	08:37	09:07	09:36	10:06	10:44	11:13	11:43	12:13	12:31
Southern Road		06:37	07:07	07:37	08:09	08:39	09:09	09:38	10:08	10:47	11:16	11:46	12:16	12:34
Saint Finbarr's Hospital		06:37	07:07	07:37	08:10	08:40	09:10	09:39	10:09	10:48	11:17	11:47	12:17	12:35
Bellair Estate		06:38	07:08	07:38	08:11	08:41	09:11	09:40	10:10	10:49	11:18	11:48	12:18	12:36
Ballinlough Road (Opp Knockrea Lawn)		06:39	07:09	07:39	08:11	08:41	09:11	09:40	10:10	10:49	11:18	11:48	12:18	12:36
Ballinlough Road (Our Lady Church)		06:39	07:09	07:39	08:12	08:42	09:12	09:41	10:11	10:50	11:19	11:49	12:19	12:37
Ballinlough Road (Community Centre)		06:40	07:10	07:40	08:12	08:42	09:12	09:41	10:11	10:50	11:19	11:49	12:19	12:37
Ballinlough Road (Opp Sundrive Park)		06:40	07:10	07:40	08:13	08:43	09:13	09:42	10:12	10:51	11:20	11:50	12:20	12:38
Ballinlough Road (Shrewsbury Estate)		06:41	07:11	07:41	08:13	08:43	09:13	09:42	10:12	10:52	11:20	11:50	12:20	12:39
Ballinlough Road (Opp Carrigmore Park)		06:41	07:11	07:41	08:14	08:44	09:14	09:43	10:13	10:52	11:21	11:51	12:21	12:39
Churchyard Lane (Silverdale)		06:42	07:12	07:42	08:14	08:44	09:14	09:43	10:13	10:53	11:22	11:52	12:22	12:40
Skehard Road (Opposite Park Hill)		06:42	07:12	07:42	08:15	08:45	09:15	09:44	10:14	10:54	11:22	11:52	12:22	12:41
Skehard Road (Ashleigh Rise)		06:43	07:13	07:43	08:15	08:45	09:15	09:44	10:14	10:54	11:23	11:53	12:23	12:41
Skehard Road (Opp Clover Lawn)		06:43	07:13	07:43	08:16	08:46	09:16	09:45	10:15	10:55	11:23	11:53	12:23	12:42
Skehard Road (Clontarf Estate)		06:44	07:14	07:44	08:17	08:47	09:17	09:46	10:16	10:56	11:24	11:54	12:24	12:43
Skehard Road (Opp Service Station)		06:45	07:15	07:45	08:17	08:47	09:17	09:46	10:16	10:57	11:25	11:55	12:25	12:44
Mahon Point Rd (CSO Office)		06:46	07:16	07:46	08:18	08:48	09:18	09:47	10:17	10:58	11:27	11:57	12:27	12:45
Mahon Point Rd (City Gate)		06:46	07:16	07:46	08:19	08:49	09:19	09:48	10:18	10:59	11:27	11:57	12:27	12:46
Mahon Point Rd (Mahon Point Centre)		06:48	07:18	07:48	08:20	08:50	09:20	09:49	10:19	11:00	11:29	11:59	12:29	12:47
Jacobs Island (Sanctuary Rd Outbound)		06:49	07:19	07:49	08:22	08:52	09:22	09:51	10:21	11:02	11:30	12:00	12:30	12:49
Jacobs Island (The Sanctuary)	arr	06:53	07:23	07:53	08:25	08:55	09:25	09:54	10:24	11:05	11:34	12:04	12:34	12:52

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Cloghroe to Mahon Point via Blarney

Operating day		Sunday												
Cloghroe (Coolflugh Terminus)	dep	08:30	09:30	10:30	11:30	12:15	13:15	13:45		14:45		15:45		16:45
Saint Philomena's Crescent		08:30	09:30	10:30	11:30	12:15	13:15	13:45		14:45		15:45		16:45
Tower Village (Shournagh Valley)		08:31	09:31	10:31	11:31	12:16	13:16	13:46		14:46		15:46		16:46
St. Annes Hill (Opp Primrose Hill)		08:32	09:32	10:32	11:32	12:17	13:17	13:47		14:47		15:47		16:47
Barters Wood		08:32	09:32	10:32	11:32	12:18	13:18	13:48		14:48		15:48		16:48
St. Annes Rd (Opp Willison Park)		08:33	09:33	10:33	11:33	12:19	13:19	13:48		14:48		15:48		16:49
St. Annes Rd (Opp Glenmaroon Hse)		08:33	09:33	10:33	11:33	12:19	13:19	13:49		14:49		15:49		16:49
St. Annes Rd (Blarney School)		08:35	09:35	10:35	11:35	12:21	13:21	13:50		14:50		15:50		16:51
Blarney Village (Church)		08:36	09:36	10:36	11:38	12:22	13:22	13:52		14:52		15:52		16:52
Blarney (Station Cross)		08:37	09:37	10:37	11:39	12:24	13:24	13:54		14:54		15:54		16:54
Clogheenmilcon		08:40	09:40	10:40	11:42	12:27	13:27	13:57		14:57		15:57		16:57
Kileens Village		08:42	09:42	10:42	11:44	12:30	13:30	14:00		15:00		16:00		16:59
Sunset Place (Hillside)		08:43	09:43	10:43	11:45	12:31	13:31	14:01		15:01		16:01		17:00
North Point (Underpass)		08:44	09:44	10:44	11:46	12:33	13:33	14:03		15:03		16:03		17:02
New Commons Road (North)		08:45	09:45	10:45	11:47	12:33	13:33	14:03		15:03		16:03		17:02
New Commons Road (Commons Hotel)		08:45	09:45	10:45	11:47	12:34	13:34	14:04		15:04		16:04		17:03
Mallow Road (Opp Marriot & Planet)		08:48	09:48	10:48	11:50	12:36	13:36	14:06		15:06		16:06		17:05
Mallow Road (Opp Sunbeam)		08:48	09:48	10:48	11:50	12:37	13:37	14:07		15:07		16:07		17:06
Dublin Street (Opp Dunnes)		08:50	09:50	10:50	11:52	12:40	13:40	14:10		15:10		16:10		17:08
Watercourse Road (Opp Blackpool Church)		08:50	09:50	10:51	11:53	12:41	13:41	14:11		15:11		16:11		17:09
Watercourse Rd (Opp Maxol Garage)		08:52	09:52	10:52	11:54	12:43	13:43	14:13		15:13		16:13		17:11
Watercourse Rd (Constellation Bar)		08:52	09:52	10:53	11:55	12:43	13:43	14:13		15:13		16:13		17:11
Coburg Street		08:54	09:54	10:54	11:56	12:45	13:45	14:15		15:15		16:15		17:13
St. Patrick Street (Brown Thomas A)		09:00	10:00	11:01	12:03	12:52	13:52	14:23	14:47	15:23	15:47	16:23	16:49	17:19
Princes Street		09:01	10:01	11:02	12:04	12:52	13:52	14:24	14:47	15:24	15:47	16:23	16:49	17:20
Grand Parade (Daybreak)		09:02	10:02	11:03	12:05	12:55	13:55	14:26	14:50	15:26	15:50	16:26	16:52	17:22
South Mall (VHI House Stop A)		09:04	10:04	11:05	12:07	12:57	13:57	14:29	14:52	15:29	15:52	16:28	16:54	17:25
Cork City Hall		09:05	10:05	11:06	12:08	12:59	13:59	14:30	14:54	15:30	15:54	16:30	16:56	17:26
Southern Road		09:07	10:07	11:08	12:10	13:01	14:01	14:33	14:56	15:33	15:56	16:32	16:58	17:29
Saint Finbarr's Hospital		09:08	10:08	11:09	12:11	13:02	14:02	14:34	14:57	15:34	15:57	16:33	16:59	17:30
Bellair Estate		09:09	10:09	11:10	12:12	13:03	14:03	14:35	14:58	15:35	15:58	16:34	17:00	17:31
Ballinlough Road (Opp Knockrea Lawn)		09:09	10:09	11:11	12:13	13:04	14:04	14:35	14:59	15:35	15:59	16:35	17:01	17:31
Ballinlough Road (Our Lady Church)		09:10	10:10	11:11	12:13	13:04	14:04	14:36	14:59	15:36	15:59	16:35	17:01	17:32
Ballinlough Road (Community Centre)		09:10	10:10	11:12	12:14	13:05	14:05	14:36	15:00	15:36	16:00	16:36	17:02	17:32
Ballinlough Road (Opp Sundrive Park)		09:11	10:11	11:12	12:14	13:06	14:06	14:37	15:01	15:37	16:01	16:37	17:03	17:33
Ballinlough Road (Shrewsbury Estate)		09:11	10:11	11:13	12:15	13:06	14:06	14:38	15:01	15:38	16:01	16:37	17:03	17:33
Ballinlough Road (Opp Carrigmore Park)		09:12	10:12	11:13	12:15	13:07	14:07	14:38	15:02	15:38	16:02	16:38	17:04	17:34
Churchyard Lane (Silverdale)		09:12	10:12	11:14	12:16	13:08	14:08	14:39	15:03	15:39	16:03	16:39	17:05	17:35
Skehard Road (Opposite Park Hill)		09:13	10:13	11:14	12:16	13:08	14:08	14:40	15:03	15:40	16:03	16:39	17:05	17:35
Skehard Road (Ashleigh Rise)		09:13	10:13	11:15	12:17	13:09	14:09	14:40	15:04	15:40	16:04	16:40	17:06	17:36
Skehard Road (Opp Clover Lawn)		09:14	10:14	11:15	12:17	13:09	14:09	14:41	15:04	15:41	16:04	16:40	17:06	17:36
Skehard Road (Clontarf Estate)		09:15	10:15	11:16	12:18	13:10	14:10	14:42	15:05	15:42	16:05	16:41	17:07	17:37
Skehard Road (Opp Service Station)		09:15	10:15	11:17	12:19	13:11	14:11	14:43	15:06	15:43	16:06	16:42	17:08	17:38
Mahon Point Rd (CSO Office)		09:16	10:16	11:18	12:20	13:13	14:13	14:44	15:08	15:44	16:08	16:44	17:10	17:40
Mahon Point Rd (City Gate)		09:17	10:17	11:18	12:20	13:13	14:13	14:45	15:08	15:45	16:08	16:44	17:10	17:40
Mahon Point Rd (Mahon Point Centre)		09:18	10:18	11:20	12:22	13:15	14:15	14:46	15:10	15:46	16:10	16:46	17:12	17:42
Jacobs Island (Sanctuary Rd Outbound)		09:20	10:20	11:21	12:23	13:16	14:16	14:48	15:11	15:48	16:11	16:47	17:13	17:43
Jacobs Island (The Sanctuary)	arr	09:23	10:23	11:24	12:26	13:20	14:20	14:51	15:14	15:51	16:14	16:50	17:16	17:47

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

215 Cloghroe to Mahon Point via Blarney

Operating day		Saturday										
Cloghroe (Coolflugh Terminus)	dep	18:45	19:15	19:45	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Saint Philomena's Crescent		18:45	19:15	19:45	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30
Tower Village (Shournagh Valley)		18:46	19:16	19:46	20:01	20:31	21:01	21:31	22:01	22:31	23:01	23:31
St. Annes Hill (Opp Primrose Hill)		18:46	19:16	19:46	20:01	20:31	21:01	21:31	22:01	22:31	23:01	23:31
Barters Wood		18:47	19:17	19:47	20:02	20:32	21:02	21:32	22:02	22:32	23:02	23:32
St. Annes Rd (Opp Willison Park)		18:47	19:17	19:47	20:02	20:32	21:02	21:32	22:02	22:32	23:02	23:32
St. Annes Rd (Opp Glenmaroon Hse)		18:48	19:18	19:48	20:03	20:33	21:03	21:33	22:03	22:33	23:03	23:33
St. Annes Rd (Blarney School)		18:49	19:19	19:49	20:04	20:34	21:04	21:34	22:04	22:34	23:04	23:34
Blarney Village (Church)		18:50	19:20	19:50	20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Blarney (Station Cross)		18:52	19:22	19:52	20:07	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Clogheenmilcon		18:54	19:24	19:54	20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Kileens Village		18:56	19:26	19:56	20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Sunset Place (Hillside)		18:56	19:26	19:56	20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
North Point (Underpass)		18:57	19:27	19:57	20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
New Commons Road (North)		18:58	19:28	19:58	20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
New Commons Road (Commons Hotel)		18:58	19:28	19:58	20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Mallow Road (Opp Marriot & Planet)		19:01	19:31	20:01	20:16	20:46	21:15	21:45	22:15	22:45	23:15	23:45
Mallow Road (Opp Sunbeam)		19:01	19:31	20:01	20:16	20:46	21:16	21:46	22:16	22:46	23:16	23:46
Dublin Street (Opp Dunnes)		19:03	19:33	20:03	20:18	20:48	21:17	21:47	22:17	22:47	23:17	23:47
Watercourse Road (Opp Blackpool Church)		19:03	19:33	20:03	20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
Watercourse Rd (Opp Maxol Garage)		19:04	19:34	20:04	20:19	20:49	21:19	21:49	22:19	22:49	23:19	23:49
Watercourse Rd (Constellation Bar)		19:05	19:35	20:05	20:20	20:50	21:19	21:49	22:19	22:49	23:19	23:49
Coburg Street		19:07	19:37	20:07	20:22	20:52	21:21	21:51	22:21	22:51	23:21	23:51
St. Patrick Street (Brown Thomas A)		19:13	19:43	20:10	20:27	20:57	21:26	21:56	22:26	22:56	23:23	23:53
Princes Street		19:14	19:44		20:28	20:58	21:26	21:56	22:26	22:56		
Grand Parade (Daybreak)		19:16	19:46		20:30	21:00	21:28	21:58	22:28	22:58		
South Mall (VHI House Stop A)		19:17	19:47		20:31	21:01	21:29	21:59	22:29	22:59		
Cork City Hall		19:19	19:49		20:33	21:03	21:31	22:01	22:31	23:01		
Southern Road		19:21	19:51		20:35	21:05	21:32	22:02	22:32	23:02		
Saint Finbarr's Hospital		19:22	19:52		20:36	21:06	21:33	22:03	22:33	23:03		
Bellair Estate		19:23	19:53		20:37	21:07	21:34	22:04	22:34	23:04		
Ballinlough Road (Opp Knockrea Lawn)		19:24	19:54		20:38	21:08	21:34	22:04	22:34	23:04		
Ballinlough Road (Our Lady Church)		19:24	19:54		20:38	21:08	21:35	22:05	22:35	23:05		
Ballinlough Road (Community Centre)		19:25	19:55		20:39	21:09	21:35	22:05	22:35	23:05		
Ballinlough Road (Opp Sundrive Park)		19:25	19:55		20:39	21:09	21:36	22:06	22:36	23:06		
Ballinlough Road (Shrewsbury Estate)		19:26	19:56		20:40	21:10	21:36	22:06	22:36	23:06		
Ballinlough Road (Opp Carrigmore Park)		19:26	19:56		20:40	21:10	21:37	22:07	22:37	23:07		
Churchyard Lane (Silverdale)		19:27	19:57		20:41	21:11	21:37	22:07	22:37	23:07		
Skehard Road (Opposite Park Hill)		19:28	19:58		20:42	21:12	21:38	22:08	22:38	23:08		
Skehard Road (Ashleigh Rise)		19:28	19:58		20:42	21:12	21:38	22:08	22:38	23:08		
Skehard Road (Opp Clover Lawn)		19:29	19:59		20:43	21:13	21:39	22:09	22:39	23:09		
Skehard Road (Clontarf Estate)		19:30	20:00		20:44	21:14	21:40	22:10	22:40	23:10		
Skehard Road (Opp Service Station)		19:30	20:00		20:44	21:14	21:40	22:10	22:40	23:10		
Mahon Point Rd (CSO Office)		19:31	20:01		20:45	21:15	21:41	22:11	22:41	23:11		
Mahon Point Rd (City Gate)		19:32	20:02		20:46	21:16	21:42	22:12	22:42	23:12		
Mahon Point Rd (Mahon Point Centre)		19:33	20:03		20:47	21:17	21:43	22:13	22:43	23:13		
Jacobs Island (Sanctuary Rd Outbound)		19:35	20:05		20:49	21:19	21:45	22:15	22:45	23:15		
Jacobs Island (The Sanctuary)	arr	19:38	20:08		20:52	21:22	21:48	22:18	22:48	23:18		

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Valid from 29.06.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

219 Ringmahon to MTU via Douglas and Togher

Operating day		Monday - Friday											
Ringmahon Road (Opp Garda Stn)	dep	07:00											
Ringmahon Road (Opp Holy Cross)		07:01											
Ringmahon Road (GAA Pitch)		07:02											
Ringmahon Road (Soccer Pitch)		07:03											
Ringmahon Road (Opp Cemetery)		07:03											
St Micheals Drive (Mahon Point SC)		07:05											
St Micheals Drive (City Gate)		07:07											
Mahon Point Rd (Opp City Gate)		07:08	07:55	09:05	10:05	11:05	12:05	13:05	14:05	15:05	16:05	17:10	18:05
Mahon Point Rd (Opp CSO Office)		07:09	07:56	09:06	10:06	11:06	12:06	13:06	14:06	15:06	16:06	17:11	18:06
Skehard Road (Service Station)		07:10	07:56	09:06	10:06	11:06	12:06	13:06	14:07	15:06	16:07	17:12	18:06
Skehard Road (Clover Lawn)		07:12	07:59	09:09	10:09	11:09	12:09	13:09	14:10	15:09	16:10	17:15	18:08
Skehard Road (Old Cliffe)		07:13	08:00	09:10	10:09	11:09	12:10	13:10	14:11	15:10	16:11	17:16	18:09
Skehard Road (Park Hill Jctn)		07:14	08:00	09:10	10:10	11:10	12:10	13:10	14:11	15:10	16:11	17:17	18:09
Well Road (Templenoe House)		07:15	08:02	09:12	10:11	11:11	12:12	13:12	14:13	15:12	16:13	17:19	18:11
Douglas Village East (Service Station)		07:18	08:05	09:15	10:14	11:14	12:15	13:15	14:17	15:15	16:17	17:22	18:14
Douglas (Church St Amenity Park)		07:19	08:06	09:16	10:15	11:15	12:17	13:17	14:18	15:17	16:18	17:24	18:15
Douglas Village West (Dino's)		07:20	08:08	09:17	10:16	11:16	12:18	13:18	14:19	15:18	16:19	17:25	18:16
South Douglas Road (Opp Community Sch)		07:21	08:10	09:18	10:17	11:17	12:20	13:20	14:20	15:20	16:20	17:26	18:17
South Douglas Road (Kay Black Florists)		07:22	08:11	09:19	10:17	11:18	12:20	13:20	14:21	15:20	16:21	17:27	18:18
South Douglas Road (Glencurrig)		07:22	08:11	09:19	10:18	11:18	12:21	13:21	14:21	15:21	16:21	17:27	18:18
South Douglas Road (Kevin O Leary Gar)		07:23	08:12	09:20	10:19	11:19	12:22	13:22	14:22	15:22	16:22	17:28	18:19
South Douglas Road (Opposite Loreto Park)		07:24	08:13	09:21	10:19	11:20	12:22	13:22	14:23	15:22	16:23	17:29	18:20
South Douglas Road (Cross Douglas Rd)		07:24	08:13	09:21	10:20	11:20	12:23	13:23	14:23	15:23	16:23	17:29	18:20
South Douglas Road (Sunview Court)		07:25	08:15	09:22	10:21	11:21	12:24	13:24	14:25	15:24	16:25	17:30	18:21
Curragh Road (Credit Union)		07:27	08:17	09:24	10:22	11:23	12:25	13:26	14:26	15:26	16:26	17:32	18:23
Curragh Rd (Opp Turners Cross Stad)		07:27	08:18	09:24	10:23	11:23	12:26	13:26	14:27	15:26	16:27	17:32	18:23
Pearse Road (A.I.B)		07:28	08:19	09:25	10:24	11:24	12:27	13:28	14:28	15:28	16:28	17:34	18:24
Pearse Road (Irish Independent Park)		07:29	08:19	09:26	10:24	11:25	12:27	13:28	14:29	15:28	16:29	17:34	18:25
Pearse Road (Connolly Road Junction)		07:29	08:20	09:26	10:25	11:26	12:28	13:29	14:30	15:29	16:30	17:35	18:26
Pearse Road (Clarkes Road Junction)		07:30	08:20	09:27	10:25	11:26	12:28	13:30	14:30	15:30	16:30	17:36	18:26
Pearse Road (Pearse Square Shops)		07:31	08:21	09:27	10:31	11:32	12:29	13:31	14:31	15:31	16:31	17:42	18:27
Earlwood Estate		07:33	08:23	09:29	10:35	11:35	12:31	13:33	14:33	15:33	16:33	17:44	18:29
Edward Walsh Road		07:34	08:24	09:30	10:36	11:36	12:32	13:34	14:34	15:34	16:34	17:45	18:30
Deanwood Avenue		07:35	08:25	09:31	10:37	11:37	12:33	13:36	14:36	15:36	16:36	17:47	18:32
Tramore Road Junction		07:35	08:26	09:32	10:37	11:37	12:34	13:37	14:37	15:37	16:37	17:47	18:32
Togher Church		07:36	08:27	09:33	10:38	11:38	12:35	13:38	14:38	15:38	16:38	17:49	18:33
Sandowne		07:37	08:28	09:34	10:39	11:39	12:36	13:39	14:39	15:39	16:39	17:50	18:34
Fernwood Close		07:38	08:29	09:34	10:40	11:40	12:37	13:40	14:40	15:40	16:40	17:50	18:35
Eagle Valley		07:39	08:30	09:36	10:41	11:41	12:38	13:41	14:41	15:41	16:41	17:52	18:36
Harley Court		07:40	08:31	09:37	10:41	11:41	12:39	13:42	14:42	15:42	16:42	17:53	18:37
Wilton Shopping Centre East		07:43	08:34	09:40	10:44	11:44	12:42	13:45	14:45	15:45	16:45	17:56	18:40
Bishopstown Road (Wilton Centre)		07:44	08:36	09:41	10:46	11:46	12:44	13:47	14:47	15:47	16:47	17:57	18:41
Bishopstown Road (Opp Garda Station)		07:46	08:37	09:42	10:47	11:47	12:46	13:49	14:49	15:49	16:49	18:00	18:43
Curraheen Road (Opp TSB Bank)		07:46	08:38	09:43	10:48	11:48	12:47	13:50	14:50	15:50	16:50	18:01	18:44
Curraheen Road (The Outpost)		07:47	08:39	09:44	10:49	11:49	12:48	13:51	14:51	15:51	16:51	18:02	18:45
Curraheen Road (opp Deanshall)		07:47	08:40	09:44	10:49	11:50	12:48	13:52	14:52	15:52	16:52	18:02	18:45
Melbourne Rd (Glencairn Park)		07:49	08:42	09:45	10:50	11:51	12:50	13:54	14:53	15:54	16:53	18:03	18:46
MTU	arr	07:51	08:45	09:48	10:54	11:53	12:52	13:56	14:57	15:56	16:57	18:05	18:48

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215 Cloghroe to Mahon Point via Blarney

Operating day		Sunday						
Cloghroe (Coolflugh Terminus)	dep	17:30	18:30	19:30	20:30	21:30	22:30	23:30
Saint Philomena's Crescent		17:30	18:30	19:30	20:30	21:30	22:30	23:30
Tower Village (Shournagh Valley)		17:31	18:31	19:31	20:31	21:31	22:31	23:31
St. Annes Hill (Opp Primrose Hill)		17:32	18:31	19:31	20:31	21:31	22:31	23:31
Barters Wood		17:32	18:32	19:32	20:32	21:32	22:32	23:32
St. Annes Rd (Opp Willison Park)		17:33	18:32	19:32	20:32	21:32	22:32	23:32
St. Annes Rd (Opp Glenmaroon Hse)		17:33	18:33	19:33	20:33	21:33	22:33	23:33
St. Annes Rd (Blarney School)		17:35	18:34	19:34	20:34	21:34	22:34	23:34
Blarney Village (Church)		17:36	18:35	19:35	20:35	21:35	22:35	23:35
Blarney (Station Cross)		17:37	18:37	19:37	20:37	21:37	22:37	23:37
Clogheenmilcon		17:40	18:39	19:39	20:39	21:39	22:39	23:39
Kileens Village		17:42	18:41	19:41	20:41	21:41	22:41	23:41
Sunset Place (Hillside)		17:43	18:41	19:41	20:41	21:41	22:41	23:41
North Point (Underpass)		17:44	18:42	19:42	20:42	21:42	22:42	23:42
New Commons Road (North)		17:45	18:43	19:43	20:43	21:43	22:43	23:43
New Commons Road (Commons Hotel)		17:45	18:43	19:43	20:43	21:43	22:43	23:43
Mallow Road (Opp Marriot & Planet)		17:47	18:46	19:46	20:46	21:45	22:45	23:45
Mallow Road (Opp Sunbeam)		17:48	18:46	19:46	20:46	21:46	22:46	23:46
Dublin Street (Opp Dunnes)		17:50	18:48	19:48	20:48	21:47	22:47	23:47
Watercourse Road (Opp Blackpool Church)		17:51	18:48	19:48	20:48	21:48	22:48	23:48
Watercourse Rd (Opp Maxol Garage)		17:52	18:49	19:49	20:49	21:49	22:49	23:49
Watercourse Rd (Constellation Bar)		17:53	18:50	19:50	20:50	21:49	22:49	23:49
Coburg Street		17:54	18:52	19:52	20:52	21:51	22:51	23:51
St. Patrick Street (Brown Thomas A)		18:02	18:57	19:57	20:57	21:55	22:55	23:53
Princes Street		18:02	18:58	19:58	20:58	21:56	22:56	
Grand Parade (Daybreak)		18:04	19:00	20:00	21:00	21:57	22:57	
South Mall (VHI House Stop A)		18:06	19:01	20:01	21:01	21:59	22:59	
Cork City Hall		18:08	19:03	20:03	21:03	22:00	23:00	
Southern Road		18:10	19:05	20:05	21:05	22:02	23:02	
Saint Finbarr's Hospital		18:11	19:06	20:06	21:06	22:02	23:02	
Bellair Estate		18:12	19:07	20:07	21:07	22:03	23:03	
Ballinlough Road (Opp Knockrea Lawn)		18:13	19:08	20:08	21:08	22:04	23:04	
Ballinlough Road (Our Lady Church)		18:13	19:08	20:08	21:08	22:04	23:04	
Ballinlough Road (Community Centre)		18:14	19:09	20:09	21:09	22:05	23:05	
Ballinlough Road (Opp Sundrive Park)		18:14	19:09	20:09	21:09	22:05	23:05	
Ballinlough Road (Shrewsbury Estate)		18:15	19:10	20:10	21:10	22:06	23:06	
Ballinlough Road (Opp Carrigmore Park)		18:15	19:10	20:10	21:10	22:06	23:06	
Churchyard Lane (Silverdale)		18:16	19:11	20:11	21:11	22:07	23:07	
Skehard Road (Opposite Park Hill)		18:16	19:12	20:12	21:12	22:07	23:07	
Skehard Road (Ashleigh Rise)		18:17	19:12	20:12	21:12	22:08	23:08	
Skehard Road (Opp Clover Lawn)		18:17	19:13	20:13	21:13	22:08	23:08	
Skehard Road (Clontarf Estate)		18:18	19:14	20:14	21:14	22:09	23:09	
Skehard Road (Opp Service Station)		18:19	19:14	20:14	21:14	22:10	23:10	
Mahon Point Rd (CSO Office)		18:20	19:15	20:15	21:15	22:11	23:11	
Mahon Point Rd (City Gate)		18:20	19:16	20:16	21:16	22:11	23:11	
Mahon Point Rd (Mahon Point Centre)		18:22	19:17	20:17	21:17	22:13	23:13	
Jacobs Island (Sanctuary Rd Outbound)		18:23	19:19	20:19	21:19	22:14	23:14	
Jacobs Island (The Sanctuary)	arr	18:26	19:22	20:22	21:22	22:18	23:18	

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Ireland

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MTU to Ringmahon via Togher and Douglas

Operating day		Monday - Friday												
MTU	dep	07:00	07:55	09:05	10:05	11:05	12:05	13:00	14:00	15:05	16:00	17:05	18:10	19:00
Rossa Avenue (Allendale Avenue Jctn)		07:01	07:56	09:06	10:06	11:06	12:06	13:01	14:01	15:06	16:01	17:06	18:11	19:01
Curraheen Road (Spioraid Naoimh)		07:02	07:57	09:07	10:07	11:07	12:07	13:02	14:02	15:07	16:02	17:07	18:12	19:02
Curraheen Road (Deanshall)		07:02	07:58	09:07	10:07	11:07	12:07	13:02	14:03	15:08	16:03	17:08	18:12	19:02
Curraheen Road (Westgate Rd Jctn)		07:03	07:59	09:08	10:08	11:08	12:08	13:03	14:03	15:09	16:04	17:09	18:13	19:03
Curraheen Road (Firgrove Gardens)		07:04	08:00	09:09	10:09	11:09	12:09	13:04	14:04	15:10	16:05	17:10	18:13	19:03
CUH (Bishopstown Rd)		07:07	08:04	09:12	10:12	11:12	12:13	13:08	14:08	15:14	16:10	17:14	18:17	19:07
Wilton Shopping Centre		07:08	08:05	09:13	10:13	11:14	12:14	13:09	14:10	15:16	16:12	17:16	18:18	19:08
Harley Court		07:11	08:08	09:15	10:16	11:17	12:18	13:13	14:13	15:20	16:16	17:20	18:22	19:12
Eagle Valley		07:13	08:10	09:17	10:17	11:18	12:19	13:14	14:15	15:22	16:18	17:21	18:23	19:13
Fernwood Estate		07:14	08:11	09:18	10:18	11:19	12:20	13:15	14:16	15:23	16:19	17:22	18:24	19:14
Sandowne		07:15	08:13	09:19	10:19	11:20	12:21	13:16	14:16	15:24	16:20	17:23	18:25	19:15
Togher Church		07:17	08:14	09:20	10:20	11:21	12:22	13:17	14:18	15:25	16:21	17:24	18:26	19:16
Deanrock		07:18	08:16	09:22	10:21	11:22	12:23	13:18	14:19	15:27	16:23	17:25	18:27	19:17
Deanwood Avenue		07:19	08:17	09:23	10:22	11:23	12:24	13:19	14:20	15:27	16:24	17:26	18:27	19:17
Edward Walsh road		07:21	08:18	09:24	10:24	11:25	12:26	13:20	14:21	15:29	16:25	17:27	18:28	19:18
Earlwood Estate		07:22	08:19	09:25	10:25	11:26	12:27	13:21	14:22	15:30	16:26	17:28	18:29	19:19
Pearse Road (Ballyphehane)		07:24	08:21	09:27	10:27	11:28	12:29	13:27	14:28	15:36	16:29	17:30	18:31	19:21
Pearse Road (Friars Walk Junction)		07:25	08:22	09:28	10:28	11:29	12:30	13:29	14:30	15:37	16:30	17:31	18:32	19:22
Pearse Road (Kent Road Junction)		07:25	08:23	09:29	10:29	11:30	12:31	13:30	14:31	15:38	16:31	17:32	18:33	19:23
Pearse Road (O Growney Crescent)		07:26	08:24	09:30	10:29	11:30	12:32	13:30	14:31	15:38	16:32	17:33	18:33	19:23
Curragh Road Junction		07:27	08:25	09:31	10:30	11:31	12:33	13:31	14:32	15:40	16:33	17:34	18:34	19:24
Curragh Rd (Turners Cross Stadium)		07:27	08:26	09:32	10:31	11:32	12:33	13:32	14:33	15:40	16:34	17:35	18:35	19:25
South Douglas Road (Skabeg)		07:29	08:30	09:34	10:33	11:34	12:35	13:34	14:35	15:43	16:36	17:37	18:37	19:26
South Douglas Road (Opp Heatherton)		07:30	08:31	09:35	10:34	11:35	12:36	13:35	14:36	15:44	16:38	17:39	18:38	19:27
South Douglas Road (Loreto Park)		07:31	08:32	09:35	10:34	11:35	12:37	13:35	14:36	15:45	16:38	17:39	18:38	19:28
South Douglas Road (Rathmore Lawn)		07:32	08:33	09:36	10:35	11:36	12:38	13:36	14:37	15:46	16:39	17:40	18:39	19:29
South Douglas Road (Dunmahon)		07:32	08:33	09:37	10:36	11:37	12:38	13:37	14:38	15:47	16:40	17:41	18:40	19:29
Douglas Road (Douglas Community School)		07:33	08:34	09:38	10:37	11:38	12:39	13:38	14:39	15:49	16:42	17:42	18:41	19:30
Douglas Village West (Opp Dinos)		07:34	08:36	09:39	10:38	11:39	12:41	13:39	14:40	15:51	16:44	17:43	18:42	19:31
Church Street (Shopping Ctr South)		07:34	08:37	09:40	10:38	11:39	12:41	13:40	14:41	15:51	16:44	17:44	18:43	19:32
Douglas Shopping Centre		07:36	08:41	09:42	10:40	11:41	12:43	13:42	14:43	15:53	16:46	17:46	18:45	19:33
Well Rd (Entrance to Ardmahon Estate)		07:39	08:45	09:45	10:42	11:44	12:46	13:46	14:46	15:58	16:50	17:50	18:48	19:36
Well Rd (Before Lovets)		07:40	08:45	09:45	10:43	11:44	12:47	13:46	14:47	15:58	16:51	17:50	18:48	19:36
Skehard Road (Opposite Park Hill)		07:41	08:47	09:47	10:44	11:46	12:49	13:48	14:48	16:00	16:53	17:52	18:50	19:38
Skehard Road (Ashleigh Rise)		07:42	08:48	09:48	10:45	11:46	12:49	13:48	14:49	16:00	16:53	17:52	18:50	19:38
Skehard Road (Opp Clover Lawn)		07:42	08:48	09:48	10:45	11:47	12:50	13:49	14:50	16:01	16:54	17:53	18:51	19:39
Skehard Road (Clontarf Estate)		07:43	08:49	09:49	10:46	11:48	12:51	13:50	14:51	16:02	16:55	17:54	18:52	19:39
Skehard Road (Opp Service Station)		07:44	08:50	09:50	10:47	11:49	12:52	13:51	14:52	16:03	16:56	17:55	18:53	19:40
Skehard Road (Opp CSO Office)		07:45	08:51	09:51	10:48	11:50	12:53	13:52	14:53	16:04	16:57	17:56	18:54	19:41
Ringmahon Road (Meadow Grove Est)		07:46	08:52	09:52	10:49	11:51	12:54	13:53	14:54	16:05	16:58	17:57	18:55	19:42
Ringmahon Road (Opp Garda Stn)		07:46	08:53	09:53	10:49	11:51	12:54	13:53	14:54	16:06	16:59	17:58	18:55	19:43
Ringmahon Road (Opp Holy Cross)		07:48	08:53	09:53	10:50	11:52	12:55	13:54	14:55	16:07	16:59	17:58	18:56	19:43
Ringmahon Road (GAA Pitch)		07:49	08:54	09:54	10:50	11:53	12:56	13:55	14:56	16:08	17:00	17:59	18:57	19:44
Ringmahon Road (Soccer Pitch)		07:49	08:55	09:55	10:51	11:53	12:57	13:56	14:57	16:08	17:01	18:00	18:57	19:44
Ringmahon Road (Opp Cemetery)		07:50	08:55	09:55	10:51	11:54	12:57	13:56	14:57	16:09	17:01	18:00	18:58	19:45
St Micheals Drive (Mahon Point SC)		07:51	08:57	09:57	10:53	11:55	12:59	13:58	14:59	16:10	17:03	18:02	18:59	19:46
St Micheals Drive (City Gate)		07:52	08:57	09:57	10:53	11:56	12:59	13:58	14:59	16:11	17:04	18:02	19:00	19:47
Mahon Point Rd (Opp City Gate)	arr	07:54	09:00	10:00	10:57	12:00	13:01	14:01	15:01	16:12	17:06	18:04	19:02	19:49

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BESSBOROUGH, CORK

APPENDIX 6

Material Assets – Services, Infrastructure & Utilities

VOLUME III | APPENDICES

BESSBOROUGH, CORK

APPENDIX 6

Material Assets – Services, Infrastructure & Utilities

- Appendix 6-1 – **Uisce Éireann** Confirmation of Feasibility – Phase 1 ‘The **Farm**’
- Appendix 6-2 – Uisce Éireann Confirmation of Feasibility – Phase 2 ‘The Meadows'
- Appendix 6-3 – Uisce Éireann Web Map of Wastewater Treatment Plants and Pumping Stations
- Appendix 6-4 – ESB Networks – Information Sheets 1 and 2
- Appendix 6-5 – Gas Networks Ireland – Information
- Appendix 6-6 – Eir Maps – Information Sheets 1 and 2
- Appendix 6-7 - External Lighting Analysis Report by DKPartnership
- Appendix 6-8 - Proposed Drainage and Water Service Layout Drawings for Phase 1 ‘The Farm’

- Appendix 6-1 – **Uisce Éireann** Confirmation of Feasibility – Phase 1 ‘The Farm’

CONFIRMATION OF FEASIBILITY

Ray Sheehan
EGIS
3 Eastgate Road
Eastgate Business Park
Little Island
Cork
T45KH74

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

4 November 2025

Our Ref: CDS25006213 Pre-Connection Enquiry
The Farm, Bessborough, Blackrock, Cork City

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 150 unit(s) at The Farm, Bessborough, Blackrock, Cork City, (the **Development)**.

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection**
  - Feasible without infrastructure upgrade by Uisce Éireann
  - The proposed 150 mm diameter connection point shall be to the public water network on the existing 300 mm water main to the North of the development. The confirmation of feasibility does not extend to your fire flow requirements. Uisce Éireann cannot guarantee that the flow rates and residual pressures will meet the requirements of the Fire Authority.
- **Wastewater Connection**
  - Feasible without infrastructure upgrade by Uisce Éireann
  - The Connection point for the proposed development shall be to, or as near as possible to the inlet manhole to the Existing Bessboro Wastewater Pump Station. It will be the developer's responsibility to ensure that any relevant permission is in place to lay any sewer infrastructure in private lands. The Developer will be required to provide all relevant wayleaves.

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Uisce Éireann is a designated activity company, limited by shares.
Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363.

UE / LH / OP448 / 0323

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Uisce Éireann's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann's network(s). This is not a connection offer and capacity in Uisce Éireann's network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit **www.water.ie/connections, email** newconnections@water.ie or contact 1800 278 278**.**

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

Section A - What is important to know?

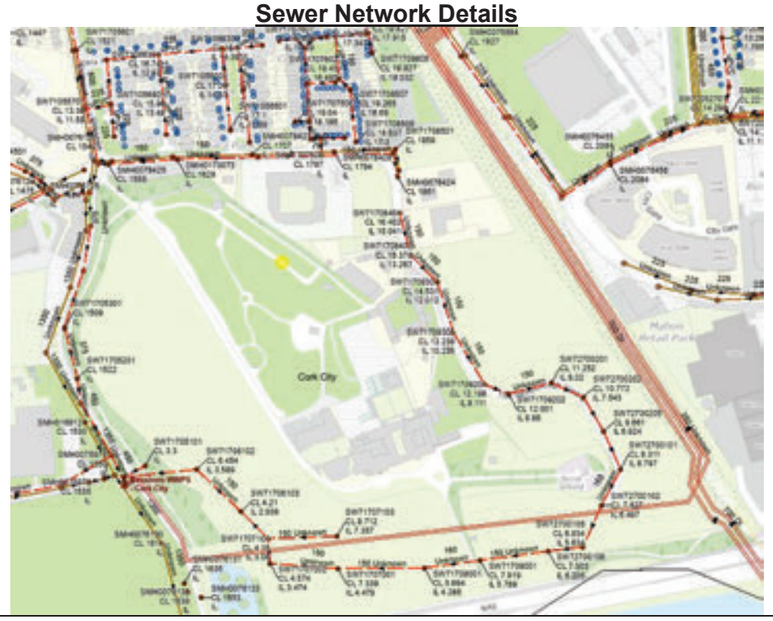
What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Uisce Éireann's network(s). • Before the Development can connect to Uisce Éireann's network(s), you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Uisce Éireann connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Uisce Éireann's network(s), including works in the public space, must be carried out by Uisce Éireann*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • **What to do?** - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • **What to do?** - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Uisce Éireann's network(s)?	• Requests for maps showing Uisce Éireann's network(s) can be submitted to: datarequests@water.ie
What are the design requirements for the connection(s)?	• The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with ***the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

Section B – Details of Uisce Éireann's Network(s)

The map included below outlines the current Uisce Éireann infrastructure adjacent the Development: To access Uisce Éireann Maps email datarequests@water.ie

Water Network Details

Sewer Network Details



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Note: The information provided on the included maps as to the position of Uisce Éireann's underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Uisce Éireann.

Whilst every care has been taken in respect of the information on Uisce Éireann's network(s), Uisce Éireann assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Uisce Éireann's underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Uisce Éireann's underground network(s) 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.

- Appendix 6-2 – Uisce Éireann Confirmation of Feasibility – Phase 2 ‘The Meadows'

CONFIRMATION OF FEASIBILITY

Ray Sheehan
EGIS
3 Eastgate Road, Eastgate Business Park
Little Island, Cork
T45KH74

4 November 2025

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

Our Ref: CDS25006228 Pre-Connection Enquiry
The Meadows, Bessborough, Blackrock, Cork City

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 300 unit(s) at The Meadows, Bessborough, Blackrock, Cork City, (the **Development)**.

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible Subject to upgrades

  Water Network Upgrades are required in order to facilitate this development. An upsizing of approx. 150 meters of existing 150 mm diameter watermain to 200 mm diameter network would need to be facilitated, with this upgrade to be funded by the developer. The proposed 150 mm diameter connection to the public water network should be onto the upsized 200 mm water main to the West of the development. The confirmation of feasibility does not extend to your fire flow requirements. Uisce Éireann cannot guarantee that the flow rates and residual pressures will meet the requirements of the Fire Authority.

- **Wastewater Connection** - Feasible without infrastructure upgrade by Uisce Éireann

  The Connection point for the proposed development shall be to the new and proposed infrastructure that shall be put in place to serve the proposed adjacent development known as “The Farm”. Alternatively, and pending phasing requirements, the Connection point for the proposed development shall be to, or as near as possible to the inlet manhole to the Existing Bessboro Wastewater Pump Station. All relevant Quality Assurances, Wayleaves, Easements, Confirmation of capacity and Permissions would need to be obtained by the Developer.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Uisce Éireann’s Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann’s network(s). This is not a connection offer and capacity in Uisce Éireann’s network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit **www.water.ie/connections, email newconnections@water.ie** or contact 1800 278 278**.**

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Uisce Éireann is a designated activity company, limited by shares.
Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363.

UE / LH / OP448 / 0323

Section A - What is important to know?

What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Uisce Éireann's network(s). • Before the Development can connect to Uisce Éireann's network(s), you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Uisce Éireann connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Uisce Éireann's network(s), including works in the public space, must be carried out by Uisce Éireann*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • **What to do?** - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • **What to do?** - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Uisce Éireann's network(s)?	• Requests for maps showing Uisce Éireann's network(s) can be submitted to: datarequests@water.ie
What are the design requirements for the connection(s)?	• The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with ***the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

Section B – Details of Uisce Éireann's Network(s)

The map included below outlines the current Uisce Éireann infrastructure adjacent the Development: To access Uisce Éireann Maps email datarequests@water.ie

Water Network Details

Sewer network Details

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Note: The information provided on the included maps as to the position of Uisce Éireann's underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Uisce Éireann.

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- Appendix 6-3 – Uisce Éireann Web Map of Wastewater Treatment Plants and Pumping Stations

Uisce Éireann Web Map

UISCE ÉIREANN : IRISH WATER

Print Date: 08/02/2022

Printed by:Irish Water

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2. 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 worksbeing 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.

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"Gas Networks Ireland (GNI), their affiliates and assigns, accept no responsibility for any information contained in this document concerning location and technical designation of the gas distribution and transmission network ("the Information"). 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, special, incidental, punitive or consequential loss including loss of profits, arising out of or in connection with the use of the information
(including maps or mapping data).
NOTE: DIAL BEFORE YOU DIG Phone: 1850 427 747 or e-mail dig@gasnetworks.ie - The actual position of the gas/electricity distribution and transmission network must be verified on site before any mechanical excavating takes place. If any mechanical excavation is proposed, hard copy maps must be requested from GNI re gas. All work in the vicinity of gas distribution and transmission network must be completed in accordance with the current edition of the Health & Safety Authority publication,
'Code of Practice For Avoiding Danger From Underground Services' which is available from the Health and Safety Authority (1890 28 93 89) or can be downloaded free of charge at www.hsa.ie."

Water Distribution Network
- Water Treatment Plant
- Water Pump Station
- Storage Cell/Tower
- Dosing Point
- Meter Station
- Abstraction Point
- Telemetry Kiosk

Reservoir
- Potable
- Raw Water

Water Distribution Mains
- Irish Water
- Private

Trunk Water Mains
- Irish Water
- Private

Water Lateral Lines
- Irish Water
- Non IW
- Water Casings
- Water Abandoned Lines
- Boundary Meter
- Bulk/Check Meter
- Group Scheme
- Source Meter
- Waste Meter
- Unknown Meter ; Other Meter
- Non-Return
- PRV
- PSV
- Sluice Line Valve Open/Closed
- Butterfly Line Valve Open/Closed
- Sluice Boundary Valve Open/Closed
- Butterfly Boundary Valve Open/Closed
- Scour Valves
- Single Air Control Valve
- Double Air Control Valve
- Water Stop Valves
- Water Service Connections
- Water Distribution Chambers
- Water Network Junctions
- Pressure Monitoring Point
- Fire Hydrant
- Fire Hydrant/Washout

Water Fittings
- Cap
- Reducer
- Tap
- Other Fittings

Sewer Foul Combined Network
- Waste Water Treatment Plant
- Waste Water Pump station

Sewer Mains Irish Water
- Gravity - Combined
- Gravity - Foul
- Gravity - Unknown
- Pumping - Combined
- Pumping - Foul
- Pumping - Unknown
- Syphon - Combined
- Syphon - Foul
- Overflow

Sewer Mains Private
- Gravity - Combined
- Gravity - Foul
- Gravity - Unknown
- Pumping - Combined
- Pumping - Foul
- Pumping - Unknown
- Syphon - Combined
- Syphon - Foul
- Overflow
- Sewer Lateral Lines
- Sewer Casings

Sewer Manholes
- Standard
- Backdrop
- Cascade
- Catchpit
- Bifurcation
- Hatchbox
- Lamphole
- Hydrobrake
- Other; Unknown

Discharge Type
- Outfall
- Overflow
- Soakaway
- Standard Outlet
- Other; Unknown

Cleanout Type
- Rodding Eye
- Flushing Structure
- Other; Unknown

Sewer Inlets
- Catchpit
- Gully
- Standard
- Other; Unknown

Sewer Fittings
- Vent/Col
- Other; Unknown

Storm Water Network

Surface Water Mains
- Surface Gravity Mains
- Surface Gravity Mains Private
- Surface Water Pressurised Mains
- Surface Water Pressurised Mains Private

Inlet Type
- Gully
- Standard
- Other; Unknown

Storm Manholes
- Standard
- Backdrop
- Cascade
- Catchpit
- Bifurcation
- Hatchbox
- Lamphole
- Hydrobrake
- Other; Unknown
- Storm Culverts
- Storm Clean Outs
- Stormwater Chambers

Discharge Type
- Outfall
- Overflow
- Soakaway
- Other; Unknown

Gas Networks Ireland
- Transmission High Pressure Gasline
- Distribution Medium Pressure Gasline
- Distribution Low Pressure Gasline

ESB Networks

ESB HV Lines
- HV Underground
- HV Overhead
- HV Abandoned

ESB MV/LV Lines
- MV Overhead Three Phase
- MV Overhead Single Phase
- LV Overhead Three Phase
- LV Overhead Single Phase
- MV/LV Underground
- Abandoned

Non Service Categories
- Proposed
- Under Construction
- Out of Service
- Decommissioned

Water Non Service Assets
- Water Point Feature
- Water Pipe
- Water Structure

Waste Non Service Assets
- Waste Point Feature
- Sewer
- Waste Structure

- Appendix 6-4 – ESB Networks – Information Sheets 1 and 2

TITLE: 20180726-039_A3(1)

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: 26-Jul-2018

** SCALE: 1:2000

** SCALE WHEN PRINTED ON AN A3 PAGE
XY COORDINATES DISPLAYED IN IRISH GRID COORDINATE SYSTEM

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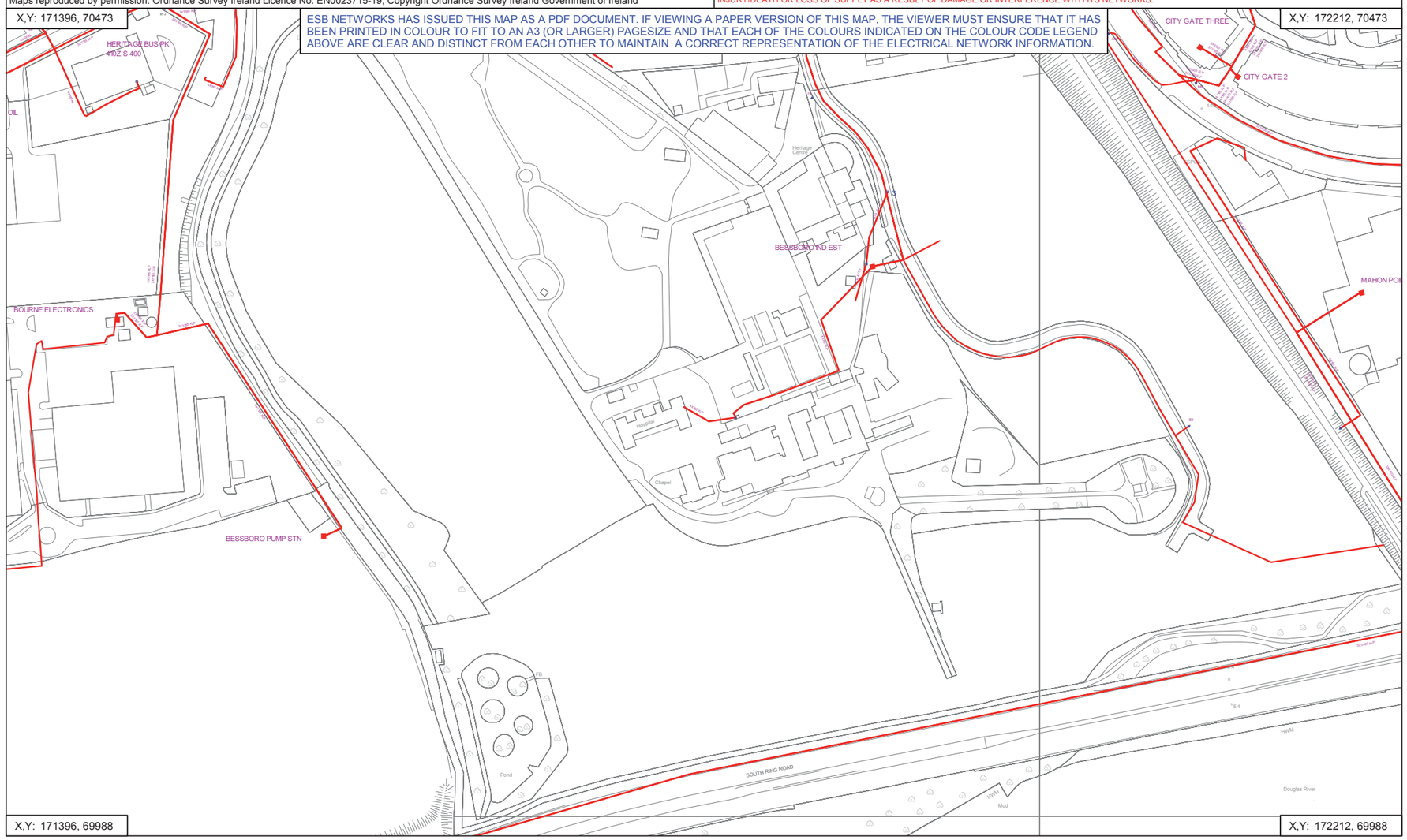
WARNING

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.

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.



TITLE: 20180726-039_A3(2)

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: 26-Jul-2018

** SCALE: 1:2000

** SCALE WHEN PRINTED ON AN A3 PAGE
XY COORDINATES DISPLAYED IN IRISH GRID COORDINATE SYSTEM

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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.

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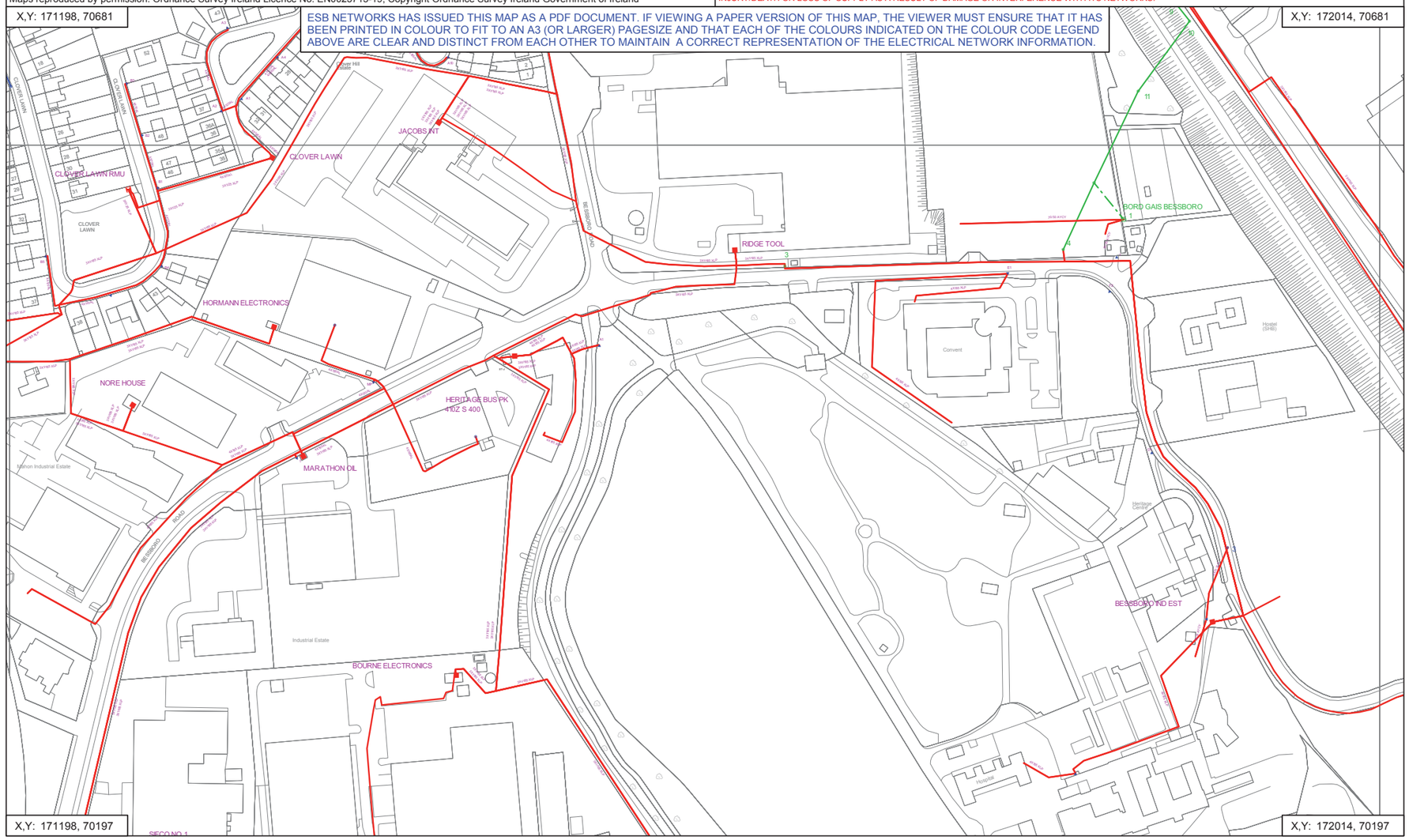
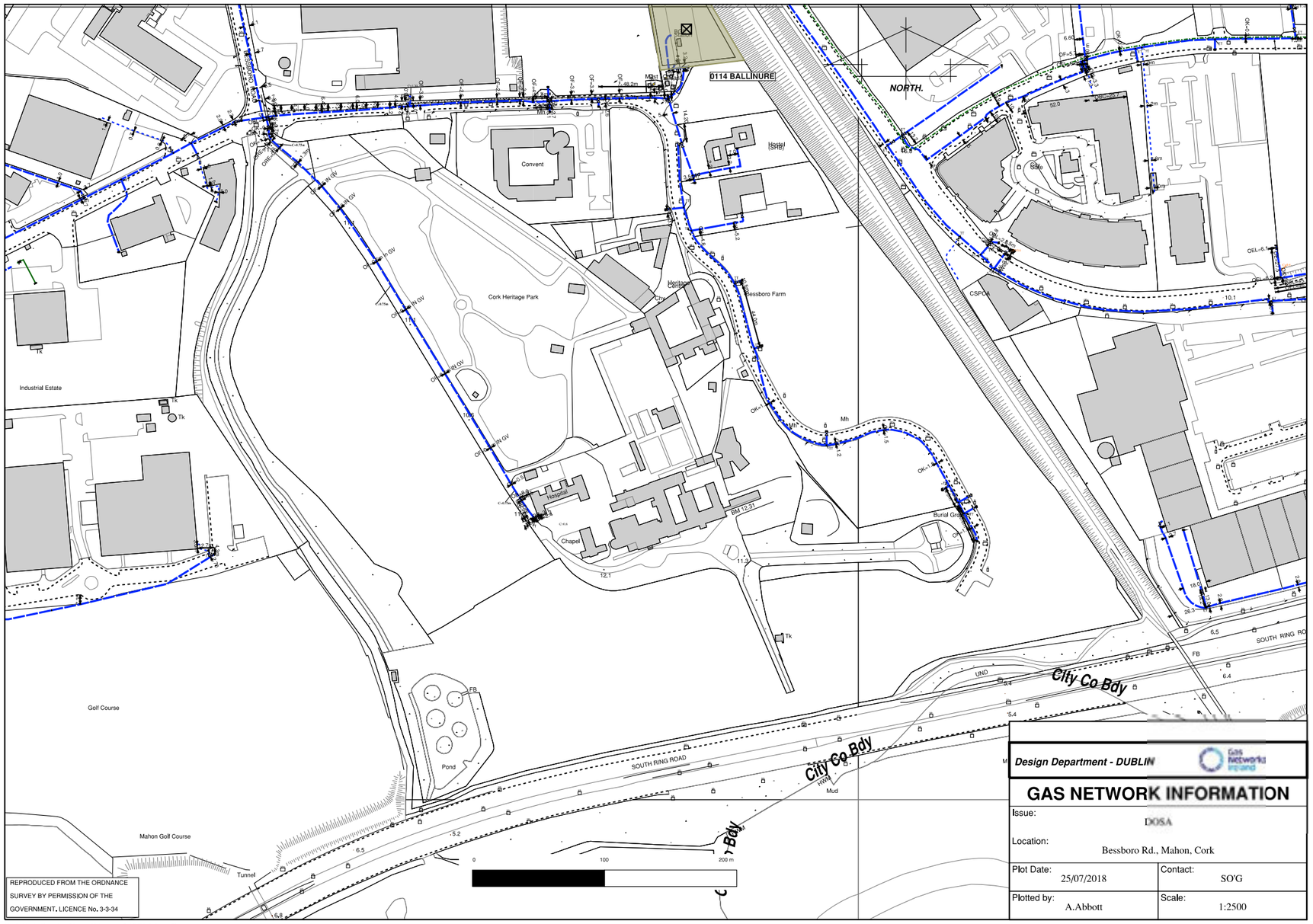


- Appendix 6-5 – Gas Networks Ireland – Information



Design Department - DUBLIN

Gas Networks Ireland

GAS NETWORK INFORMATION

Issue: DOSA	
Location: Bessboro Rd., Mahon, Cork	
Plot Date: 25/07/2018	Contact: SO'G
Plotted by: A.Abbott	Scale: 1:2500

Not Archived - Alternative : [Network Maintenance Dublin]2018_Aaron_Plots

- Appendix 6-6 – Eir Maps – Information Sheets 1 and 2

A3

PLANT REQUESTED FROM eircom emaps CBYD SERVICE

https://cbyd.emaps.eircom.ie/

Scale: 1:1500

Irish National Grid Co-Ordinates
Centre XY: 171665 m, 70490 m

Date
24/07/2018

emaps CBYD

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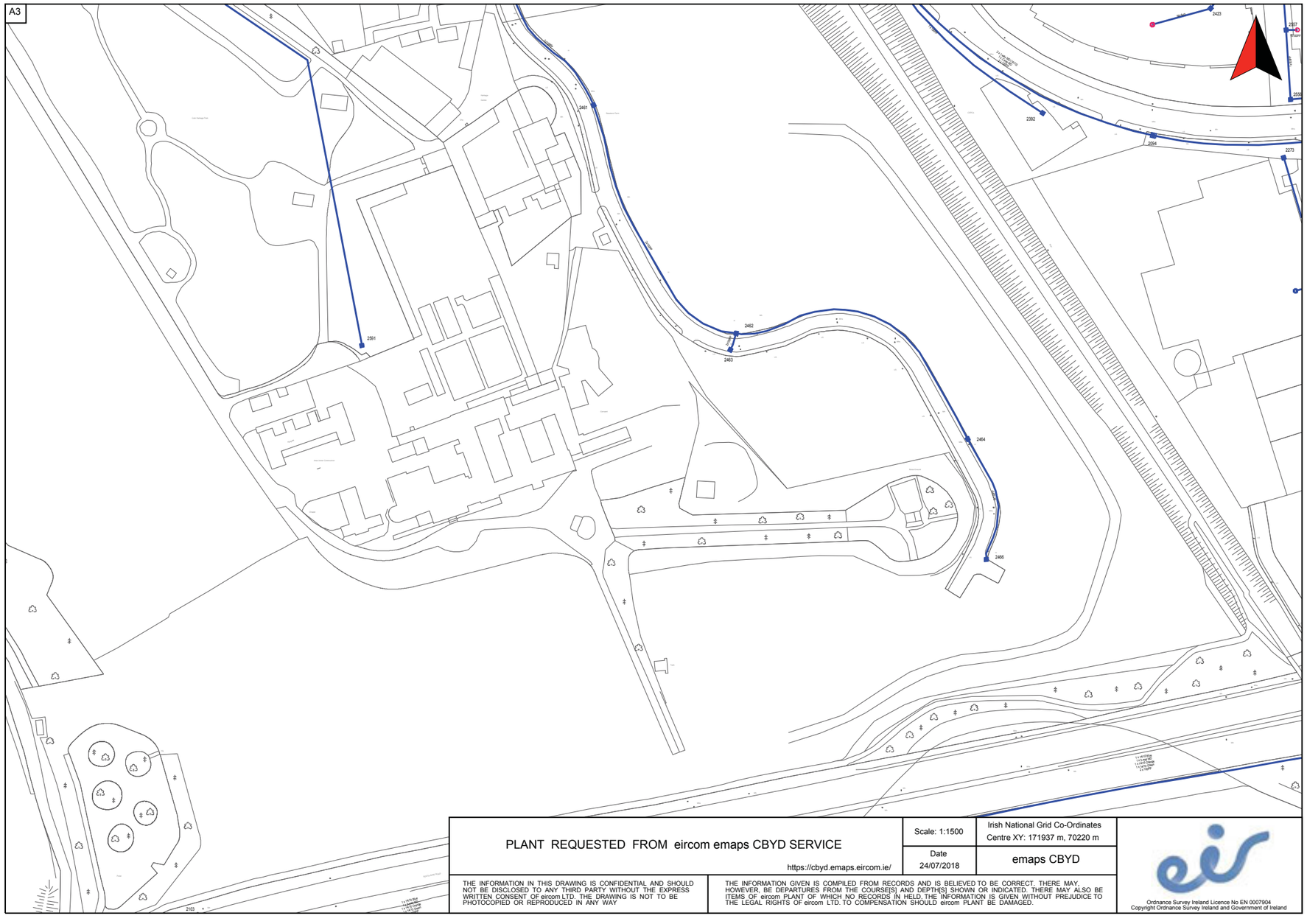
A3



PLANT REQUESTED FROM eircom emaps CBYD SERVICE

https://cbyd.emaps.eircom.ie/

Scale: 1:1500

Date 24/07/2018

Irish National Grid Co-Ordinates
Centre XY: 171937 m, 70220 m

emaps CBYD

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- Appendix 6-7 - External Lighting Analysis Report by DKPartnership

Document control

DKP project no: M88
DKP document no: 6600
Project file no: M8801-DKP-6600-DC-XX-XX

Circular	Issue >	1#	1P	2#	3P
Clients	Estuary View Enterprises 2020 Ltd				
Architects	Shipseybarry Architects	☑	☑	☑	☑
Planning consultants	HW Planning	☑	☑	☑	☑
Landscape architects	Ilsa Rutgers				

Issue	1#	2025-07-28	Draft Planning issue
Issue	1P	2025-09-04	Planning issue
Issue	2#	2025-09-23	Revised planning issue draft
Issue	3P	2025-12-06	Planning issue

Document issue status ID

Sketch/draft
P Planning
C Concept
D Design
G General information
T Tender
W Works/construction
Z As-build/constructed

Issue	Prepared	Checked	Approved
1#	212	201	201
1P	212	201	201
2#	212	201	201
3P	201	201	201

ING Gerard (Craig) van Deventer CEng., BE(mech)., HDip CIOB, MCIBSE

M : [00] 353 (0)87 260 8080
E : gerard@dkpartnership.com

DKPartnership
70 Main Street, Applewood , Swords, Co. Dublin, Ireland
Reen Kenmare Co. Kerry

post@dkpartnership.com
www.dkpartnership.com

T : [00] 353 (0) 1813 1930
T : [00] 353 (0)64664 1686

Bessborough The Farm

Proposed Residential Development

EXTERNAL (PUBLIC) LIGHTING REPORT

Bessborough,
Ballinure,
Blackrock,
Co. Cork

Estuary View Enterprises 2020 Ltd

DKP document no
6600

Document issue / status
3 / P

Issue date
2025-12-06

Project file no
M8801-DKP-6600-DC-XX-XX ¦ 3P

DKP EV ENVIRONMENTAL Dublin Cork London
T : 01-813-1930 T : 064-664-1686
E : post@dkpartnership.com

1 Introduction

1.1 **Report purpose**
This report gives information on the external (public) lighting installation in connection with the new prosed project covering the site main entrance, internal circulation roads, public parking spaces, cycle & footpath.

1.2 **Instruction**
DKPartnership (DKP) have been commissioned by Estuary View Enterprises 2020 Ltd, to carry out the analysis and report for the proposed development at Bessborough, Co. Cork.

1.3 **Development detail**
Estuary View Enterprises 2020 Limited, intend to apply for planning permission for a Large-scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork.
The proposed development will consist of: the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structure and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: 70 no. 1-bedroom, 12 no. 2-bedroom (3 person), 57 no. 2-bedroom (4 person) and 1 no. 3-bedroom. Block A and Block B will be retained for resident amenities. The proposal includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas, as well as new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessboro Road. The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road. Part of the proposed development is situated within the curtilage of Bessborough House which is a Protected Structure (Reference: RPS 490). An Environmental Impact Assessment Report and a Natura Impact Statement have been prepared in respect of the proposed development.

1.4 **Policy and building regulation requirements**
The project is subject to the following statutory and policy illumination target requirements:
a) 1 EN13201 European Standard for Road lighting
b) Cork City Council Public Lighting Manual and Product Specification,

Contents

Section		Page
1	Introduction	4
2	Executive summary	5
3	Proposed development location	7
4	Approach, methodology and calculation results	8
5	Calculation summary and conclusion	10

Appendix A	Public footpath to the Greenway bridge illuminance calculation report	Attached
Appendix B	Estate roads illuminance contours drawing	Attached
Drawing	2001 1:500 Public lighting highlighted column location drawing	Separate
Drawing	2002 1:500 Public lighting illuminance contours layout drawing	Separate

2 Executive summary

2.1 Analysis conducted.

This report analyses the illumination calculation results of the proposed lighting design in respect of new project the site internal circulation roads, public parking spaces, adjacent footpath and separate public footpath to the greenway bridge.

2.2 EN132201 External lighting calculation design targets

The table below details the main targets to be achieved for the different lighting classes. The P class is generally for pedestrian traffic and cyclists for use on footways and cycleways, and drivers of motorised vehicles at low speed on residential roads, shoulder or parking lanes, and other road areas lying separately or along a carriageway of a traffic route or a residential road, etc.. The C lighting class is applied for use in conflict areas on traffic routes where the traffic composition is mainly motorised. Conflict areas occur wherever vehicle streams intersect each other or run into areas frequented by pedestrians, cyclists, or other road users. Areas showing a change in road geometry, such as a reduced number of lanes or a reduced lane or carriageway width, are also regarded as conflict areas. The M standard is mainly for motorways.

The table below indicates the P4 and C4 class minimum EN13201 illumination targets.

Illumination class	E avg lx	E min lx	Uniformity		Illumination class	E avg lx	E min lx	Luminance cd/m2	Uniformity
P1	15.0	3.0	0.2		M1/C1	30.0	12.0	2.0	0.4
P2	10.0	2.0	0.2		M2/C2	20.0	8.00	1.5	0.4
P3	7.50	1.5	0.2		M3/C3	15.0	6.00	1.0	0.4
P4	5.00	1.0	0.2		M4/C4	10.0	4.00	0.75	0.4
					M5/C5	7.50	1.50	0.50	0.3

Copy of Table 4.2 EN132201 lighting class P, C and M standards.

2.3 Design considerations

The external lighting design has been executed using the European design standard EN 1332201 category P3 for the development estate roads, public parking spaces and adjacent footpath and P4 for the separate footpath to the link bridge to the greenway. Further consideration was given to the lighting design with regards to the colour temperature of the light fittings which was applied at 2700K in line with the recommendations under the UNE/EUROBATS to reduce the impact on any bat routes, zones given the significant tree areas. We note that the feeder road to the estate has existing lighting in the reports identified as light type A and are modern LED street lights.

2.4 Calculation data results

From appendix A and B representing the Lighting Reality illumination calculation reports for the relevant elements we note the average illuminance Eav for the estate roads, adjacent foot path and public parking areas to be 7.57lx and in excess of the P3 class requirements of 7.50lx. The minimum illuminance Emin for estate roads, adjacent foot path and public parking areas is 1.69lx and is in excess of the P3 class requirement of 1.50lx. The average illuminance Eav for the foot path to the greenway bridge is 5.68lx and in excess of the P4 class requirements of 5.0lx. The minimum illuminance Emin for main access point junction is 1.19lx and is in excess of the P4 class requirement of 1.0lx. Both uniformities are also compliant.

Element	Standard	E avg lx	E min lx	Uniformity	Compliance
Roads & adjacent footpath & public parking	P3	7.94 (7.50)	1.69 (1.50)	0.21 (0.20)	√
Separate public foot path to greenway bridge	P4	7.94 (7.50)	1.69 (1.50)	0.21 (0.20)	√

Copy of Table 5.1 Achieved illumination levels..

The illuminance data was calculated using the following fittings/poles.

Fitting	Serving	Make	Model / Type	Wattage	Pole height
Luminaire A*	Existing feeder road	Philips	BGP 307 T25 MD50 LED40/740 NO	33	6.0m pole
Luminaire F	Estate roads	Cree	RSA-02-200-6L27841W	41	6.0m pole
Luminaire D	Footpath to bridge	Cree	TRSA-02-K07-2L-278_10W	10	6.0m Pole

Copy of Table 5.2 Light fitting types applied..

*Luminaire A are existing lighting columns on the (Bessborough) feeder road.

Light fitting columns.
The following column notes represents to column specification to be applied;
General: All new lighting columns will be sided steel tapered, hot dipped galvanised coated finish to ISO EN 40.
In restricted locations: Where access for a hoist and other mechanically operated machine for the purpose of lamp/column maintenance is not possible the relevant column shall be of the foldable type.

2.5 Conclusion

The external (public) lighting design as per illumination calculation reports appendix A and B and 1:500 DKP public lighting drawings meets the criteria set out in EN13201 for lighting class P3 covering the internal roads, public parking areas and adjacent footpath and lighting class P4 for the public footpath to the greenway bridge. Further consideration was given to the lighting design colour temperature which at 2700K is in line UNE / EUROBATS to reduce the impact on any bat routes, zones etc. and we, DKP therefore deem the external lighting design to be in compliance with the applied standards and recommendations.

2.6 Mitigation measures / actions

No mitigation measures required for compliance to lighting standards.

3 Geographical overview

3.1 **Project overview**
Image 3.1, the (google maps) site map below shows the approximate location of the site with proposed development approximately outlined in red.

Image 3.1: The farm approximate proposed development site area outlined

4 Approach and methodology

4.1 **Design targets.**
For the design of the public lighting we applied the P3 standard for the estate roads, adjacent footpath & public parking areas and applied the P4 standard for the public footpath to the greenway bridge in line with the general requirement for as outlined in EN132201 .

4.2 **The extend of the external lighting sections**
The illustration below is an architects layout of the overall site.

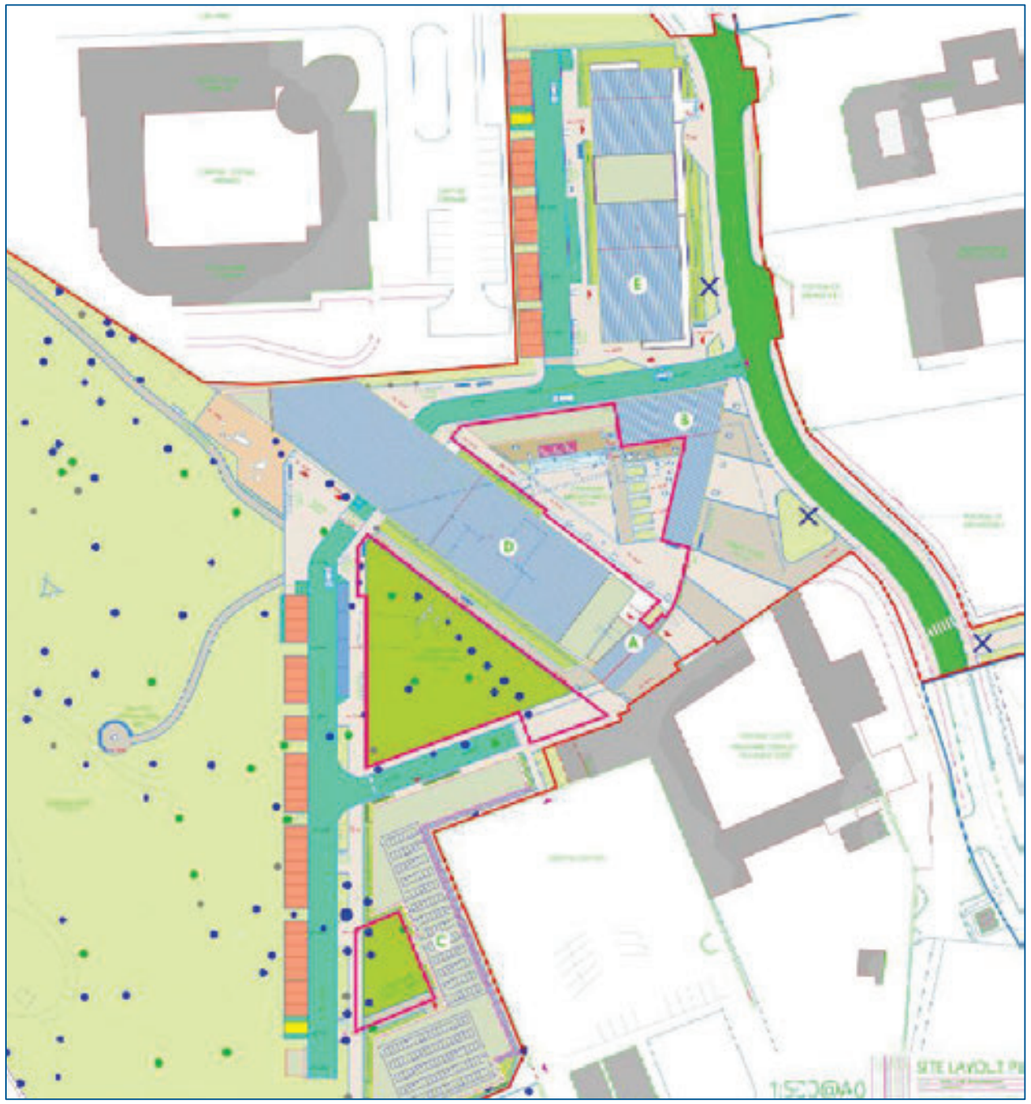


Image 4.1 Architects site A layout. Site circulation road Public parking Existing (Bessborough) feeder road

Area/Section	Grid	Standard
Site	1	P3
Footpath	2	P4

Table 4.1 Illumination areas applied for calculation.

4.3 EN132201 external lighting data and targets

The table below details the relevant P and C targeted as noted above. The P class is generally for pedestrian traffic and cyclists for use on footways and cycleways, and drivers of motorised vehicles at low speed on residential roads, shoulder or parking lanes, and other road areas lying separately or along a carriageway of a traffic route or a residential road, etc.. The C lighting class is applied for use in conflict areas on traffic routes where the traffic composition is mainly motorised. Conflict areas occur wherever vehicle streams intersect each other or run into areas frequented by pedestrians, cyclists, or other road users. Areas showing a change in road geometry, such as a reduced number of lanes or a reduced lane or carriageway width, are also regarded as conflict areas. The M standard is mainly for motorways.

Illumination class	E avg lx	E min lx	Uniformity		Illumination class	E avg lx	E min lx	Luminance cd/m2	Uniformity
P1	15.0	3.0	0.2		M1/C1	30.0	12.0	2.0	0.4
P2	10.0	2.0	0.2		M2/C2	20.0	8.00	1.5	0.4
P3	7.50	1.5	0.2		M3/C3	15.0	6.00	1.0	0.4
P4	5.00	1.0	0.2		M4/C4	10.0	4.00	0.75	0.4
					M5/C5	7.50	1.50	0.50	0.3

Table 4.2 EN132201 lighting class P, C and M standards. Applied P3 and C4 standards highlighted.

4.4 The general design approach.

Step 1: We in first instance use Lighting Reality Roadway linear road luminance calculations to establish the most energy and column-to-column distance efficient light fitting.

Step 2: We use Lighting Reality Outdoor to calculate the illuminance using the most efficient light fittings established in step 1 to target the P3 lighting category.

5 Calculation data and conclusion

5.1 Calculated achieved illuminance results.

From appendix A and B representing the Lighting Reality illumination calculation reports for the relevant elements we note the average illuminance Eav for the estate roads, adjacent foot path and public parking areas to be 7.57lx and in excess of the P3 class requirements of 7.50lx. The minimum illuminance Emin for estate roads, adjacent foot path and public parking areas is 1.69lx and is in excess of the P3 class requirement of 1.50lx. The average illuminance Eav for the foot path to the greenway bridge is 5.68lx and in excess of the P4 class requirements of 5.0lx. The minimum illuminance Emin for main access point junction is 1.19lx and is in excess of the P4 class requirement of 1.0lx. Both uniformities are also compliant.

Element	Standard	E avg lx	E min lx	Uniformity	Compliance
Roads & adjacent footpath & public parking	P3	7.94 (7.50)	1.69 (1.50)	0.21 (0.20)	√
Separate public foot path to greenway bridge	P4	7.94 (7.50)	1.69 (1.50)	0.21 (0.20)	√

Table 5.1 Achieved illumination levels..

5.2 Illumination contour 1:500 layout drawing(s).

The 1:500 drawing(s) are that large that any copy or clip at A4 scale for this report would be illegible. Refer the separate attached/enclosed DKP drawing 2002 for 1:500 public lighting layout drawing(s) showing the proposed infrastructure (ducting) layout.

5.3 Highlighted lighting column location and infrastructure layout drawing(s).

The 1:500 drawing(s) is/are that large that any copy or clip at A4 scale for this report would be illegible. Refer the separate attached/enclosed DKP drawings 2001 for 1:500 public lighting layout drawing(s) showing the highlighted column locations and relevant infrastructure.

5.4 Applied light fittings schedule.

From the appendix representing the illumination calculations and the 1:500 DKP site illumination contours and highlighted column location site drawings we note that the following lighting fittings have been applied as a result of the initial step 1 linear road luminance calculations to establish the most energy and column-to-column distance efficient light fittings.

The illuminance data was calculated using the following fittings/poles.

Fitting	Serving	Make	Model / Type	Wattage	Pole height
Luminaire A*	Existing feeder road	Philips	BGP 307 T25 MD50 LED40/740 NO	33	6.0m pole
Luminaire F	Estate roads	Cree	RSA-02-200-6L27841W	41	6.0m pole
Luminaire D	Footpath to bridge	Cree	TRSA-02-K07-2L-278_10W	10	6.0m Pole

Table 5.2 Light fitting types applied..

Luminaire A are existing lighting columns on the (Bessborough) feeder road.

Luminaire A Data

Supplier	
Type	BGP307 T25 DM50 LED40/740 NO
Lamp(s)	LED40-4S/740
Lamp Flux (klm)	4.00
File Name	ofmt1_bgp307t251xled40-4s740dm50.ies
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	889.0, 63.6, 0.0
No. in Project	6

APPENDIX A

Public footpath illumination report

Luminaire F Data

Supplier	Cree Lighting
Type	TRSA-03-200-6L-27841W
Lamp(s)	12x6L41W27K
Lamp Flux (klm)	5.22
File Name	TRSA-03-200-6L-278 41W-1400-QL35-S05 .IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	462.5, 41.7, 0.0
No. in Project	10

Luminaire D Data

Supplier	Cree Lighting
Type	TRSA-02-K07-2L-278_10W
Lamp(s)	403-QL22-S05
Lamp Flux (klm)	1.08
File Name	TRSA-02-K07-2L-278_10W.IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	637.1, 88.5, 1.9
No. in Project	5

5.5 **Lighting columns.**
The following column notes represents to column specification to be applied;
General: All new lighting columns will be sided steel tapered, hot dipped galvanised coated finish to ISO EN 40.
In restricted locations: Where access for a hoist and other mechanically operated machine for the purpose of lamp/column maintenance is not possible the relevant column shall be of the foldable type.

2.7 **Conclusion**
The external (public) lighting design as per illumination calculation reports appendix A and B and 1:500 DKP public lighting drawings meets the criteria set out in EN13201 for lighting class P3 covering the internal roads, public parking areas and adjacent footpath and lighting class P4 for the public footpath to the greenway bridge. Further consideration was given to the lighting design colour temperature which at 2700K is in line UNE / EUROBATS to reduce the impact on any bat routes, zones etc. and we, DKP therefore deem the external lighting design to be in compliance with the applied standards and recommendations.

5.6 **Mitigation measures / actions**
No mitigation measures required for compliance to lighting standards.

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 110.5m x -139.1m
Area 195.1m x 176.9m
Sample Spacing 1.48m x 1.47m

Luminaires

Luminaire D Data

Supplier	Cree Lighting
Type	TRSA-02-K07-2L-278_10W
Lamp(s)	403-QL22-S05
Lamp Flux (klm)	1.08
File Name	TRSA-02-K07-2L-278_10W.IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	637.1, 88.5, 1.9
No. in Project	5

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
2	A	152.03	-93.15	6.00	45.00	0.00	0.00	0.50			
1	A	170.50	-111.13	6.00	36.00	0.00	0.00	0.50			
3	A	148.74	-65.25	6.00	198.00	0.00	0.00	0.50			
4	A	135.80	-43.23	6.00	6.00	0.00	0.00	0.50			
5	A	134.03	-14.89	6.00	6.00	0.00	0.00	0.50			
6	A	126.18	6.35	6.00	31.00	0.00	0.00	0.50			
31	D	291.83	-100.95	4.00	105.00	0.00	0.00	0.50			
33	D	269.58	-107.55	4.00	106.00	0.00	0.00	0.50			
33	D	245.80	-114.52	4.00	107.00	0.00	0.00	1.00			
34	D	224.95	-120.55	4.00	104.00	0.00	0.00	1.00			
35	D	200.51	-127.80	4.00	108.00	0.00	0.00	1.00			

9750839328

DATE: 2025-11-25
DESIGNER: DKPI
PROJECT No: M88
PROJECT NAME: Bessborough - phase 1 - Farm

Existing main feeder road light A taken as to comply with Cat P3.
Calculations for inner estate roads comply with Cat P3
Junction at feeder road complies with Cat C3
Footpath to Greenway bridge complies to P4

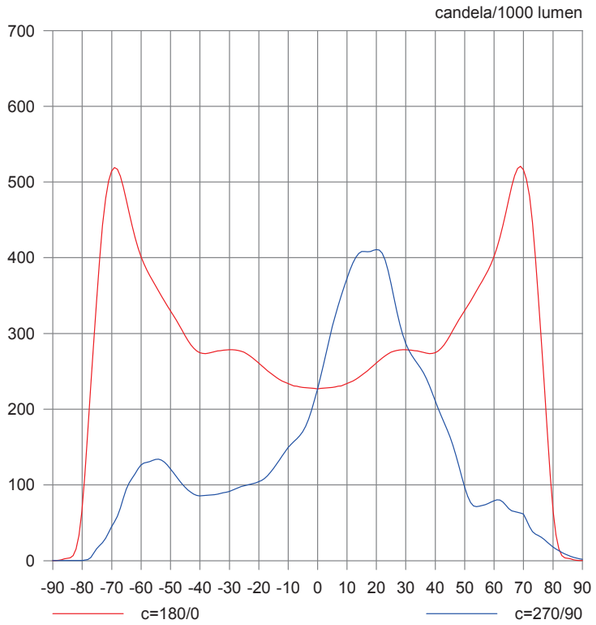
Footpath to Greenway & Bridge

n:\dk\1 - confirmed\m88-bessborough sb\02-planning\2025\3 public lighting\lighting reality calculations\phase 2 farm 24-11-2025 footpaths.rtma

DATE: 2025-11-25 DESIGNER: DKPI
PROJECT No: M88 PROJECT NAME: Bessborough - phase 1 - Farm

Cartesian Diagram

Luminaire D TRSA-02-K07-2L-278_10W



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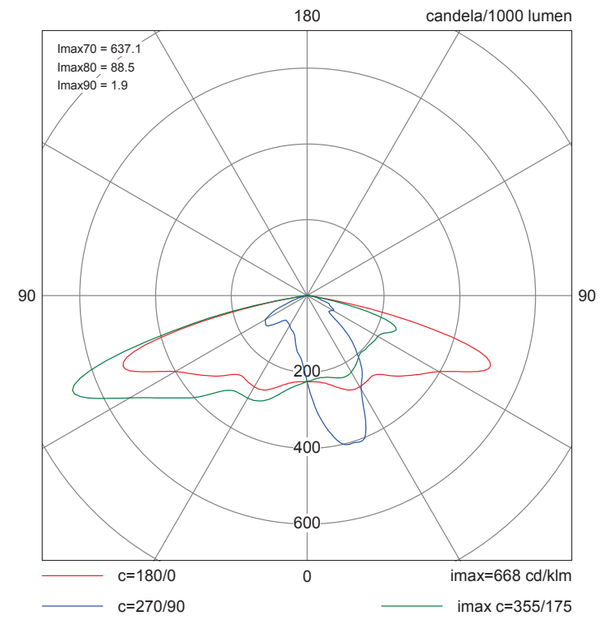
DATE: 2025-11-25 DESIGNER: DKPI
PROJECT No: M88 PROJECT NAME: Bessborough - phase 1 - Farm

Polar Diagram

Luminaire D TRSA-02-K07-2L-278_10W



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APPENDIX B

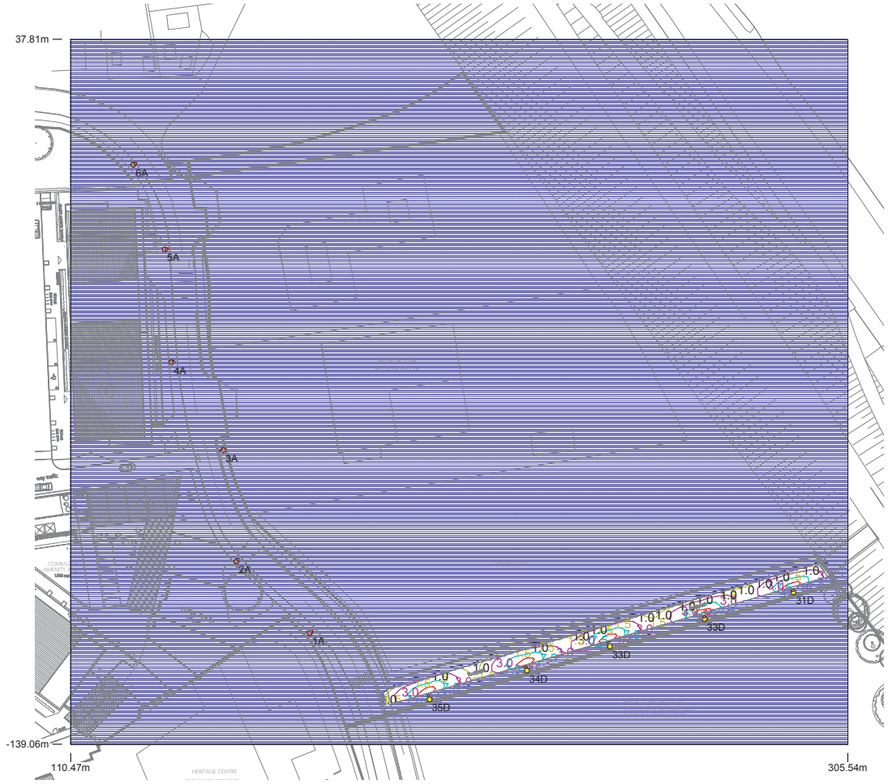
Estate roads illumination calculation report

DATE: 2025-11-25 DESIGNER: DKPI

PROJECT No: M88 PROJECT NAME: Bessborough - phase 1 - Farm

Horizontal Illuminance (lux)

Grid 1



Results

Eav	5.68
Emin	1.19
Emax	20.81
Emin/Emax	0.06
Emin/Eav	0.21

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Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin -53.0m x -267.0m
Area 230.1m x 298.3m
Sample Spacing 1.13m x 1.61m

Luminaires

Luminaire A Data

Supplier	
Type	BGP307 T25 DM50 LED40/740 NO
Lamp(s)	LED40-4S/740
Lamp Flux (klm)	4.00
File Name	ofmt1_bgp307t251xled40-4s740dm50.ies
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	889.0, 63.6, 0.0
No. in Project	6

Luminaire F Data

Supplier	Cree Lighting
Type	TRSA-02-200-6L27841W
Lamp(s)	12lu6L41W27K
Lamp Flux (klm)	5.22
File Name	TRSA-02-200-6L-278 41W-1408-QL20-S05 .IES
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	462.5, 41.7, 0.0
No. in Project	13

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
2	F	74.96	-71.73	6.00	297.00	0.00	0.00	1.00			
2	A	152.03	-93.15	6.00	45.00	0.00	0.00	0.50			
1	A	170.50	-111.13	6.00	36.00	0.00	0.00	0.50			
3	A	148.74	-65.25	6.00	198.00	0.00	0.00	0.50			
4	A	135.80	-43.23	6.00	6.00	0.00	0.00	0.50			
5	A	134.03	-14.89	6.00	6.00	0.00	0.00	0.50			
6	A	126.18	6.35	6.00	31.00	0.00	0.00	0.50			
9	F	94.30	-65.51	6.00	0.00	0.00	0.00	1.00			
10	F	125.37	-73.23	6.00	101.00	0.00	0.00	1.00			
11	F	93.28	-39.46	6.00	1.00	0.00	0.00	1.00			
12	F	51.03	-93.27	6.00	315.00	0.00	0.00	1.00			
13	F	44.36	-121.14	6.00	0.00	0.00	0.00	1.00			
14	F	45.01	-148.16	6.00	0.00	0.00	0.00	1.00			
15	F	57.91	-169.51	6.00	181.00	0.00	0.00	1.00			
16	F	89.00	-142.77	6.00	290.00	0.00	0.00	1.00			
17	F	57.62	-187.86	6.00	180.00	0.00	0.00	1.00			
18	F	45.94	-210.96	6.00	359.00	0.00	0.00	1.00			
19	F	92.39	-13.51	6.00	3.00	0.00	0.00	1.00			
20	F	69.00	-150.05	6.00	290.00	0.00	0.00	1.00			

DATE: 2025-11-25
DESIGNER: DKPI
PROJECT No: M88
PROJECT NAME: Bessborough - phase 1 - Farm

Existing road light type A taken as designed to Cat P3
Estate roads desihned to cat P3
Junction to existing road designed to cat C3

ESTATE ROADS

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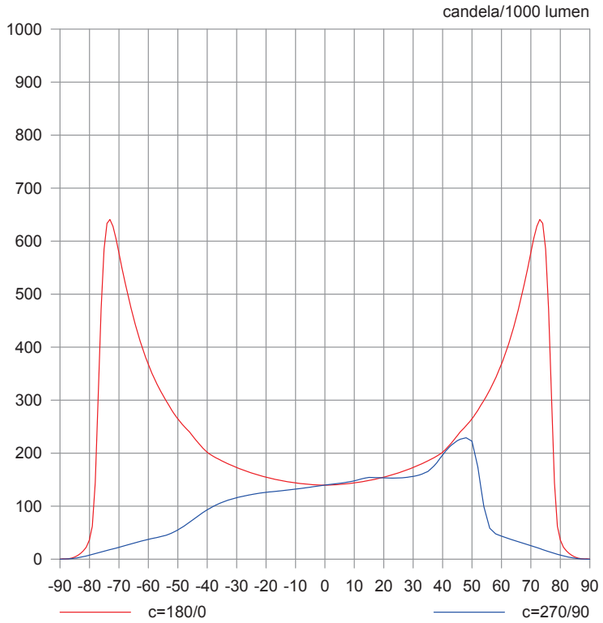
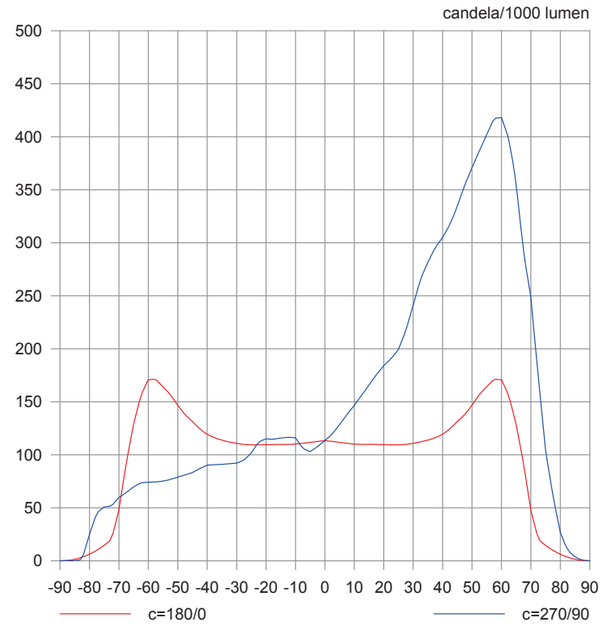
DATE: 2025-11-25 DESIGNER: DKPI
PROJECT No: M88 PROJECT NAME: Bessborough - phase 1 - Farm

Cartesian Diagrams

Luminaire A BGP307 T25 DM50 LED40/740 NO



Luminaire F TRSA-02-200-6L27841W



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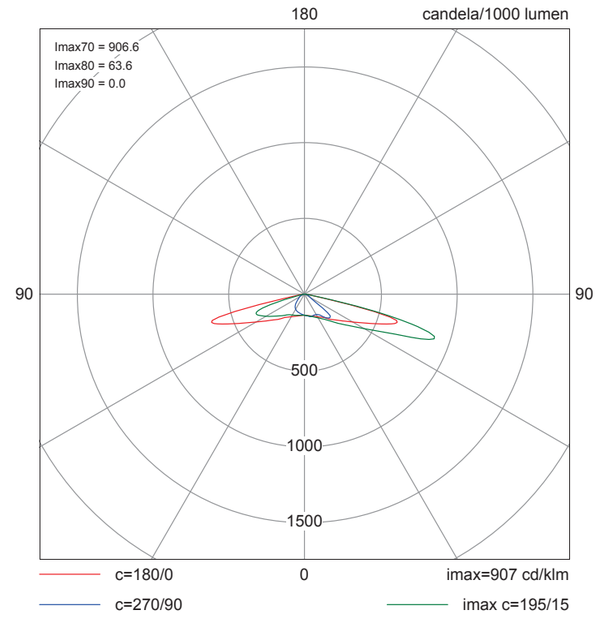
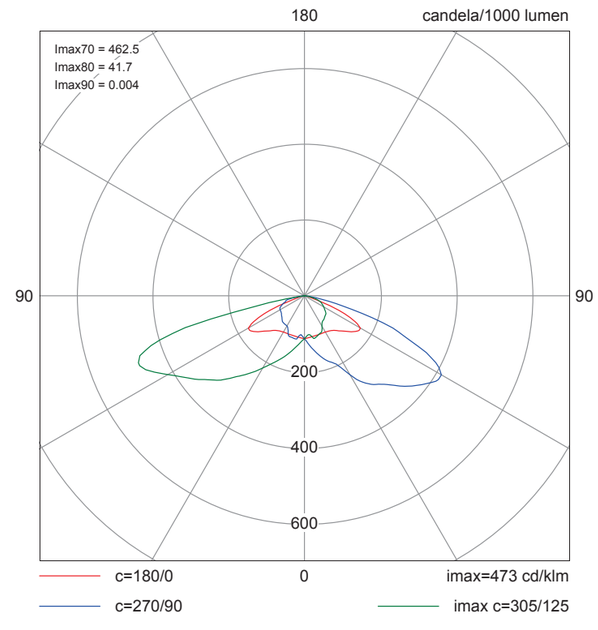
DATE: 2025-11-25 DESIGNER: DKPI
PROJECT No: M88 PROJECT NAME: Bessborough - phase 1 - Farm

Polar Diagrams

Luminaire A BGP307 T25 DM50 LED40/740 NO



Luminaire F TRSA-02-200-6L27841W



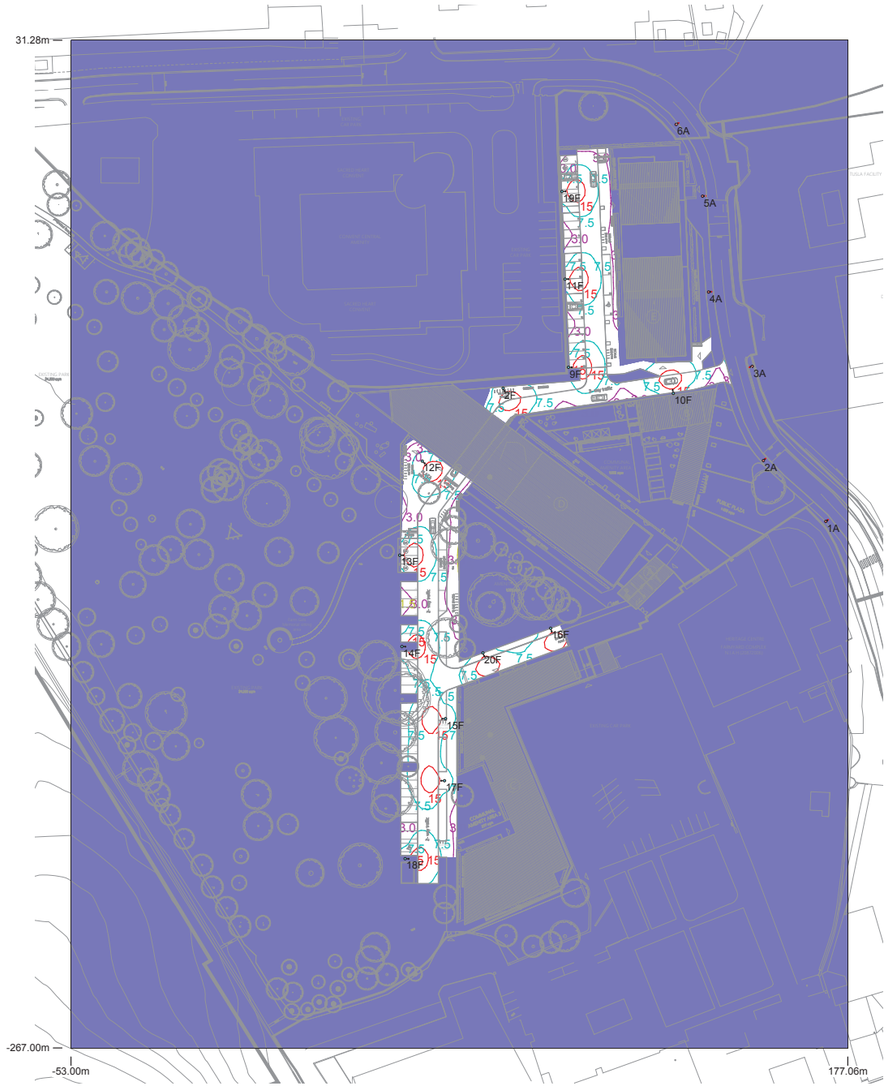
9750839328

DATE: 2025-11-25 DESIGNER: DKPI

PROJECT No: M88 PROJECT NAME: Bessborough - phase 1 - Farm

Horizontal Illuminance (lux)

ESTATE



Results

Eav	7.94
Emin	1.69
Emax	19.63
Emin/Emax	0.09
Emin/Eav	0.21

9750839328

STATUS: A=DRAFT/FOR REVIEW, G=GENERAL/INFORMATION, P=PLANNING, S=SCHEME/CONCEPT DESIGN, D=DETAIL DESIGN, T=TENDER, C=CONSTRUCTION, A=AS-BUILD/CONSTRUCTED.
THIS DRAWING IS NOT TO BE READ IN ISOLATION BUT TO BE USED/READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS, SPECIFICATIONS, CALCULATION DATA, ANALYSIS, REPORTS AND/OR DATA

1:500 METER
0 5 10 15 20 25 30 35 40 45 50

M8800-DKP-2001-DR-XX-XX

DKP BUILDING SERVICES Dublin Cork
T: 00 353 (0) 1 813 1930 / 00 353 (0)94 464 1686
E: post@dkpartnership.com W: www.dkpartnership.com

DWG No.	DRAWING TITLE	PLOT SIZE
M8800-DKP-2001-DR-XX-XX	PHASE1 - THE FARM - SITE LAYOUT	A1

Estuary View Enterprises 2020 Ltd

Bessborough, Ballinure, Blackrock, Cork

PUBLIC LIGHTING HIGH-LIGHTED COLUMN LOCATION LAYOUT

ISSUE STATUS	ISSUE DATE	DRN	CHK	COMMENTS / NOTES
1P	2025-12-06	2xx	2xx	

SCALE 1:500 @ A1 | DRAWING NUMBER M8800-DKP-2001-DR-XX-XX | CHAPTER/PHASE 1 | DRAWN BY DKP | CHECKED BY DKP | TYPE ARCH | STATUS S2/A1

EXISTING STREET LIGHTS
NEW POLEABLE COLUMN LIGHT
NEW COLUMN LIGHT

Luminaire D Ouzum
Luminaire F Ouzum
Luminaire A Ouzum

Luminaire Data
Luminaire A BDP307 T25 DM5/D1ED40740 NO. MF 0.85
Luminaire F TRSA-02-2064L2276/1W MF 0.85
Luminaire D TRSA-02-NO-21-2.7/L.10W MF 0.85

GM 1
ESTATE
Results - Horizontal Illuminance (lux)
Ave= 7.94
Emin= 1.69
Emax= 18.6
EminEmin= 0.09
EminEmax= 0.21
EmaxEav= 2.47

GM 2
Results - Horizontal Illuminance (lux)
Ave= 5.68
Emin= 1.19
Emax= 20.81
EminEmin= 0.06
EminEmax= 0.21
EmaxEav= 3.65

VACANT SITE
TUSLA FACILITY
BESSBOROUGH DAYCARE CENTRE
BESSBOROUGH CRECHE
HERITAGE CENTRE
FABRIYARD COMPLEX
N.L.A.H (2087200G)
EXISTING CAR PARK
PUBLIC PLAZA
COMMUNAL AMENITY AREA
CHAPEL
CONVENT CENTRAL AMENITY
SACRED HEART CONVENT
EXISTING CAR PARK
BESSBOROUGH HOUSE RPS. (PS490)
BESSBOROUGH CENTRE
PHASE 1-THE MEADOWS.
SITE FOR SHD DEVELOPMENT.
(SEPARATE APPLICATION)
footpath
2- way traffic
2- way traffic
A
B
C
D
E

Grid 1
ESTATE
Results - Horizontal Illuminance (Lux)
Eav= 7.94
Emin= 1.69
Emax= 19.63
Emin/Emax= 0.09
Emin/Eav= 0.21
Emax/Eav= 2.47

Grid 2
Results - Horizontal Illuminance (Lux)
Eav= 5.68
Emin= 1.19
Emax= 20.81
Emin/Emax= 0.06
Emin/Eav= 0.21
Emax/Eav= 3.66

Luminaire Data
Luminaire A BGP307 T25 DM50 LED40740 NO MF 0.85
Luminaire F TRSA-A-02-200-6L-2784 1W MF 0.85
Luminaire D TRSA-024007-21-278_10W MF 0.85

Luminaire A Column
Luminaire F Column
Luminaire D Column

EXISTING CAR PARK
SACRED HEART CONVENT
CONVENT CENTRAL AMENITY
SACRED HEART CONVENT
EXISTING CAR PARK
TUSLA FACILITY
BESSBOROUGH DAYCARE CENTRE
VACANT SITE
PHASE 1-'THE MEADOWS' SITE FOR SHD DEVELOPMENT (SEPARATE APPLICATION)
HERITAGE CENTRE FARMYARD COMPLEX N.I.A.H.(20872006)
EXISTING CAR PARK
BESSBOROUGH CRECHE
BESSBOROUGH CENTRE
BESSBOROUGH HOUSE RPS. (PS490)
COMMUNAL AMENITY AREA 1 106 sqm
PUBLIC PLAZA 107.7 sqm
COMMUNAL AMENITY AREA 2 107 sqm
COMMUNAL AMENITY AREA 3 371 sqm
2- way traffic
footpath
A
B
C
D
E

1 : 500
0 10 15 20 25 30 35 40 45 50 METER

STATUS : S=DRAFT/FOR-REVIEW, G=GENERAL/INFORMATION, P=PLANNING, S=SCHEME/CONCEPT DESIGN, D=DETAIL DESIGN, T=TENDER, C=CONSTRUCTION, A=AS-BUILD/CONSTRUCTED.
THIS DRAWING IS NOT TO BE READ IN ISOLATION BUT TO BE USED/READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS, SPECIFICATIONS, CALCULATION DATA, ANALYSIS, REPORTS AND/OR DATA.

	2xx	2xx	2025-12-06	1P
COMMENTS / NOTES	ENG	DRN	ISSUE DATE	ISSUE STATUS

PUBLIC LIGHTING ILLUMINATION CONTOURS LAYOUT

SIZE A1 | SCALE 1:500 | COMPUTER FILE M8800-DKP-2002-DR-XX-XX

PHASE 1 - THE FARM - SITE LAYOUT

CLIENT NAME OR ENTITY: Estuary View Enterprises 2020 Ltd

PROJECT NAME AND/OR ADDRESS: Bessborough, Ballinure, Blackrock, Cork

DKP PROJECT NO M8800 | DKP | DKP DOC NO 2002 | TYPE DR | AREA XX | LEVEL XX

DKP BS BUILDING SERVICES Dublin Cork
T: 00 353 (0)1 813 1930 / 00 353 (0)64 664 1686
E: post@dkpartnership.com W: www.dkpartnership.com

- Appendix 6-8 - Proposed Drainage and Water Service Layout Drawings for Phase 1 ‘The Farm’

BIM QUALITY SHEET NO.: PIM-JBB-00-XX-TP-Z-0003

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NOTES:

1. ALL LEVELS TO ORDINANCE DATUM (MALIN HEAD).
2. THE WASTEWATER DRAINAGE SYSTEM IS TO BE CONSTRUCTED IN ACCORDANCE WITH UISCE EIREANN'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE (IW-CDS-5030-03) AND UISCE EIREANN'S WASTEWATER INFRASTRUCTURE STANDARD DETAILS (IW-CDS-5030-01).
3. CONSTRUCTION OF THE WASTEWATER DRAINAGE SYSTEM SHALL ENSURE THE REQUIRED SEPARATION DISTANCES AS SPECIFIED IN SECTION 3.5 OF IW-CDS-5030-03.
4. WASTEWATER SEWERS TO BE uPVC IN ACCORDANCE WITH SECTION 3.13 OF IW-CDS-5030-03 (TO STIFFNESS CLASS 8kN/m²) AND BE CAPABLE OF RESISTING A MAXIMUM JETTING PRESSURE OF 2,600psi WITHOUT DAMAGE)
5. MANHOLES SHALL BE AS PER STD-WW-10 AND SECTION 3.12 OF IW-CDS-5030-03.

LEGEND:

PROPOSED WASTEWATER SEWER AND MANHOLE

PROPOSED STORMWATER SEWER AND MANHOLE

Rev.	Suit.	Description	Drawn	Ch'kd	Date
P03	S3	Issued for Planning	RS	TF	04.12.25
P02	S3	Minor revisions to layout	RS	TF	22.09.25
P01	S3	Issued for Section 32B	RS	TF	19.09.25

Client

Estuary View Enterprises 2020 Ltd.

egis
info.ireland@egis-group.com
Formerly JB Barry & Partners who became part of Egis in 2023

Project

BESSBOROUGH LRD DEVELOPMENT

Drawing Title

PROPOSED DRAINAGE LAYOUT

Drawn by :	RS	Date :	19.09.25
Checked by :	TF	Date :	19.09.25
Approved by :	TF	Date :	19.09.25
Internal Project REF :	JBB: 25629		
Scales :	1:500 @ A1, 1:1000 @ A3		
Stage :	PLANNING		

Drawing No. :	Revision	Suitability Code
25629-EEI-UD-XX-DR-CE-04000	P03	S3

File Name : R:\25 Projects\25629 - Bessboro LRD Development\00 GEN\2D Drawing\25629-EEI-UD-XX-DR-CE-04000_Proposed_Drainage_Layout_P03.dwg

BIM QUALITY SHEET NO.: PIM-JBB-00-XX-TP-Z-0003

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LEGEND:

- PROPOSED WASTEWATER SEWER & MANHOLE
- EXISTING WASTEWATER SEWER
- EXISTING 350mm Ø WASTEWATER RISING MAIN
- PROPOSED STORM WATER SEWER & MANHOLE
- EXISTING STORM WATER SEWER

Rev.	Suit.	Description	Drawn	Ch'kd	Date
P03	S3	Issued for Planning	RS	TF	21.11.25
P02	S3	Location of The Meadows indicated	RS	TF	29.10.25
P01	S3	Issued for Section 32B	RS	TF	22.09.25

Client

Estuary View Enterprises 2020 Ltd.

egis
info.ireland@egis-group.com
Formerly JB Barry & Partners who became part of Egis in 2023

Project

BESSBOROUGH LRD DEVELOPMENT

Drawing Title

PROPOSED DRAINAGE CONNECTION LOCATIONS

Drawn by :	RS	Date :	22.09.25
Checked by :	TF	Date :	22.09.25
Approved by :	TF	Date :	22.09.25
Internal Project REF :	JBB: 25629		
Scales :	1:1000 @ A1		
Stage :	PLANNING		

Drawing No. :	Revision	Suitability Code
25629-EEI-UD-XX-DR-CE-04001	P03	S3

BIM QUALITY SHEET NO.: PIM-JBB-00-XX-TP-Z-0003

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NOTES:

1. THE WATER SUPPLY SYSTEM IS TO BE CONSTRUCTED IN ACCORDANCE WITH UISCE ÉIREANN'S CODE OF PRACTICE FOR WATER INFRASTRUCTURE (IW-CDS-5020-03) AND UISCE ÉIREANN'S WATER INFRASTRUCTURE STANDARD DETAILS (IW-CDS-5020-01).
2. CONSTRUCTION OF THE WATER SUPPLY SYSTEM SHALL ENSURE REQUIRED SEPARATION DISTANCES AS SPECIFIED IN SECTION 3.5 AND SECTION 3.6 OF IW-CDS-5020-03.
3. WATERMAINS TO BE HDPE SDR 17 PIPES IN ACCORDANCE WITH SECTION 3.9 OF IW-CDS-5020-03.
4. SLUICE VALVE CHAMBERS SHALL BE AS PER STD-W-15.
5. HYDRANT CHAMBERS SHALL BE AS PER STD-W-18.

LEGEND:

Proposed Watermain	
Existing Watermain	
Proposed Sluice Valve	SV
Proposed Fire Hydrant	FH
Proposed Washout Hydrant	WO
Proposed Bulk Water Meter	ME
Proposed Air Valve	AV
Proposed Scour Valve	ScV
46m Fire Hydrant Radius	

Rev.	Suit.	Description	Drawn	Ch'kd	Date
P02	S3	Issued for Section 32B	RS	TF	04.12.25
P01	**S3**	Issued for Section 32B	RS	TF	22.09.25

Client

Estuary View Enterprises 2020 Ltd.

egis
info.ireland@egis-group.com
Formerly JB Barry & Partners who became part of Egis in 2023

Project

PHASE 1 - THE FARM
BESSBOROUGH LRD DEVELOPMENT

Drawing Title

PROPOSED WATERMAINS LAYOUT

Drawn by :	RS	Date :	22.09.25
Checked by :	TF	Date :	22.09.25
Approved by :	TF	Date :	22.09.25
Internal Project REF :	JBB: 25629		
Scales :	1:500 @ A1, 1:1000 @ A3		
Stage :	PLANNING		

Drawing No.	Revision	Suitability Code
25629-EEI-UW-XX-DR-CE-03000	P02	S3

File Name : - R:\25 Projects\25629 - Bessboro LRD Development\00.GEN\2D Drawing\25629-EEI-UW-XX-DR-CE-03000_Proposed_Watermain_Layout_P02.dwg

BIM QUALITY SHEET NO.: PIM-JBB-00-XX-TP-Z-0003

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LEGEND:

- Catchment Area
- Green Roof
- Bioretention Area
- Permeable Paving
- Tree Pit

Rev.	Suit.	Description	Drawn	Ch'kd	Date
P02	S3	Issued for Planning	RS	TF	22.11.25
P01	S3	Issued for Section 32B	RS	TF	22.09.25

Client

Estuary View Enterprises 2020 Ltd.

egis
info.ireland@egis-group.com
Formerly JB Barry & Partners who became part of Egis in 2023

Project

PHASE 1 THE FARM
BESSBOROUGH LRD DEVELOPMENT

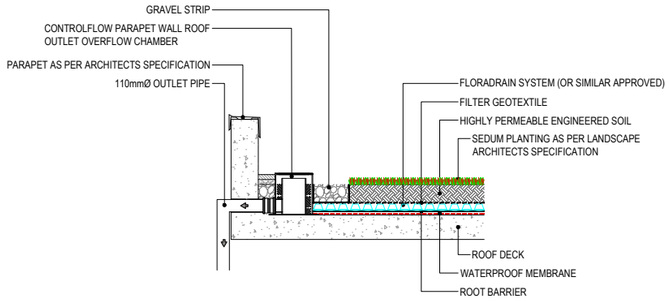
Drawing Title

PROPOSED SuDS LAYOUT

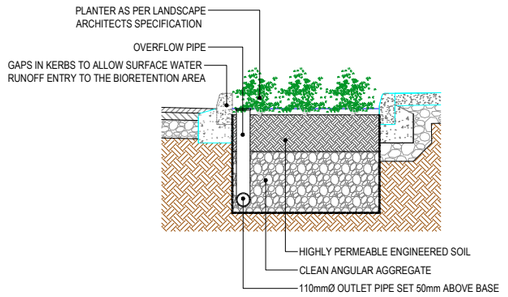
Drawn by :	RS	Date :	22.09.25
Checked by :	TF	Date :	22.09.25
Approved by :	TF	Date :	22.09.25
Internal Project REF :	JBB: 25629		
Scales :	1:500 @ A1, 1:1000 @ A3		
Stage :	PLANNING		

Drawing No. :	Revision	Suitability Code
21207-JBB-PH2-XX-DR-C-04005	P02	S3

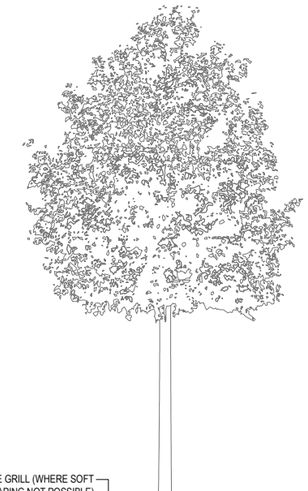
File Name : R:\25 Projects\25629 - Bessboro LRD Development\00 GEN\2D Drawing\25629-EEI-UD-XX-DR-CE-64002_Proposed_SuDS_Layout_P02.dwg

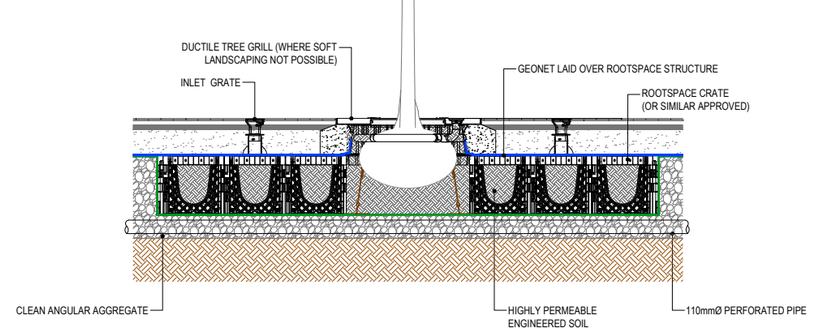


TYPICAL EXTENSIVE GREEN ROOF OUTLET
Scale: 1:25

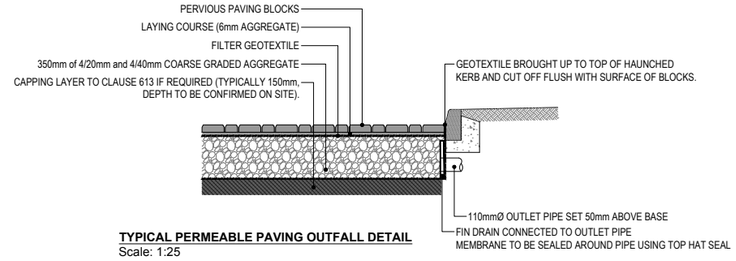


TYPICAL BIORETENTION AREA
Scale: 1:25

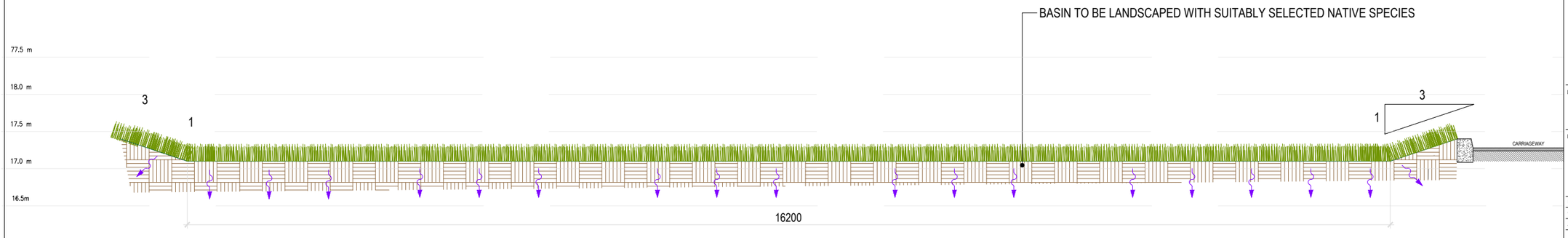




TYPICAL TREE PIT DETAIL
Scale: 1:25



TYPICAL PERMEABLE PAVING OUTFALL DETAIL
Scale: 1:25



DETENTION BASIN
1:30

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Rev.	Suit.	Description	Drawn	Ch'kd	Date
P01	S3	Issued for Planning	POKL	TF	21.11.25

Client

Estuary View Enterprises 2020 Ltd.

Clients Representative:

info.ireland@egis-group.com
Formerly JB Barry & Partners who became part of Egis in 2023

Project

PHASE 1 THE FARM
BESSBOROUGH LRD DEVELOPMENT

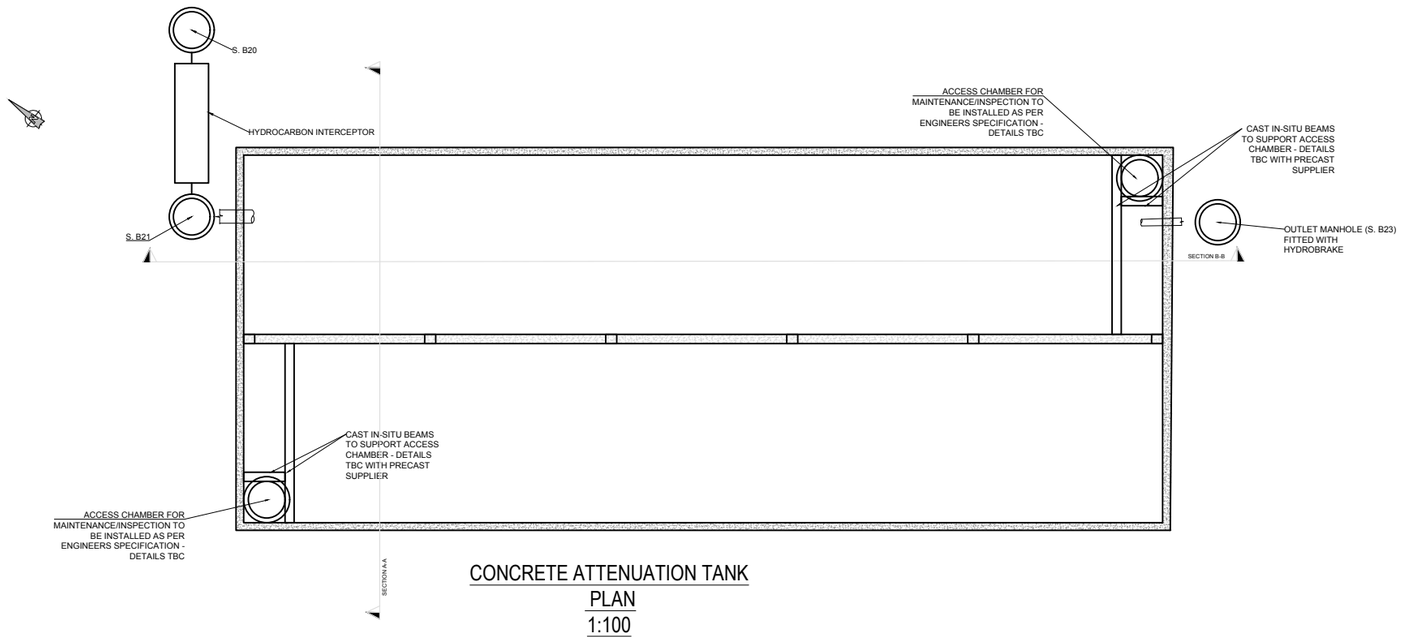
Drawing Title

PROPOSED SuDS DETAILS

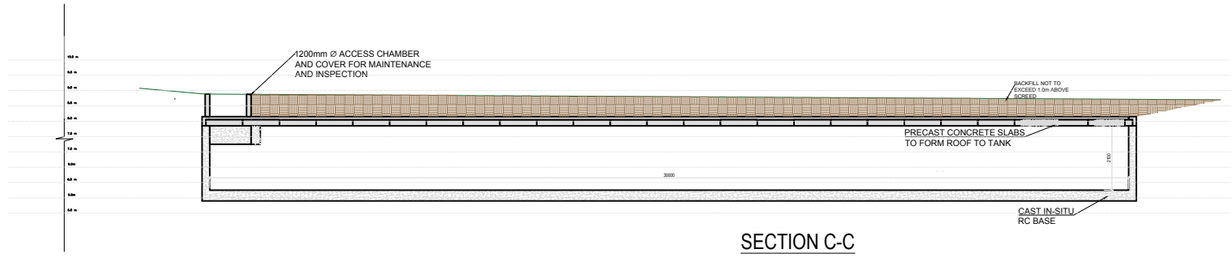
Drawn by :	RS	Date :	21.11.25
Checked by :	TF	Date :	21.11.25
Approved by :	TF	Date :	21.11.25
Internal Project REF :	25629		
Scales :	AS SHOWN		
Stage :	PLANNING		

Drawing No. :	Revision	Suitability Code
25629-EEI-UD-XX-DR-CE-04003	P01	S3

File Name : R:\25 Projects\25629 - Bessboro LRD Development\00.GEN\2D Drawing\25629-EEI-UD-XX-DR-CE-04003_SuDS_Details.dwg



CONCRETE ATTENUATION TANK
PLAN
1:100



SECTION C-C
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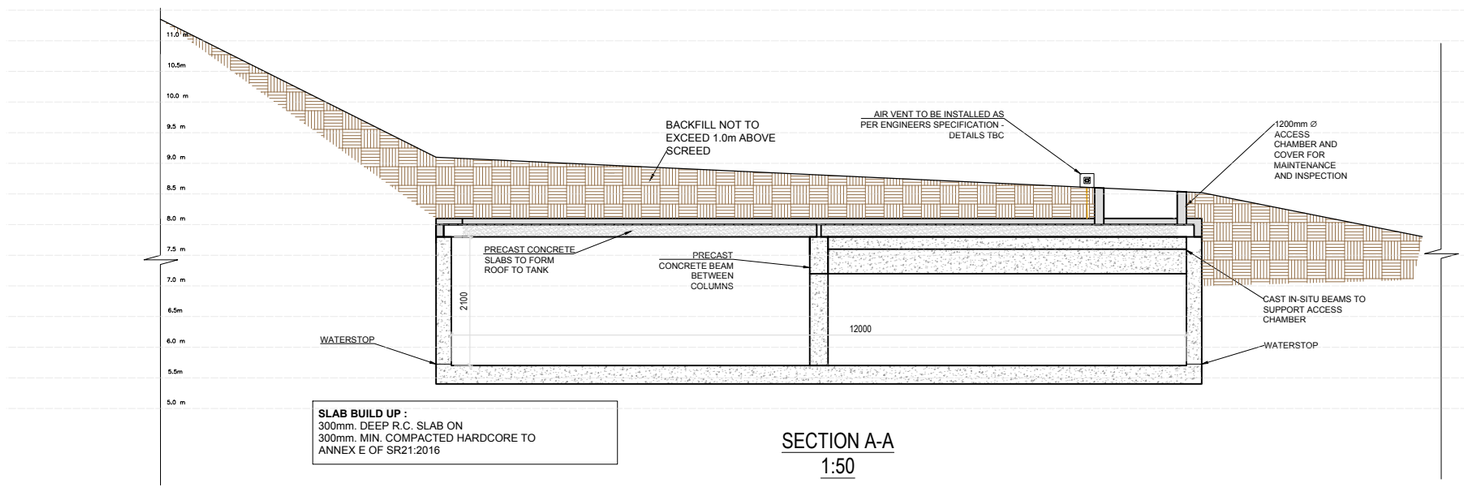

SLAB BUILD UP :
300mm. DEEP R.C. SLAB ON
300mm. MIN. COMPACTED HARDCORE TO ANNEX E OF SR21:2016

SECTION A-A
1:50

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NOTES

1. ALL LEVELS SHOWN ARE RELATIVE TO MALIN HEAD DATUM.
2. ALL LEVELS TO BE INSPECTED ON SITE AND MAXIMUM SOIL DEPTH ABOVE TANK NOT TO EXCEED 1.0m.
3. PRECAST ROOF SLABS TO BE INSTALLED AS PER SUPPLIER CONCRETE SPECIFICATIONS. ALL SLAB DIMENSIONS TO BE CHECKED ON SITE PRIOR TO INSTALLATION.
4. TANK BASE AND WALLS TO BE CONCRETE GRADE C35/45. CONCRETE EXPOSURE CLASS XA1.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS REQUIRED IN ORDER TO CONSTRUCT THE STRUCTURE WHILST MAINTAINING OVERALL STABILITY.
6. ACCESS COVERS MUST BE HEAVY DUTY, FLUSH AND INCLUDE AN INTERNAL FALL ARREST.

Rev.	Suit.	Description	Drawn	Ch'kd	Date
P01	A3	ISSUED FOR PLANNING	POKL	DK	14.11.25

Client

Estuary View Enterprises 2020 Ltd.

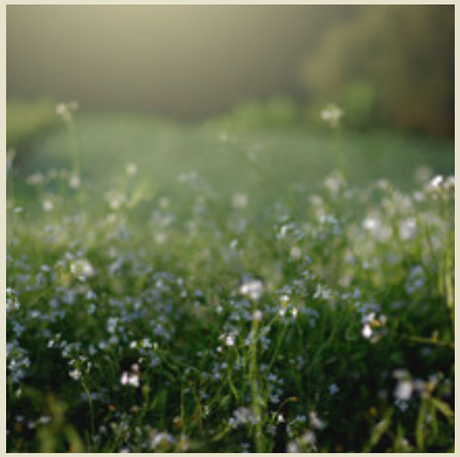
egis
info.ireland@egis-group.com
Formerly JB Barry & Partners who became part of Egis in 2023

Project
BESSBOROUGH LRD DEVELOPMENT

Drawing Title
ATTENUATION TANK DETAILS

Drawn by :	POKL	Date :	NOV 2025
Checked by :	TF	Date :	NOV 2025
Approved by :	TF	Date :	NOV 2025
Internal Project REF :	EEI : 25629		
Scales :	AS SHOWN @ A1.		
Stage :	PLANNING		

Drawing No. :	Revision	Suitability Code
25629-EEI-UD-XX-DR-CE-04010	P01	A3



BESSBOROUGH, CORK

APPENDIX 7

Land, Soils & Geology

VOLUME III | APPENDICES

BESSBOROUGH, CORK

APPENDIX 7

Land, Soils & Geology

- **Appendix 7-1 - Ground Investigation Report prepared by Priority Geotechnical Ltd, Issue date February 2022**

- Appendix 7-1 - Ground Investigation Report prepared by Priority Geotechnical Ltd, Issue date February 2022

Our Ref: JMS/Rp/P21239 + attachments (*.pdf)

16th March, 2022

JB Barry & Partners Limited
3 Eastgate Road,
Eastgate Business Park,
Little Island,
Co. Cork,
T45 KH74.

Re: Bessborough SHD Sites, Site Investigation, Factual report.

Introduction

In November 2021, Priority Geotechnical (PGL) were requested by JB Barry & Partners Limited acting on behalf of their client Estuary View Enterprises to undertake a site investigation as part of the Bessborough SHD Sites project.

Objectives

The objective of the site investigation contract is to determine the ground and groundwater conditions in order to inform the engineering design solutions for the proposed development.

Scope

The original scope of the site investigation, which was specified by JB Barry & Partners, comprised of:

- 06Nr. Cable percussion boreholes;
- Trial pits;
- Surveying of 'as-built' levels and co-ordinates;
- All associated sampling;
- All associated laboratory works;
- Associated reporting;

The final site works as completed is outlined, herein. This geotechnical data report presents the fieldworks records with regard to the site investigation for the Bessborough SHD Sites Project. The report should be read in conjunction with the exploratory records, the photographic records and the laboratory test data accompanying this report.

Site Works

This investigation was carried out in accordance with Eurocode 7- Geotechnical Design Part 2, ground investigation and testing (BS EN 1997-2: 2007) and the relevant British Standards (BS 5930 (2015) Code of Practice for Site Investigation and BS 1377, Method of Tests for Soil for Civil Engineering Purposes, *in situ* Tests Parts 1 to 9).

The direct intrusive fieldworks were undertaken from the 10th and 17th January, 2022 to under the supervision of PGL, Engineering Geologist(s). Details of the plant and equipment used are detailed on the relevant exploratory records, accompanying this report.

Cable Percussion Boreholes

Six (06) cable percussion boreholes were drilled to depths 4.4m below existing ground level (bgl) to 9.1m bgl using PGL's Dando 2000 Rig and 200mm diameter casing. The logs are accompanying this factual report.

Location	Depth (m bgl)	Date (dd/mm/yyyy)
BH01	4.4	13/01/2022
BH02	9.1	10/01/2022
BH03	8.4	12/01/2022
BH04	7.3	14/01/2022
BH05	7.4	17/01/2022
BH06	7.0	13/01/2022

Chiselling				
Location	Depth Top (m bgl)	Depth Base (m bgl)	Duration (hh:mm)	Tool
BH01	1.20	1.30	01:00	Chisel.
	4.30	4.40	01:00	Chisel.
BH02	2.75	2.90	01:00	Chisel.
	8.90	9.10	01:00	Chisel.
BH03	4.90	5.00	01:00	Chisel.
	8.30	8.40	01:00	Chisel.
BH04	3.80	4.00	01:00	Chisel.
	7.20	7.30	01:00	Chisel.
BH05	6.70	6.90	01:00	Chisel.
	7.30	7.40	01:00	Chisel.
BH06	5.75	5.95	01:00	Chisel.
	6.90	7.00	01:00	Chisel.

Trial Pits

Seven (07) trial pits were excavated to depths 0.3m bgl to 4.6m bgl using a 14t tracked excavator. The exploratory logs and photographic records accompany this factual report.

Location	Depth (m bgl)	Date (dd/mm/yyyy)
TP01	3.9	11/01/2022
TP02	3.2	10/01/2022
TP03	4.5	11/01/2022
TP04	4.5	13/01/2022
TP05	4.5	14/01/2022
TP06	0.3	12/01/2022
TP06A	4.6	12/01/2022

Sampling

A total of sixty two (62) bulk disturbed samples (B) and twenty two (22) small disturbed samples (D) were recovered from the exploratory holes in accordance with Geotechnical Investigation and Sampling – Sampling Methods and Groundwater Measurements (EN ISO 22475-1:2006).

In-Situ Testing

Standard Penetration Tests (SPT)

A total of thirty nine (39) standard penetration tests, were carried out in the cable percussion boreholes using the 60^{o} solid cone (CPT) in place of the standard split barrel sampler. The data was presented on the relevant logs accompanying this factual report.

Falling Head Tests

Two (02) *in situ* falling head permeability tests were carried out in boreholes; in accordance with BS5930: 1999, Section 4: Cl. 25.4, within the superficial deposits over duration of one (1) hour. The processed test data was presented on the relevant borehole log presented accompanying this factual report. The shape or intake factor, f was derived from the condition at the base of the borehole at the test depth and test geometry as per Hvorslev (1951).

$$k = \frac{A}{fd} \frac{\log_e (H_o / H_t)}{t}$$

Generally for all tests the specific depth range of the test was the deposits below the depth of casing. A mean k measured ($k_H = k_V$), permeability in the soil was assumed equal in both horizontal and vertical direction, ($k_H / k_V = 1.$). The test geometry provided a shape factor, f for the test undertaken in the standpipe well.

Dynamic Probing

PGL's Competitor dynamic probing rig was used to undertake dynamic probing (DP(H); 50kg drop weight, 500mm drop height) in general accordance with Geotechnical Investigation and Testing, Part 2, Dynamic probing, BS EN ISO 22476-2:2005. The blows per 100mm ($N_{100\,H}$) were recorded to refusal being 25blows without progress over 100mm. Six (06) number dynamic probes progressed to refusal at depths 2.7m bgl to 8.8m bgl. The exploratory logs accompany this factual report.

Location	Refusal depth, m bgl
DP01	3.7
DP02	8.8
DP03	2.7
DP04	5.0
DP05	3.0
DP06	3.5

Survey and Drawings

The 'as built' exploration locations were surveyed to the Ordinance Survey Irish Transverse Mercator system of co-ordinates (ITM) and elevations to Malin Head datum and shown on the relevant exploratory logs and the Exploratory Location Plans (P21239-SI-A, P21239-SI-01) accompanying this report.

Location	Easting	Northing	Ground Level (mOD)	Final Depth (m bgl)	Date Start (dd/mm/yyyy)
BH01	171820.78	70468.88	16.64	4.40	13/01/2022
BH02	171741.94	70395.18	13.07	9.10	10/01/2022
BH03	171738.42	70311.70	11.49	8.40	12/01/2022
BH04	172026.44	70364.45	12.50	7.30	14/01/2022
BH05	172034.00	70300.87	12.21	7.40	17/01/2022
BH06	171946.00	70338.05	13.57	7.00	13/01/2022
DP01	171821.58	70465.48	16.54	3.70	13/01/2022
DP02	171742.31	70392.88	12.93	8.80	13/01/2022
DP03	171735.89	70311.95	11.53	2.70	13/01/2022
DP04	172027.93	70363.86	12.40	5.00	13/01/2022
DP05	172033.97	70304.80	12.21	3.00	14/01/2022
DP06	171944.50	70343.17	13.61	3.50	13/01/2022
TP01	171822.48	70466.73	16.60	3.90	11/01/2022
TP02	171742.96	70394.13	13.04	3.20	10/01/2022
TP03	171736.67	70314.17	11.80	4.50	11/01/2022
TP04	172026.89	70362.36	12.35	4.50	13/01/2022
TP05	172033.99	70303.02	12.21	4.50	14/01/2022
TP06	171940.73	70337.93	13.69	0.30	12/01/2022
TP06A	171944.88	70339.22	13.61	4.60	12/01/2022

Laboratory Testing

Laboratory testing was ongoing at the time of reporting.

Published Geology

A search of the Geological Survey data base and 1:100,000 mapping (Sheet 25) identified two (02) major lithological units defining the area. The majority of the site is underlain by Waulsortian Limestones (WA) described as massive unbedded Lime-Mudstones. The Little Island Formation (LI) is mapped to the north and defined by massive and crinoidal fine Limestone.

Teagasc subsoil mapping indicates that the area is underlain by Made Ground deposits. The National Groundwater Vulnerability mapping indicates the area mostly has a rating of high vulnerability.

Ground and Groundwater Conditions

The full details of the ground conditions encountered are provided for on the exploratory records accompanying this report. The records provide descriptions, in accordance with BS 5930 (2015) and Eurocode 7, Geotechnical Investigation and Testing, Identification and classification of soils, Part 1, Identification and description (EN ISO 14688-1: 2002),– Identification and Classification of Soil, Part 2: Classification Principles (EN ISO 14688-2:2004) and Identification and Classification of Rock, Part 1: Identification & Description (EN ISO 14689-1:2004) of the materials encountered, *in situ* testing and details of the samples taken, together with any observations made during the ground investigation.

Groundwater levels may be subject to diurnal, seasonal and climatic variations and can also be affected by drainage conditions, tidal variations etc. Low volume groundwater flow may be cut-off by borehole casing as it progresses in stiff glacial deposits. The duration trial pit excavations remain open may not be sufficient to allow for low volume flow to present. The groundwater regime should be assessed from standpipe well installations.

Groundwater was encountered at depths 3.10m bgl to 3.90m bgl during the period of fieldworks within the extent of the borehole and pit excavations, summarised below. The exploratory locations were backfilled with grout, gravel and arisings.

SUMMARY OF GROUNDWATER

Location	Depth Strike (m bgl)	Remarks	Standpipe (Y/N)
BH01	-	None encountered.	N
BH02	-	None encountered.	Y
BH03	-	None encountered.	N
BH04	-	None encountered.	N
BH05	-	None encountered.	N
BH06	-	None encountered.	Y
TP01	-	None encountered.	N
TP02	-	None encountered.	N
TP03	-	None encountered.	N
TP04	3.9	Trickle rate of flow	N
TP05	3.9	Slow rate of flow	N
TP06	-	None encountered.	N
TP06A	3.1	Trickle rate of flow	N

Two (02) number 50mm dia. HDPE standpipe wells were constructed to allow for groundwater monitoring. The construction details are summarised below.

SUMMARY OF STANDPIPE CONSTRUCTION

Location	Depth Top (m bgl)	Depth Base (bgl)	Diameter (mm)	Pipe Type	Pipe Details
BH02	0.00	2.00	50	PLAIN	Plain.
	2.00	8.50	50	SLOTTED	Slotted.
BH06	0.00	3.50	50	PLAIN	Plain.
	3.50	7.00	50	SLOTTED	Slotted.

Exploratory locations were backfilled with their arisings or gravel and bentonite for locations with monitoring wells. Backfill details are displayed graphically on the accompanying logs and summarised below.

SUMMARY OF STANDPIPE DIPS

Location	08/02/2022
	Depth (m bgl)
BH02	Dry
BH06	4.4

SUMMARY OF BACKFILL

GRAVEL Backfill to installation/borehole

ARISINGS Backfill

uPVC slotted pipe

BENTONITE Backfill to installation

Should you have any queries in relation to the data collected and presented herein, please do not hesitate to contact our office.

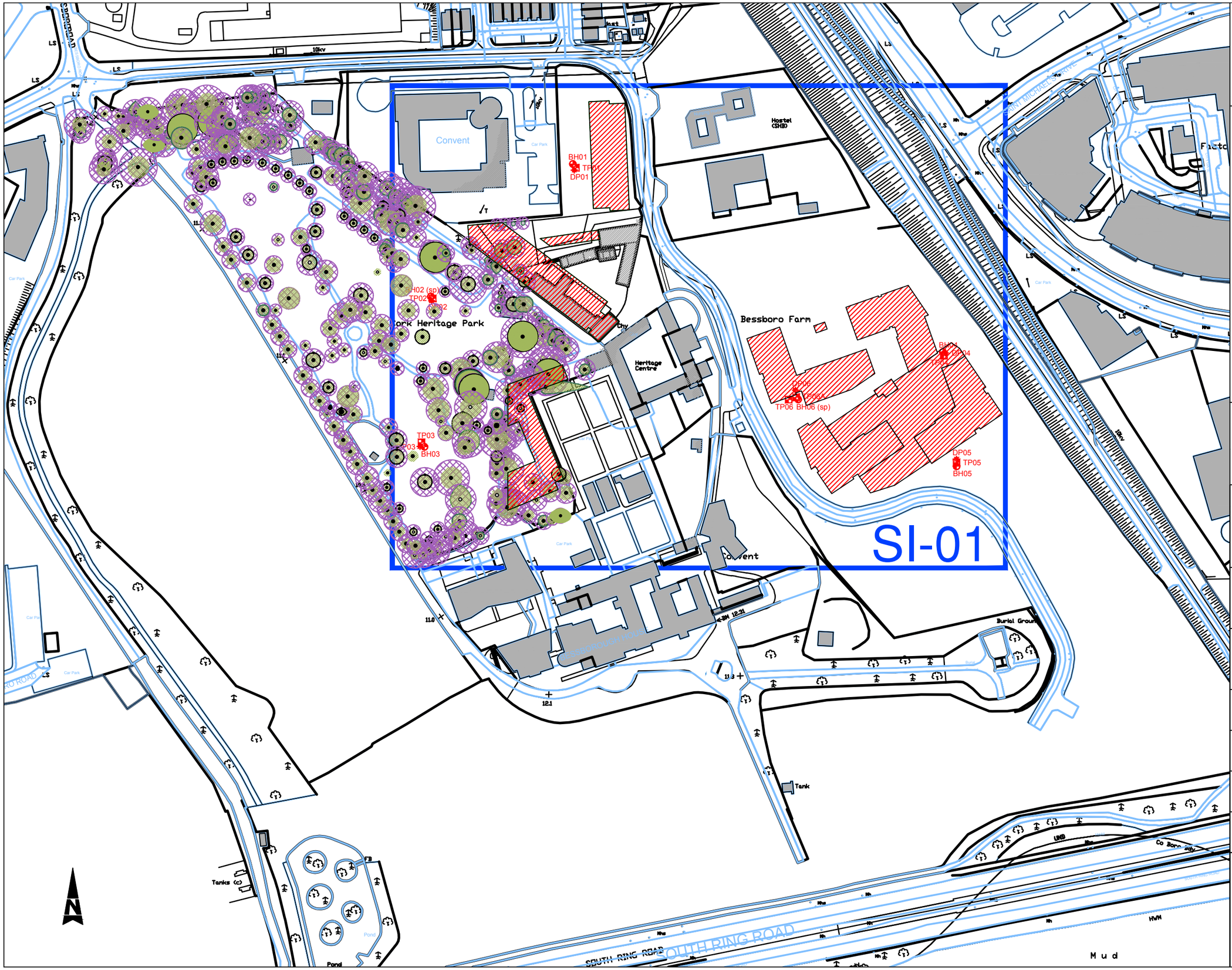
Yours sincerely,
For **Priority Geotechnical,**

James McSweeney BSc
Engineering Geologist

No responsibility can be held by PGL for ground conditions between exploratory locations. The exploratory logs provide for ground profiles and configuration of strata relevant to the investigation depths achieved during the fieldworks. Caution shall be taken when extrapolating between such exploratory locations. No liability is accepted for ground conditions extraneous to the exploratory locations.

No account has been taken of potential subsidence or ground movement due to mineral extraction, mining works or karstification below or in proximity to the site, unless specifically addressed.

This report has been prepared for Employer and their Representative as outline, herein. The information should not be used without their prior written permission. PGL accepts no responsibility or liability for this document being used other than for the purposes for which it was intended.



JOB NAME:

Bessborough SHD

Sheet Title:

EXPLORATORY LOCATION LAYOUT

JOB NUMBER:

P21239

DRAWING NUMBER:

P21239-SI-A

DRAWN BY:

Gary Curtin

DATE:

08/12/2021

SCALE:	APPROVED:
1:2000 ON A3	GH

REVISION:

D01

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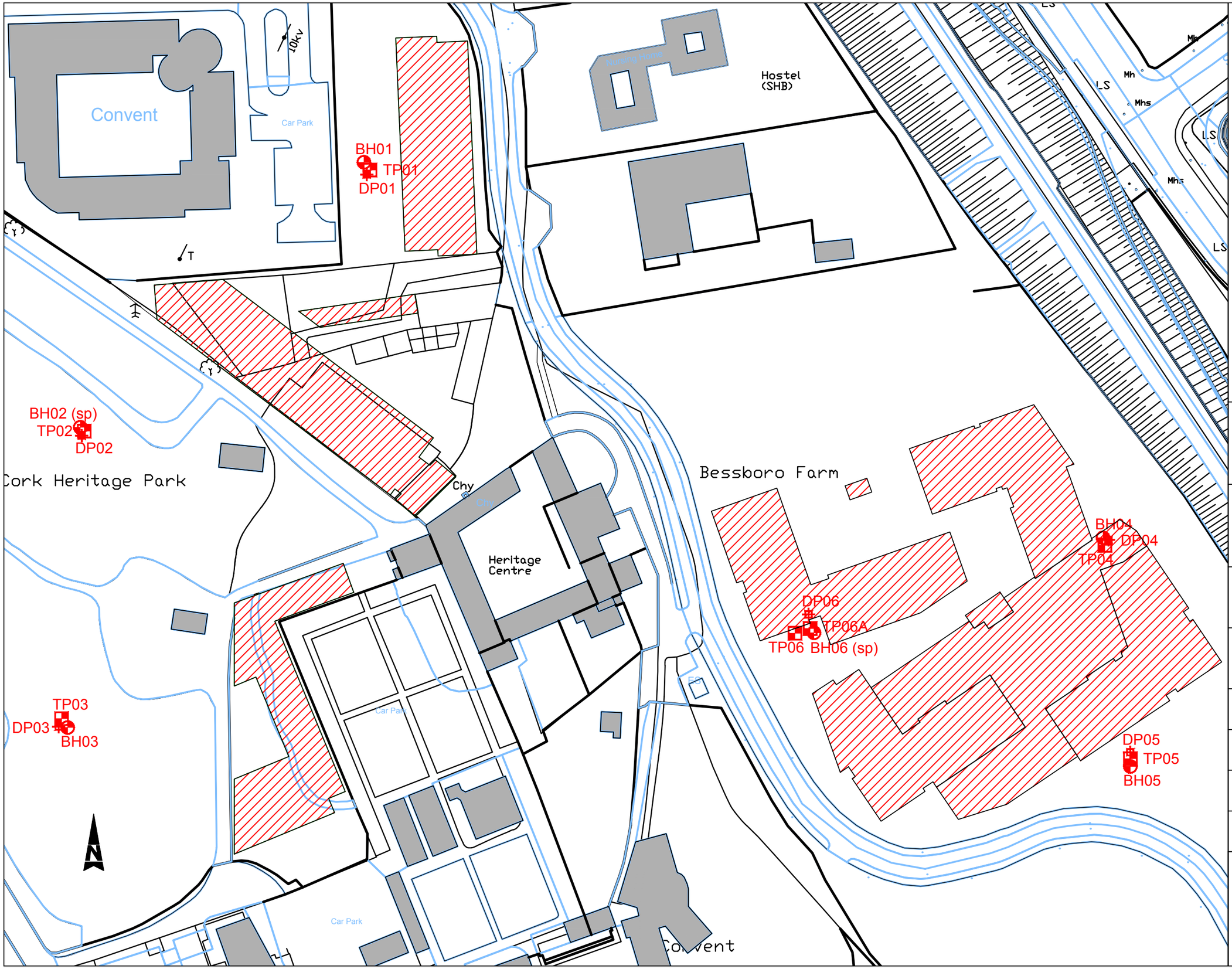

KEY:

TP00 Denotes Trial Pit location

BH00 Denotes Borehole location

DP00 Denotes Dynamic Probe location

Coordinates shown on ING.

JOB NAME:

Bessborough SHD

Sheet Title:

EXPLORATION LOCATION PLAN

JOB NUMBER:

P21239

DRAWING NUMBER:

P21239-SI-01

DRAWN BY:

Gary Curtin

DATE:

05/12/2021

SCALE:

1:1000 ON A3

APPROVED:

GH

REVISION:

D01

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KEY TO SYMBOLS ON EXPLORATORY HOLE RECORDS

All linear dimensions are in metres or millimetres

DESCRIPTIONS

**	Drillers Description
Friable	Easily crumbled

SAMPLES

U( )	Undisturbed 102mm diameter sample, ( ) denotes number of blows to drive sampler
U( )F, U( )P	F- not recovered, P-partially recovered
U38	Undisturbed 38mm diameter sample
P(F), (P)	Piston sample - disturbed
B	Bulk sample - disturbed
D	Jar Sample - disturbed
W	Water Sample
CBR	California Bearing Ratio mould sample
ES	Chemical Sample for Contamination Analysis
SPTLS	Standard Penetration Test S lump sample from split sampler

CORE RECOVERY AND ROCK QUALITY

TCR	Total Core Recovery (% of Core Run)
SCR	Solid Core Recovery (length of core having at least one full diameter as % of core run)
RQD	Rock Quality Designation (length of solid core greater than 100mm as % of core run)
Where there is insufficient space for the TCR, SCR and RQD, the results may be found in the remarks column	
If	Fracture Spacing in mm (Minimum/Average/Maximum) NI - non intact, NR - no recovery
AZCL	Assumed Zone of Core Loss
NI	Non intact

GROUNDWATER

▽	Groundwater strike
▼	Groundwater level after standing period
Date/Water	Date of shift (day/month)/Depth to water at end of previous shift shown above the date and depth to water at beginning of shift given below the date

INSITU TESTING

S	Standard Penetration Test - split barrel sampler
C	Standard Penetration Test - solid 60° cone
SW	Self Weight Penetration
Ivp, HVp (R)	In Situ Vane Test, Hand Vane Test (R) demonstrates remoulded strength
K(F), (C), (R), (P)	Permeability Test
HP	Hand Penetrometer Test

MEASURED PROPERTIES

N	Standard Penetration Test - blows required to drive 300mm after seating drive
x/y	Denotes x blows for y mm within the Standard Penetration Test
x*/y	Denotes x blows for y mm within the seating drive
c_u	Undrained Shear Strength (kN/m^2)
CBR	California Bearing Ratio

ROTARY DRILLING SIZES

Index Letter	Nominal Diameter (mm)	
	Borehole	Core
N	75	54
H	99	76
P	120	92
S	146	113

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Key Sheet

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Drilled By	Borehole No.
PC	BH01
Logged By	Sheet 1 of 1
CS	

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	171821E - 70469N	**Hole Type** CP
Location:	Mahon, Cork		**Level:**	16.64 m OD	**Scale** 1:50
Client:	Estuary View Ent. Ltd		**Date:**	13/01/2022 - 14/01/2022	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing			Depth (m bgl)	Level (mOD)	Legend	Stratum Description
		Depth (m bgl)	Type	Results				
		0.00 - 1.00	B					Brown red, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Driller describes: Fill clay with limestone boulders.
		1.00 - 2.00 1.00	B SPT (C)	65 (5,10/65 for 150mm)	1.00	15.64		Firm, brown red, slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular, limestone with dia 63-80mm. *1.20m - 1.30m: Driller noted: Boulders. Increased SPT blow counts locally.*
		2.00 - 3.00 2.00	B SPT (C)	N=15 (3,3/4,4,3,4)				
		3.00 - 4.00 3.00	B SPT (C)	N=15 (3,3/4,4,3,4)	3.00	13.64		Firm, brown red, slightly sandy slightly gravelly CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-rounded, limestone with dia 63-120mm. Driller describes: Hard gravelly clay with boulders.
		4.00	SPT (C)	90 (9,10/90 for 225mm)				
					4.40	12.24		End of Borehole at 4.400m

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				None encountered.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
4.40	200	200

Equipment: Dando 2000

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool
1.20	1.30	01:00	Chisel.
4.30	4.40	01:00	Chisel.

Remarks:

Cable percussion borehole terminated at 4.40m bgl.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	13/01/2022 08:00	0.00	Start of shift.
Dry	13/01/2022 18:00	2.00	End of shift.
Dry	14/01/2022 08:00	2.00	Start of shift.
Dry	14/01/2022 18:00	4.40	End of borehole.

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Drilled By	Borehole No.
PC	**BH02**
Logged By	Sheet 1 of 1
CS	

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	171742E - 70395N	**Hole Type** CP
Location:	Mahon, Cork		**Level:**	13.07 m OD	**Scale** 1:50
Client:	Estuary View Ent. Ltd		**Date:**	10/01/2022 - 11/01/2022	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing: Depth (m bgl)	Type	Results	Depth (m bgl)	Level (mOD)	Legend	Stratum Description
		0.00 - 1.00	B					Brown red, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Driller describes: Gravel clay.
		1.00 - 2.00 1.00	B SPT (C)	N=6 (1,1/1,1,2,2)	1.00	12.07		Soft, brown red, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Driller describes: Gravelly clay.
		2.00 - 3.00 2.00	B SPT (C)	N=7 (1,1/1,2,2,2)				*2.00m - 3.00m: Driller noted: Boulders.*
		3.00 - 4.00 3.00	B SPT (C)	N=12 (3,3/2,3,3,4)	3.00	10.07		Firm to stiff, brown red, slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-rounded, Limestone with dia 63-170mm dia.
		4.00 - 5.00 4.00	B SPT (C)	N=21 (4,4/5,5,6,5)				
		5.00 - 6.00 5.00	B SPT (C)	N=24 (5,6/5,6,7,6)	5.00	8.07		Stiff, brown red, slightly sandy slightly gravelly CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-rounded, limestone with dia 63-170. Driller describes: boulders.
		6.00 - 7.00 6.00	B SPT (C)	N=29 (6,6/7,7,8,7)				
		7.00 - 8.00 7.00	B SPT (C)	N=33 (7,7/8,8,9,8)				
		8.00	SPT (C)	N=32 (7,8/9,5,9,9)				
					9.10	3.97		End of Borehole at 9.100m

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				None encountered.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
9.10	200	200

Equipment: Dando 2000.

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool
2.75	2.90	01:00	Chisel.
8.90	9.10	01:00	Chisel.

Remarks:
Cable percussion borehole terminated at 9.10m bgl.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	10/01/2022 08:00	0.00	Start of shift.
	10/01/2022 18:00	0.00	End of shift.
	11/01/2022 08:00	0.00	Start of shift.
Dry	11/01/2022 18:00	9.10	End of borehole.

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Drilled By	Borehole No.
PC	**BH03**
Logged By	Sheet 1 of 1
CS	

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	171738E - 70312N	**Hole Type** CP
Location:	Mahon, Cork		**Level:**	11.49 m OD	**Scale** 1:50
Client:	Estuary View Ent. Ltd		**Date:**	12/01/2022 - 12/01/2022	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing: Depth (m bgl)	Type	Results	Depth (m bgl)	Level (mOD)	Legend	Stratum Description
		0.00 - 1.00	B					Soft becoming firm, brown red, slightly sandy slightly gravelly CLAY.
		1.00 - 2.00 1.00	B SPT (C)	N=7 (1,1/1,2,2,2)				
		2.00 - 3.00 2.00	B SPT (C)	N=7 (1,1/2,2,1,2)				
		3.00 - 4.00 3.00	B SPT (C)	N=10 (2,3/3,2,3,2)				
		4.00 - 5.00 4.00	B SPT (C)	N=20 (3,4/4,5,5,6)	4.00	7.49		Stiff, brown red, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse.
		5.00 - 6.00 5.00	B SPT (C)	N=26 (6,7/6,6,7,7)	5.00	6.49		Stiff, brown red, slightly sandy slightly gravelly CLAY with low cobble content. Cobbles are sub-angular to sub-rounded, Limestone with dia 63-80mm.
		6.00 - 7.00 6.00	B SPT (C)	N=28 (7,6/6,8,7,7)	6.00	5.49		Stiff, brown red, slightly sandy slightly gravelly CLAY with low cobble content. Cobbles are sub-angular to sub-rounded, Limestone with dia 63-80mm.
		7.00 - 8.00 7.00	B SPT (C)	N=34 (7,8/8,9,8,9)				*6.00m - 8.40m: Driller noted Boulder content.*
		8.00 - 8.40 8.00	B SPT (C)	40 (9,10/40 for 150mm)				
					8.40	3.09		End of Borehole at 8.400m

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				None encountered.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
8.40	200	200

Equipment: Dando 2000.

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool
4.90	5.00	01:00	Chisel.
8.30	8.40	01:00	Chisel.

Remarks:
Cable percussion borehole terminated at 8.40m bgl.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	12/01/2022 08:00	0.00	Start of shift.
Dry	12/01/2022 18:00	8.40	End of borehole.

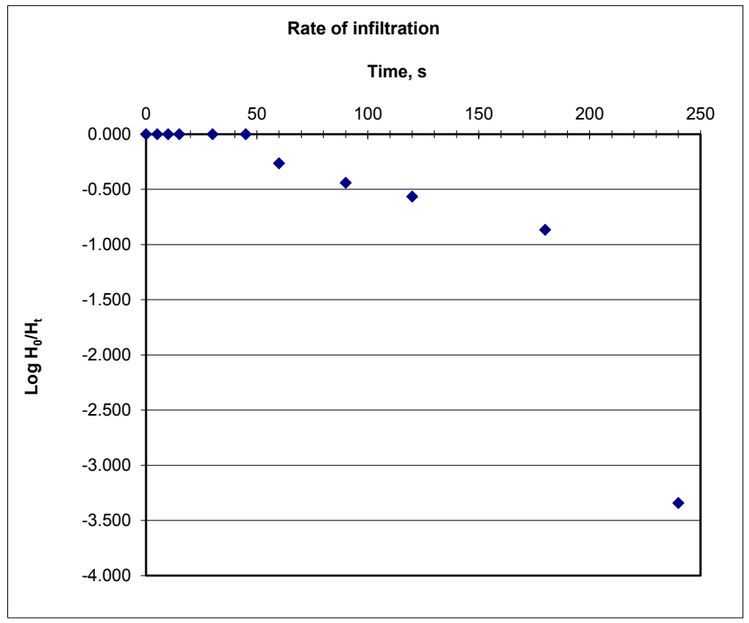
P21239 Falling head permeability test

Location	**Bessborough SHD**		
BH ID	**BH03**	$H_{w/}H_o$	**2.20**
Test	**1**		
Casing diameter	**200** mm		
Casing depth	**2.00** m		
Borehole depth	**2.20** m		
GW Influence	**2.20** m bgl		
Date	**12/01/2022**		

Min	Sec	depth, m bgl	vol, cu.m	H_t	log H_0/H_t
0	0	0.000	0.00000	2.200	0.000
0.083	5	0.000	0.00000	2.200	0.000
0.17	10	0.000	0.00000	2.200	0.000
0.25	15	0.000	0.00000	2.200	0.000
0.5	30	0.000	0.00000	2.200	0.000
0.75	45	0.000	0.00000	2.200	0.000
1	60	1.000	0.03140	1.200	-0.263
1.5	90	1.400	0.04396	0.800	-0.439
2	120	1.600	0.05024	0.600	-0.564
3	180	1.900	0.05966	0.300	-0.865
4	240	2.199	0.06905	0.001	-3.342

k_{mean} **1.12E-03 ms^{-1}**

$k_H = k_V$



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Drilled By PC
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Borehole No. **BH04** Sheet 1 of 1

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	172026E - 70364N	**Hole Type** CP
Location:	Mahon, Cork		**Level:**	12.50 m OD	**Scale** 1:50
Client:	Estuary View Ent. Ltd		**Date:**	14/01/2022 - 14/01/2022	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing: Depth (m bgl)	Type	Results	Depth (m bgl)	Level (mOD)	Legend	Stratum Description	
								Dark brown, slightly sandy slightly gravelly SILT with plant material.	
		1.00 - 2.00 1.00	B SPT (C)	N=9 (1,1/2,2,3,2)	1.00	11.50		Firm, dark brown, slightly sandy slightly gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse.	1
		2.00 - 3.00 2.00	B SPT (C)	N=9 (2,2/2,3,2,2)	2.00	10.50		Firm, brown, slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular to sub-rounded, Limestone with dia 63-120mm.	2
		3.00 - 4.00 3.00	B SPT (C)	N=14 (2,3/3,4,3,4)	3.00	9.50		Firm to stiff, brown, slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular to sub-rounded, Limestone with dia 63-120mm. Driller describes: boulders.	3
		4.00 - 5.00 4.00	B SPT (C)	N=22 (4,4/5,6,5,6)					4
		5.00 - 6.00 5.00	B SPT (C)	N=29 (6,5/7,7,8,7)	5.00	7.50		Stiff, brown, slightly sandy slightly gravelly silty CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular to sub-rounded, Limestone with dia 63-70mm. Boulders are sub-rounded, Limestone with dia 200.	5
		6.00 - 7.00 6.00	B SPT (C)	N=37 (7,8/8,9,9,11)	6.00	6.50		Stiff, brown, slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular to sub-rounded, Limestone with dia 63-90mm.	6
		7.00	SPT (C)	75 (10,15/75 for 150mm)					7
					7.30	5.20		End of Borehole at 7.300m	8
									9

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				None encountered.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
7.30	200	200

Equipment: Dando 2000.

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool
3.80	4.00	01:00	Chisel.
7.20	7.30	01:00	Chisel.

Remarks:

Cable percussion borehole terminated at 7.30m bgl.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	14/01/2022 08:00	0.00	Start of shift.
Dry	14/01/2022 18:00	7.30	End of borehole.

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Drilled By	Borehole No.
PC	**BH05**
Logged By	Sheet 1 of 1
CS	

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	172034E - 70301N	**Hole Type** CP
Location:	Mahon, Cork		**Level:**	12.21 m OD	**Scale** 1:50
Client:	Estuary View Ent. Ltd		**Date:**	17/01/2022 - 17/01/2022	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing: Depth (m bgl)	Type	Results	Depth (m bgl)	Level (mOD)	Legend	Stratum Description
		0.00 - 1.00	B					Firm becoming stiff, brown red, slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
		1.00 - 2.00 1.00	B SPT (C)	N=8 (1,1/2,2,2,2)				
		2.00 - 3.00	B					
		3.00	SPT (C)	N=13 (2,3/3,4,3,3)				
		4.00 - 5.00 4.00	B SPT (C)	N=16 (3,4/3,4,4,5)				
		5.00 - 6.00 5.00	B SPT (C)	N=30 (5,6/7,7,8,8)	5.00	7.21		Stiff, brown red, slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular to sub-rounded, 63-120mm dia., Limestone lithology.
		6.00 - 7.00 6.00	B SPT (C)	N=38 (7,8/9,9,10,10)	6.00	6.21		Stiff, brown red, slightly sandy slightly gravelly CLAY with low cobble content and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub--rounded. Cobbles are sub-angular to sub-rounded, 63-120mm dia., Limestone lithology. Boulders are sub-angular, 200-250mm dia., Limestone lithology.
		7.00	SPT (C)	90 (9,10/90 for 225mm)				
					7.40	4.81		End of Borehole at 7.400m

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				None encountered.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
7.40	200	200

Equipment: Dando 2000

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool
6.70	6.90	01:00	Chisel.
7.30	7.40	01:00	Chisel.

Remarks:
Cable percussion borehole terminated at 7.40m bgl, obstruction.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	17/01/2022 08:00	0.00	Start of shift.
Dry	17/01/2022 18:00	7.40	End of borehole.

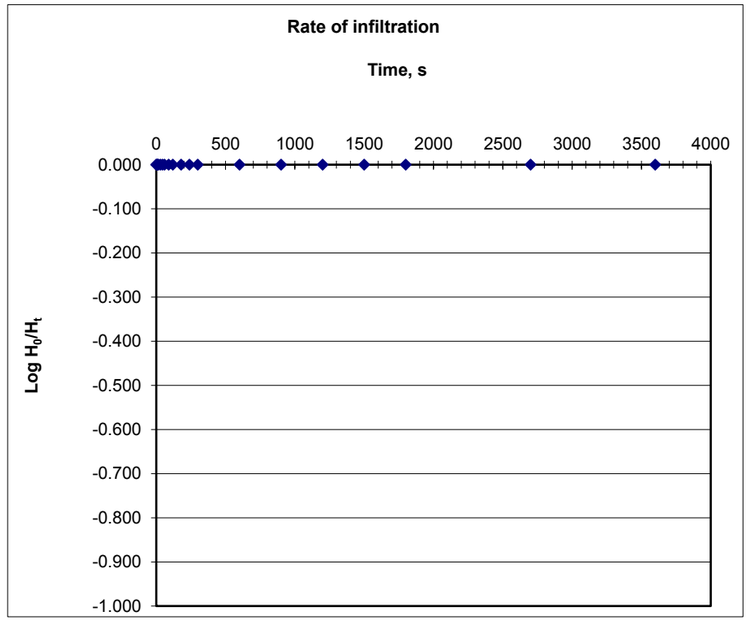
P21239 Falling head permeability test

Location	**Bessborough SHD**		
BH ID	**BH05**	H_w / H_o	**2.00**
Test	**1**		
Casing diameter	**200** mm		
Casing depth	**1.50** m		
Borehole depth	**2.00** m		
GW Influence	**2.00** m bgl		
Date	**17/01/2022**		

Min	Sec	depth, m bgl	vol, cu.m	H_t	log H_0/H_t
0	0	0.000	0.00000	2.000	0.000
0.083	5	0.000	0.00000	2.000	0.000
0.17	10	0.000	0.00000	2.000	0.000
0.25	15	0.000	0.00000	2.000	0.000
0.5	30	0.000	0.00000	2.000	0.000
0.75	45	0.000	0.00000	2.000	0.000
1	60	0.000	0.00000	2.000	0.000
1.5	90	0.000	0.00000	2.000	0.000
2	120	0.000	0.00000	2.000	0.000
3	180	0.000	0.00000	2.000	0.000
4	240	0.000	0.00000	2.000	0.000
5	300	0.000	0.00000	2.000	0.000
10	600	0.000	0.00000	2.000	0.000
15	900	0.000	0.00000	2.000	0.000
20	1200	0.000	0.00000	2.000	0.000
25	1500	0.000	0.00000	2.000	0.000
30	1800	0.000	0.00000	2.000	0.000
45	2700	0.000	0.00000	2.000	0.000
60	3600	0.000	0.00000	2.000	0.000

k_{mean} - ms^{-1}

$k_H = k_V$



Notes:
No Change in groundwater level observed after 60 mins. Infiltration rate mot determined.

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Drilled By	Borehole No.
PC	**BH06**
Logged By	Sheet 1 of 1
CS	

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	171946E - 70338N	**Hole Type** CP
Location:	Mahon, Cork		**Level:**	13.57 m OD	**Scale** 1:50
Client:	Estuary View Ent. Ltd		**Date:**	13/01/2022 - 13/01/2022	

Well Backfill	Water Strike (m bgl)	Sample and In Situ Testing: Depth (m bgl)	Type	Results	Depth (m bgl)	Level (mOD)	Legend	Stratum Description
		0.00 - 1.00	B					Brown, CLAY.
		1.00 - 2.00 1.00	B SPT (C)	N=6 (1,1/2,2,1,1)	1.00	12.57		Soft becoming stiff, brown red, slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded.
		2.00 - 3.00 2.00	B SPT (C)	N=8 (1,1/2,2,2,2)				
		3.00 - 4.00 3.00	B SPT (C)	N=9 (2,2/3,2,2,2)				
		4.00 - 5.00 4.00	B SPT (C)	N=13 (3,2/3,3,4,3)				*4.00m - 6.00m: Driller described: 'wet' soils.*
		5.00 - 6.00 5.00	B SPT (C)	N=28 (4,6/6,7,7,8)				
		6.00 - 7.00 6.00	B SPT (C)	N=33 (7,7/8,8,9,8)	6.00	7.57		Stiff, brown red, slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded. Cobbles are sub-angular, limestone with dia 63-130mm.
					7.00	6.57		End of Borehole at 7.000m

Groundwater:

Struck (m bgl)	Rose to (m bgl)	After (mins)	Sealed (m bgl)	Comment
				None encountered.

Hole Information:

Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
7.00	200	200

Equipment: Dando 2000.

Chiselling Details:

Top (m)	Base (m)	Duration (hh:mm)	Tool
5.75	5.95	01:00	Chisel.
6.90	7.00	01:00	Chisel.

Remarks:
Cable percussion borehole terminated at 7.0m bgl.

Shift Data:

GW (m bgl)	Shift	Depth (m bgl)	Remarks
	13/01/2022 08:00	0.00	Start of shift.
Dry	13/01/2022 18:00	7.00	End of borehole.

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Trial Pit No	
TP01	
Sheet 1 of 1	

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	171822E - 70467N	**Date** 11/01/2022
Location:	Mahon, Cork		**Level:**	16.60m OD	**Scale** 1:25
Client:	Estuary View Ent. Ltd		**Dimensions (m):**	3.60 x 1.10	**Logged** OD
			Depth:	3.90m BGL	

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.20	16.40		(TOPSOIL) Soft to firm, brown, slightly sandy slightly gravelly SILT with grass and rootlets. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded.
							(MADE GROUND) Soft to firm, brown, slightly sandy slightly gravelly CLAY with pottery fragments, blocks, timber and plastics. Sand is fine to coarse, Gravel is fine to coarse, sub-rounded to rounded.
	0.70 - 1.50 0.70 - 1.50	B D		0.65	15.95		Soft to firm becoming stiff from 2.80m, brown, slightly sandy slightly gravelly CLAY with medium cobble content and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded. Boulders sub-rounded to rounded. (Assumed Natural).
	1.50 - 2.50 1.50 - 2.50	B D					
	2.50 - 3.50 2.50 - 3.50	B D					
				3.90	12.70		End of Pit at 3.900m

Stability: Good
Plant: 14T track machine
Backfill: Arisings.

Groundwater: None encountered.

Remarks: Trial pit terminated at 3.90m bgl on rock/ large boulders.

Photographic Record

Number:	**TP01**	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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Trial Pit No **TP02** Sheet 1 of 1

Project Name: Bessboro SHD	**Project No.** P21239	**Co-ords:** 171743E - 70394N **Level:** 13.04m OD	**Date** 10/01/2022
Location: Mahon, Cork		**Dimensions (m):** 3.20 x 1.00	**Scale** 1:25
Client: Estuary View Ent. Ltd		**Depth:** 3.20m BGL	**Logged** OD

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.30	12.74		(TOPSOIL) Soft to firm, brown, slightly sandy slightly gravelly SILT with grass and rootlets. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded.
	0.50 - 1.00 0.50 - 1.00	B D					(MADE GROUND) Soft to firm, light brown, slightly sandy slightly gravelly SILT with medium cobble content, medium boulder content and pottery fragments. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to rounded. Cobbles are angular to sub-rounded. Boulders are angular to sub-rounded.
	1.20 - 2.30 1.20 - 2.30	B D		1.20	11.84		Soft, light purple brown, slightly gravelly silty SAND. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to rounded.
	2.30 - 3.20 2.30 - 3.20	B D		2.30	10.74		Soft to firm, purple brown, slightly sandy gravelly CLAY with medium cobble content and medium boulder content. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded. Boulders are sub-rounded to rounded.
				3.20	9.84		End of Pit at 3.200m

Stability: Poor
Plant: 14T track machine
Backfill: Arisings.

Groundwater: None encountered.

Remarks: Trial pit terminated at 3.20m bgl due to collapsing walls.

Photographic Record

Number: TP02	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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Trial Pit No **TP03** Sheet 1 of 1

Project Name: Bessboro SHD	**Project No.** P21239	**Co-ords:** 171737E - 70314N **Level:** 11.80m OD	**Date** 11/01/2022
Location: Mahon, Cork		**Dimensions (m):** 3.80 x 1.20	**Scale** 1:25
Client: Estuary View Ent. Ltd		**Depth:** 4.50m BGL	**Logged** OD

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.35	11.45		(TOPSOIL) Soft, dark brown, slightly sandy slightly gravelly SILT with grass and rootlets. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to rounded.
	0.50 - 1.50 0.50 - 1.50	B D					(MADE GROUND) Soft to firm, purple brown, slightly sandy gravelly CLAY with medium cobble content and rare pottery and glass fragments. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded.
	1.50 - 2.50 1.50 - 2.50	B D		1.10	10.70		(ASSUMED NATURAL) Soft to firm, purple brown, slightly sandy gravelly CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded.
	2.50 - 3.50 2.50 - 3.50	B D					
	3.50 - 4.50 3.50 - 4.50	B D					
				4.50	7.30		End of Pit at 4.500m

1 2 3 4 5

Stability: Moderate
Plant: 14T track machine
Backfill: Arisings.

Groundwater: None encountered.

Remarks: Trial pit terminated 4.50m bgl, scheduled depth.

Photographic Record

Number:	**TP03**	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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Trial Pit No **TP04** Sheet 1 of 1

Project Name: Bessboro SHD	**Project No.** P21239	**Co-ords:** 172027E - 70362N **Level:** 12.35m OD	**Date** 13/01/2022
Location: Mahon, Cork		**Dimensions (m):** 3.60 x 1.10	**Scale** 1:25
Client: Estuary View Ent. Ltd		**Depth:** 4.50m BGL	**Logged** OD

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.30	12.05		(TOPSOIL) Soft to firm, brown, slightly sandy slightly gravelly SILT with grass and rootlets. Sand is fine to coarse. Gravel is fine to medium, sub-angular to sub-rounded.
	0.50 - 1.50 0.50 - 1.50	B D					(MADE GROUND): Soft, brown slightly silty slightly gravelly SAND with plastic waste. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded.
				0.70	11.65		(ASSUMED NATURAL): Soft, brown, slightly silty slightly gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded.
	1.50 - 2.50 1.50 - 2.50	B D		1.50	10.85		Soft to firm, slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded.
	2.50 - 3.50 2.50 - 3.50	B D					
▼	3.50 - 4.50 3.50 - 4.50	B D					
				4.50	7.85		End of Pit at 4.500m

Stability: Moderate
Plant: 14T track machine
Backfill: Arisings.

Groundwater: 3.90m: Trickle rate of flow

Remarks: Trial pit terminated at 4.50m bgl, scheduled depth.

Photographic Record

Number:	**TP04**	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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Trial Pit No **TP05** Sheet 1 of 1

Project Name: Bessboro SHD	**Project No.** P21239	**Co-ords:** 172034E - 70303N **Level:** 12.21m OD	**Date** 14/01/2022
Location: Mahon, Cork		**Dimensions (m):** 4.10 x 1.20	**Scale** 1:25
Client: Estuary View Ent. Ltd		**Depth:** 4.50m BGL	**Logged** OD

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.30	11.91		(TOPSOIL) Soft to firm, brown, slightly sandy slightly gravelly SILT with grass and rootlets. Sand is fine to coarse. Gravel is fine to medium, sub-angular to sub-rounded.
							(MADE GROUND) Soft to firm, brown orange, slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded.
	0.70 - 1.50 0.70 - 1.50	B D		0.70	11.51		Firm to stiff, purple brown, slightly sandy slightly gravelly CLAY with medium cobble content and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded. Boulders are sub-rounded to rounded. (Assumed Natural).
	1.50 - 2.50 1.50 - 2.50	B D					
	2.50 - 3.50 2.50 - 3.50	B D					
▼	3.50 - 4.50 3.50 - 4.50	B D					
				4.50	7.71		End of Pit at 4.500m

1 2 3 4 5

Stability: Good
Plant: 14T track machine
Backfill: Arisings.

Groundwater: 3.90m: Slow rate of flow

Remarks: Trial pit terminated at 4.50m bgl, scheduled depth.

Photographic Record

Number:	**TP05**	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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Trial Pit No **TP06** Sheet 1 of 1

Project Name: Bessboro SHD	**Project No.** P21239	**Co-ords:** 171941E - 70338N **Level:** 13.69m OD	**Date** 12/01/2022
Location: Mahon, Cork		**Dimensions (m):** 3.40 x 1.10	**Scale** 1:25
Client: Estuary View Ent. Ltd		**Depth:** 0.30m BGL	**Logged** OD

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.15	13.54		(TOPSOIL) Soft to firm, slightly sandy slightly gravelly SILT with grass and rootlets.
				0.30	13.39		(MADE GROUND) Firm to stiff, light blue grey, slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular.
							Concrete Slab - drain/sewer access cover.
							End of Pit at 0.300m

1 2 3 4 5

Stability: Good
Plant: 14T track machine
Backfill: Arisings.

Groundwater: None encountered.

Remarks: Trial pit terminated at 0.30m bgl, due to encountering a concrete slab covering an apparent un-used drain. Pit relocated.

Photographic Record

Number: TP06	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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Trial Pit No **TP06A** Sheet 1 of 1

Project Name: Bessboro SHD	**Project No.** P21239	**Co-ords:** 171945E - 70339N **Level:** 13.61m OD	**Date** 12/01/2022
Location: Mahon, Cork		**Dimensions (m):** 3.80 x 1.10	**Scale** 1:25
Client: Estuary View Ent. Ltd		**Depth:** 4.60m BGL	**Logged** OD

Water Strike & Backfill	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m OD)	Legend	Stratum Description
				0.10	13.51		(TOPSOIL) Soft to firm, slightly sandy slightly gravelly SILT with grass and rootlets.
	0.50 - 1.45 0.50 - 1.45	B D					(MADE GROUND) Soft to firm, slightly sandy slightly gravelly CLAY with low cobble content and waste (pottery fragments, glass, plastics). Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded.
				1.45	12.16		
	1.50 - 2.50 1.50 - 2.50	B D					Soft to firm, slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded. Cobbles are sub-rounded to rounded.
▼	2.50 - 3.50 2.50 - 3.50	B D					
	3.50 - 4.50 3.50 - 4.50	B D					
				4.60	9.01		End of Pit at 4.600m

Stability: Good
Plant: 14T track machine
Backfill: Arisings.

Groundwater: 3.10m: Trickle rate of flow

Remarks: Trial pit terminated at 4.60m bgl, scheduled depth.

Photographic Record

Number:	**TP06A**	**Project** Bessborough SHD **Project No** P21239 **Engineer** J.B. Barry & Partners	

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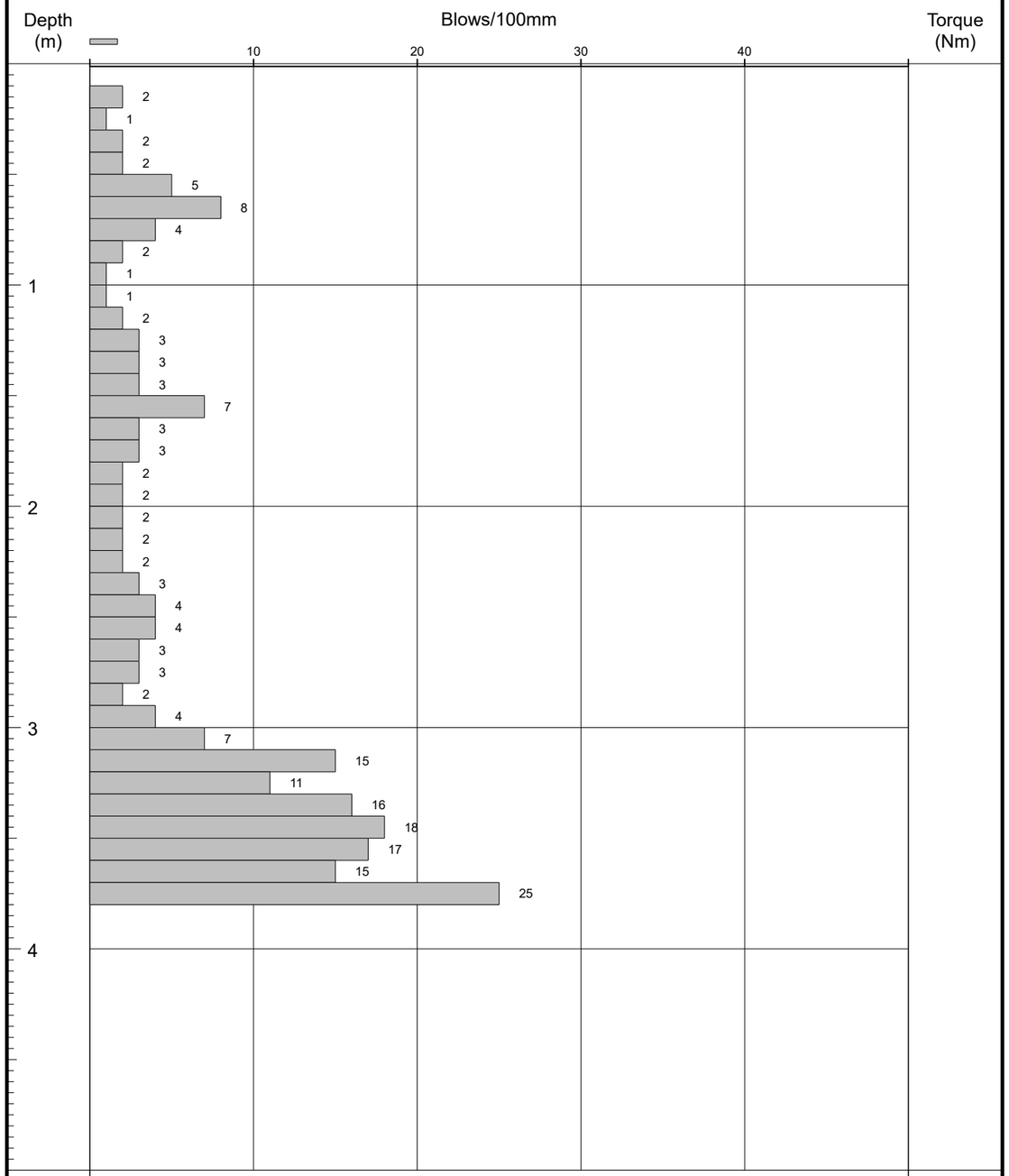
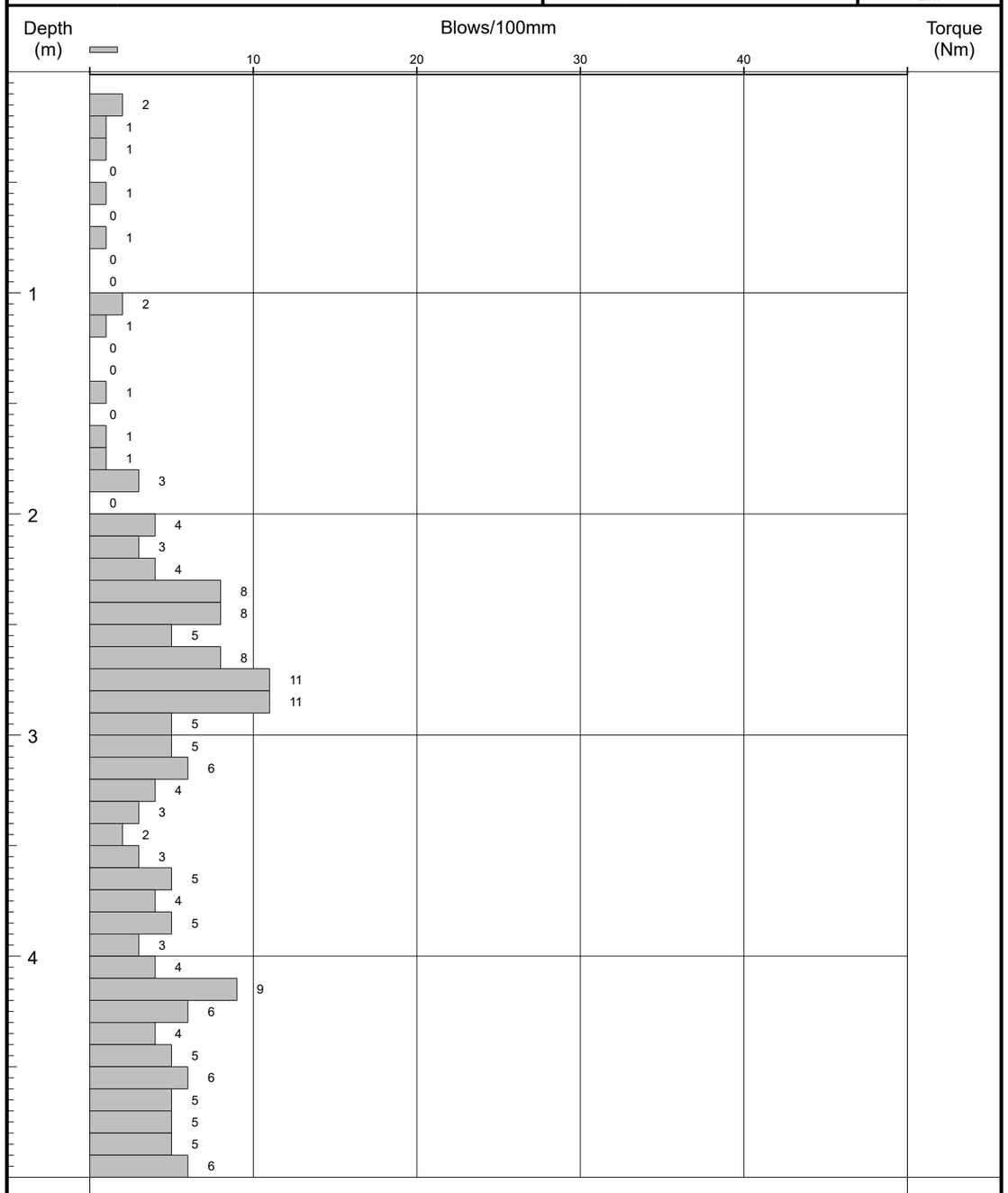
Probe No **DP01**
Sheet 1 of 1

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	171822E - 70465N	**Hole Type** DP
Location:	Mahon, Cork		**Level:**	16.54m OD	**Scale** 1:25
Client:	Estuary View Ent. Ltd		**Dates:**	13/01/2022	**Logged By** LM



Remarks: Dynamic probe terminated at 3.70m bgl, refusal.	**Fall Height (mm):** 500	**Cone Base Dia. (mm):** 45	
	Hammer Mass (Kg): 50.0	**Cone Angle (Deg):** 90	
	Probe Type: DPH	**Final Depth (m bgl):** 3.70	

pgl priority geotechnical	Priority Geotechnical Ltd. Tel: 021 4631600 Fax: 021 4638690 www.prioritygeotechnical.ie			Probe No **DP02** Sheet 1 of 2
Project Name: Bessboro SHD		**Project No.** P21239	**Co-ords:** 171742E - 70393N	**Hole Type** DP
Location: Mahon, Cork			**Level:** 12.93m OD	**Scale** 1:25
Client: Estuary View Ent. Ltd			**Dates:** 13/01/2022	**Logged By** LM



Remarks:					
Dynamic probe terminated at 8.80m bgl, refusal.	**Fall Height (mm):**	500	**Cone Base Dia. (mm):**	45	
	Hammer Mass (Kg):	50.0	**Cone Angle (Deg):**	90	
	Probe Type:	DPH	**Final Depth (m bgl):**	8.80	

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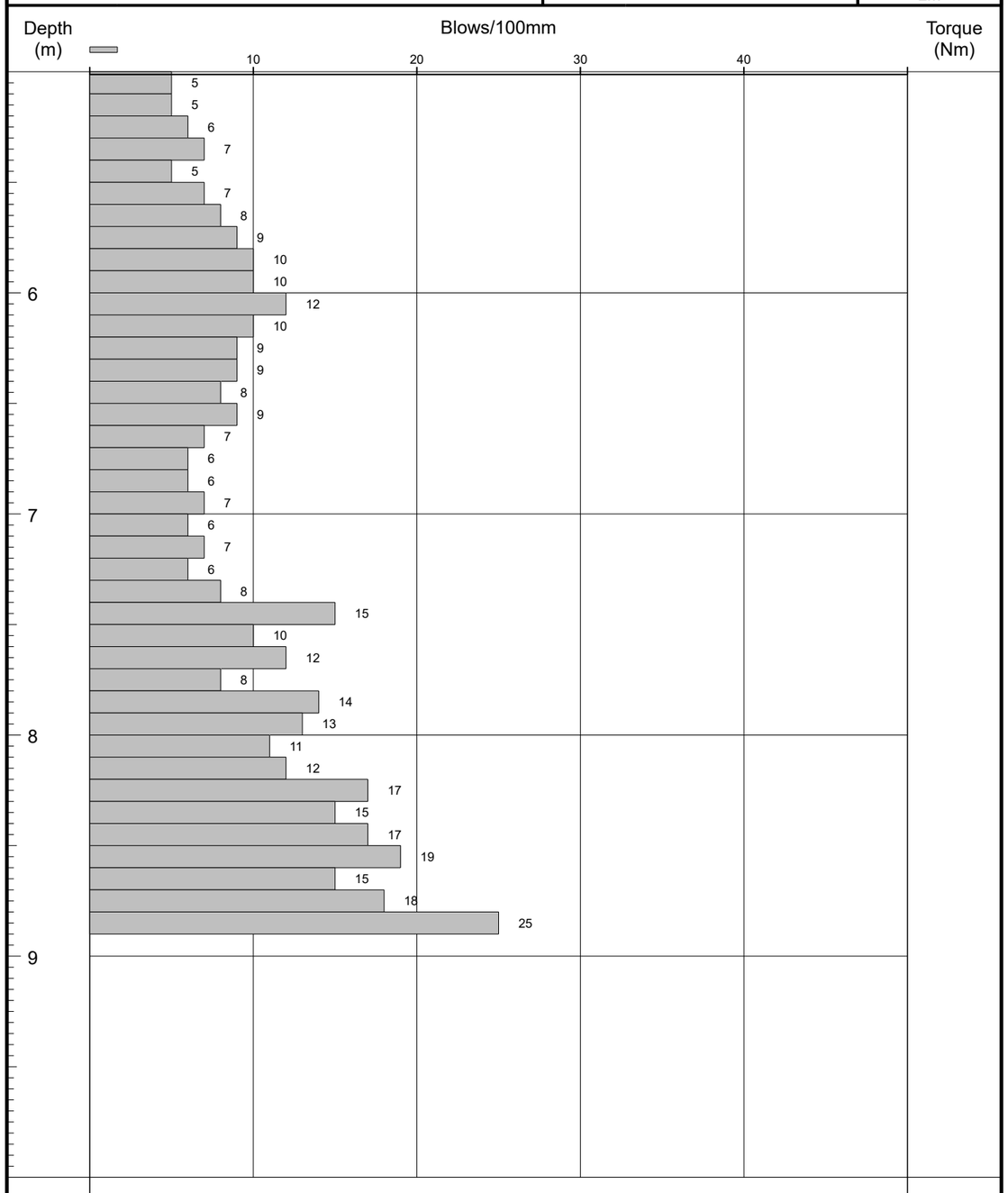
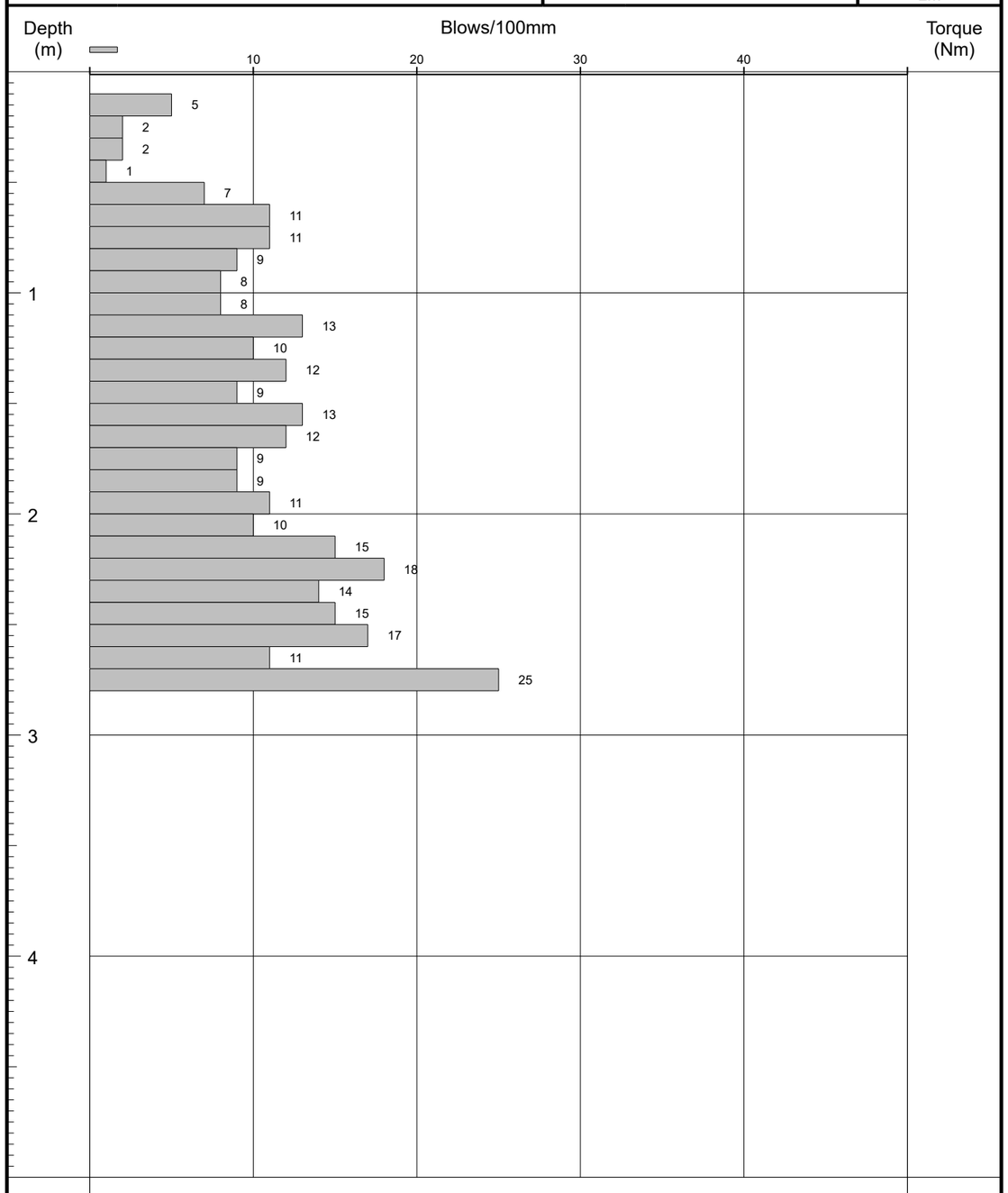
Project Name: Bessboro SHD		**Project No.** P21239	**Co-ords:** 171742E - 70393N	**Hole Type** DP
Location: Mahon, Cork			**Level:** 12.93m OD	**Scale** 1:25
Client: Estuary View Ent. Ltd			**Dates:** 13/01/2022	**Logged By** LM



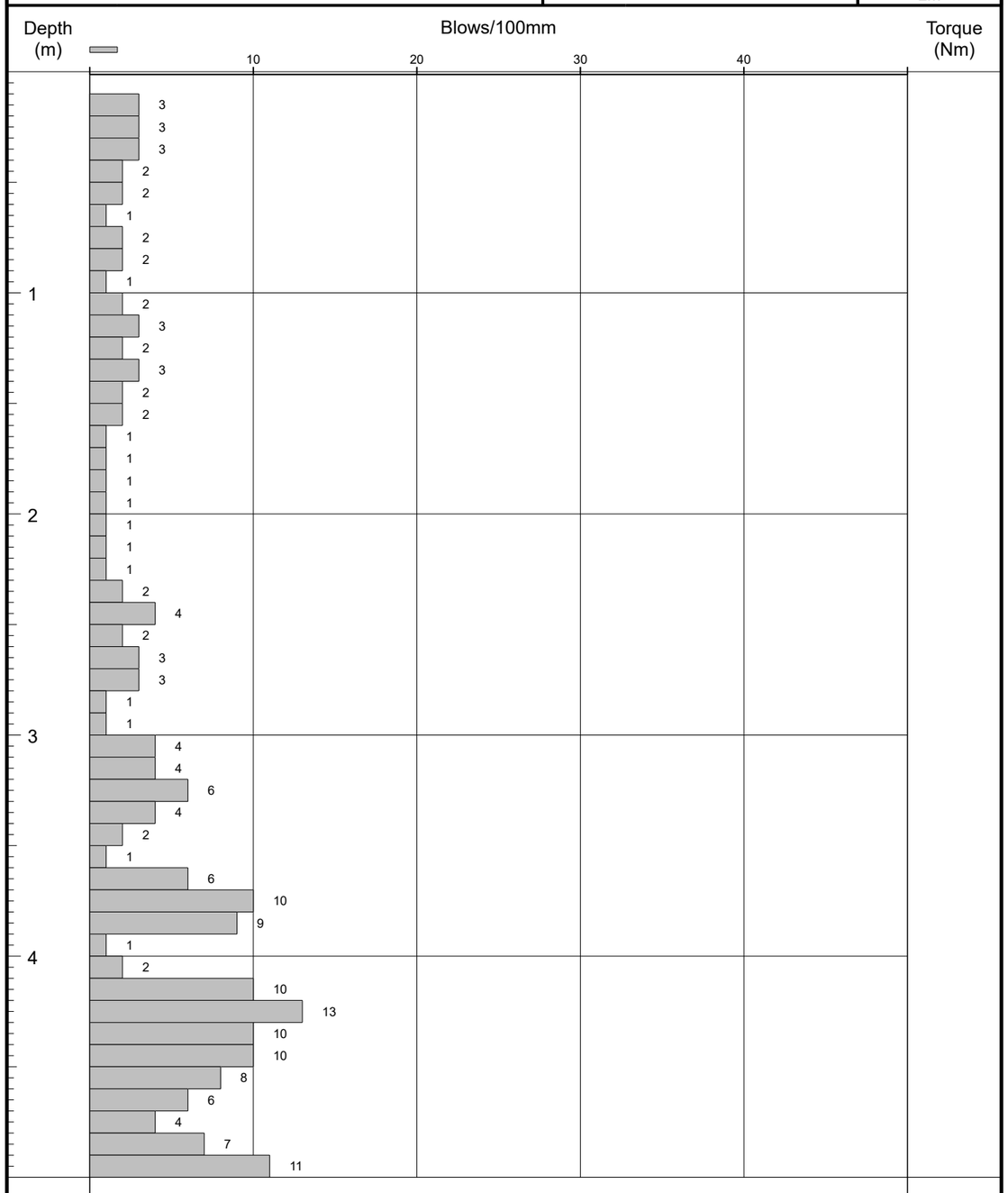
Remarks:					
Dynamic probe terminated at 8.80m bgl, refusal.	**Fall Height (mm):**	500	**Cone Base Dia. (mm):**	45	
	Hammer Mass (Kg):	50.0	**Cone Angle (Deg):**	90	
	Probe Type:	DPH	**Final Depth (m bgl):**	8.80	

pgl priority geotechnical	Priority Geotechnical Ltd. Tel: 021 4631600 Fax: 021 4638690 www.prioritygeotechnical.ie			Probe No **DP03** Sheet 1 of 1
Project Name: Bessboro SHD		**Project No.** P21239	**Co-ords:** 171736E - 70312N	**Hole Type** DP
Location: Mahon, Cork			**Level:** 11.53m OD	**Scale** 1:25
Client: Estuary View Ent. Ltd			**Dates:** 13/01/2022	**Logged By** LM



Remarks: Dynamic probe terminated at 2.70m bgl, refusal.	**Fall Height (mm):** 500	**Cone Base Dia. (mm):** 45	
	Hammer Mass (Kg): 50.0	**Cone Angle (Deg):** 90	
	Probe Type: DPH	**Final Depth (m bgl):** 2.70	

pgl priority geotechnical	Priority Geotechnical Ltd. Tel: 021 4631600 Fax: 021 4638690 www.prioritygeotechnical.ie			Probe No **DP04** Sheet 1 of 2
Project Name: Bessboro SHD		**Project No.** P21239	**Co-ords:** 172028E - 70364N	**Hole Type** DP
Location: Mahon, Cork			**Level:** 12.40m OD	**Scale** 1:25
Client: Estuary View Ent. Ltd			**Dates:** 13/01/2022	**Logged By** LM



Remarks: Dynamic probe terminated at 5.00m bgl, refusal.	**Fall Height (mm):** 500	**Cone Base Dia. (mm):** 45	
	Hammer Mass (Kg): 50.0	**Cone Angle (Deg):** 90	
	Probe Type: DPH	**Final Depth (m bgl):** 5.00	

Priority Geotechnical Ltd. **Tel: 021 4631600** **Fax: 021 4638690** **www.prioritygeotechnical.ie**		Probe No **DP04** Sheet 2 of 2

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	172028E - 70364N	**Hole Type** DP
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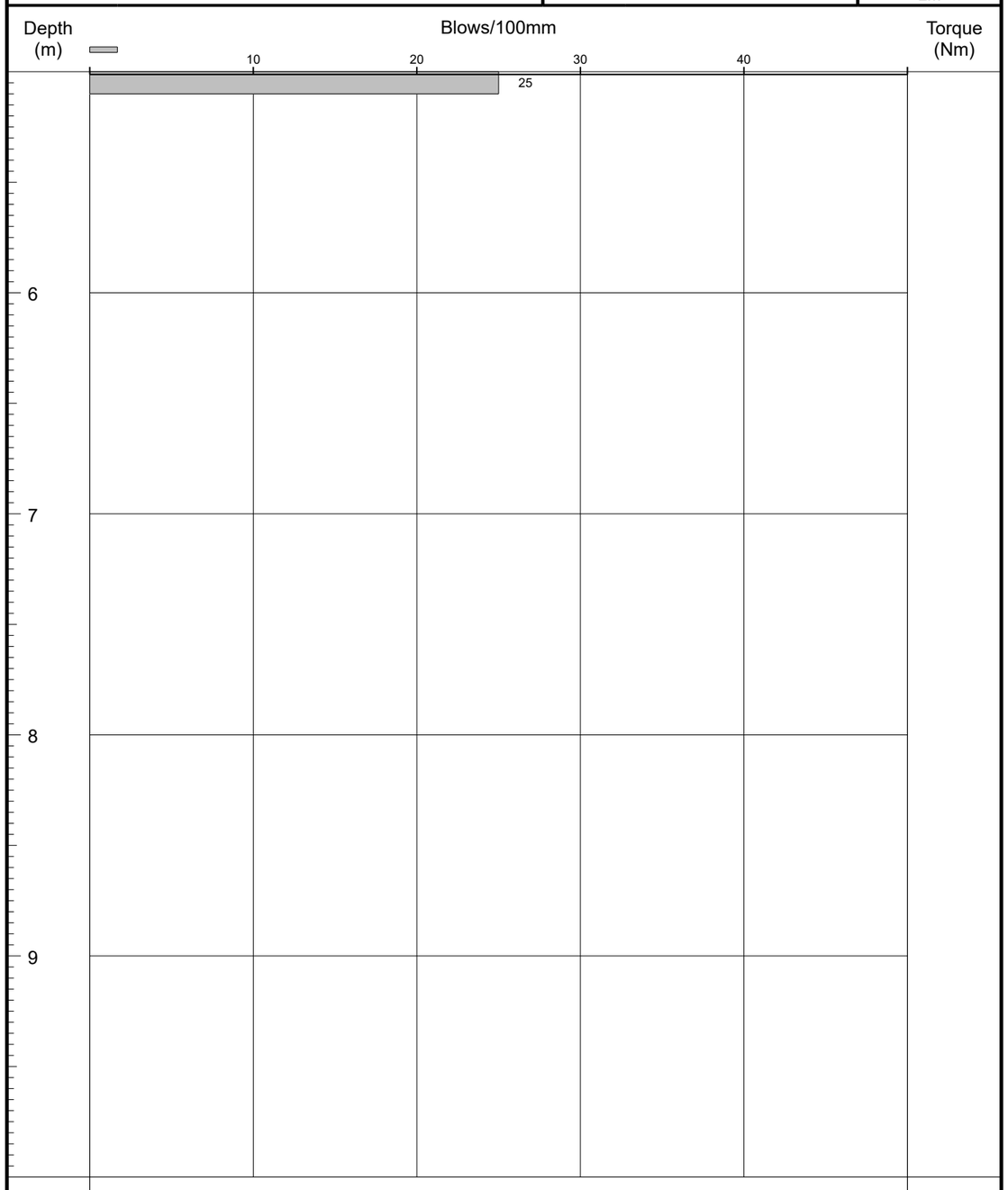
Client:	Estuary View Ent. Ltd		**Dates:**	13/01/2022	**Logged By** LM



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Priority Geotechnical Ltd. **Tel: 021 4631600** **Fax: 021 4638690** **www.prioritygeotechnical.ie**		Probe No **DP05** Sheet 1 of 1

Project Name:	Bessboro SHD	**Project No.** P21239	**Co-ords:**	172034E - 70305N	**Hole Type** DP
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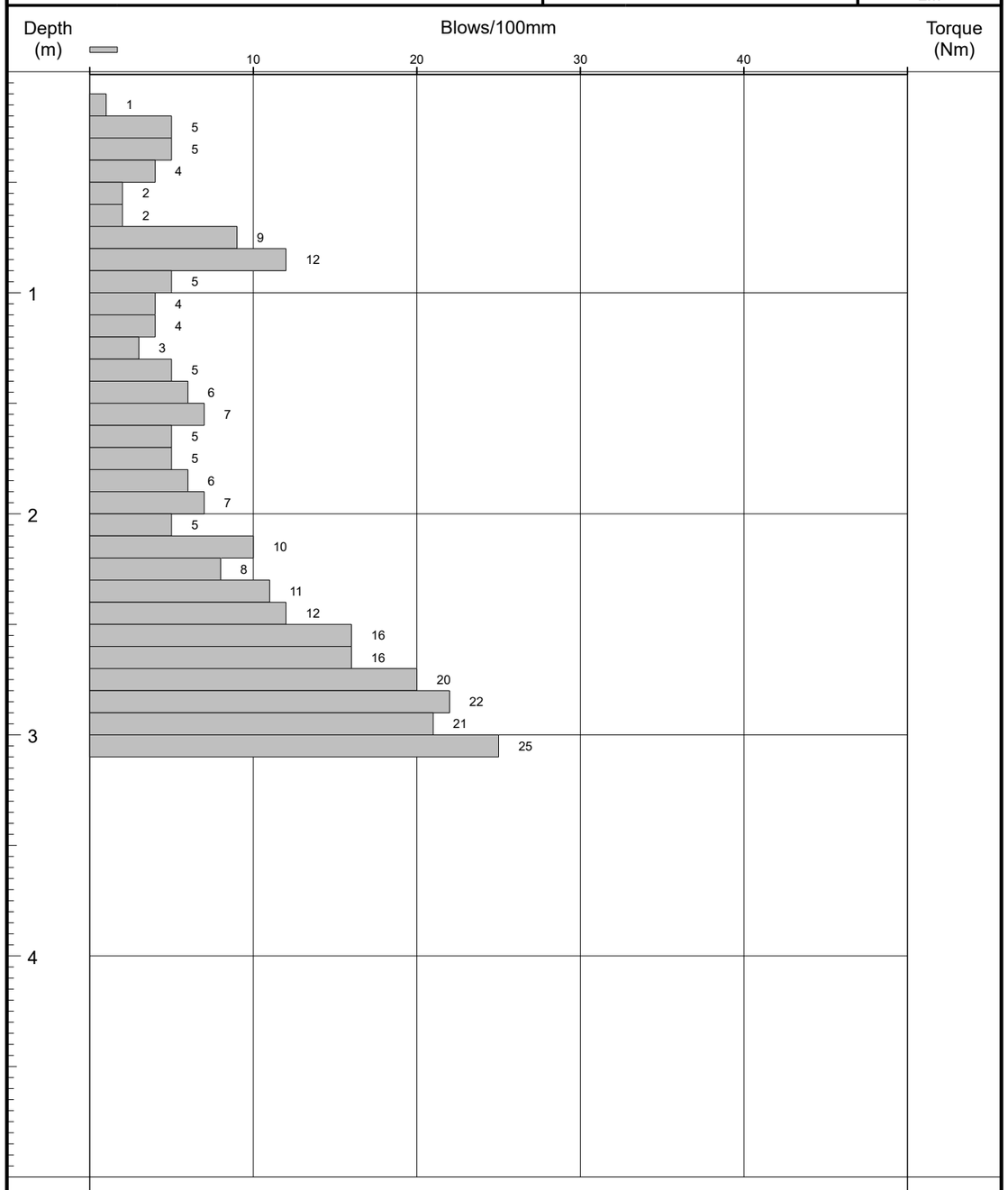

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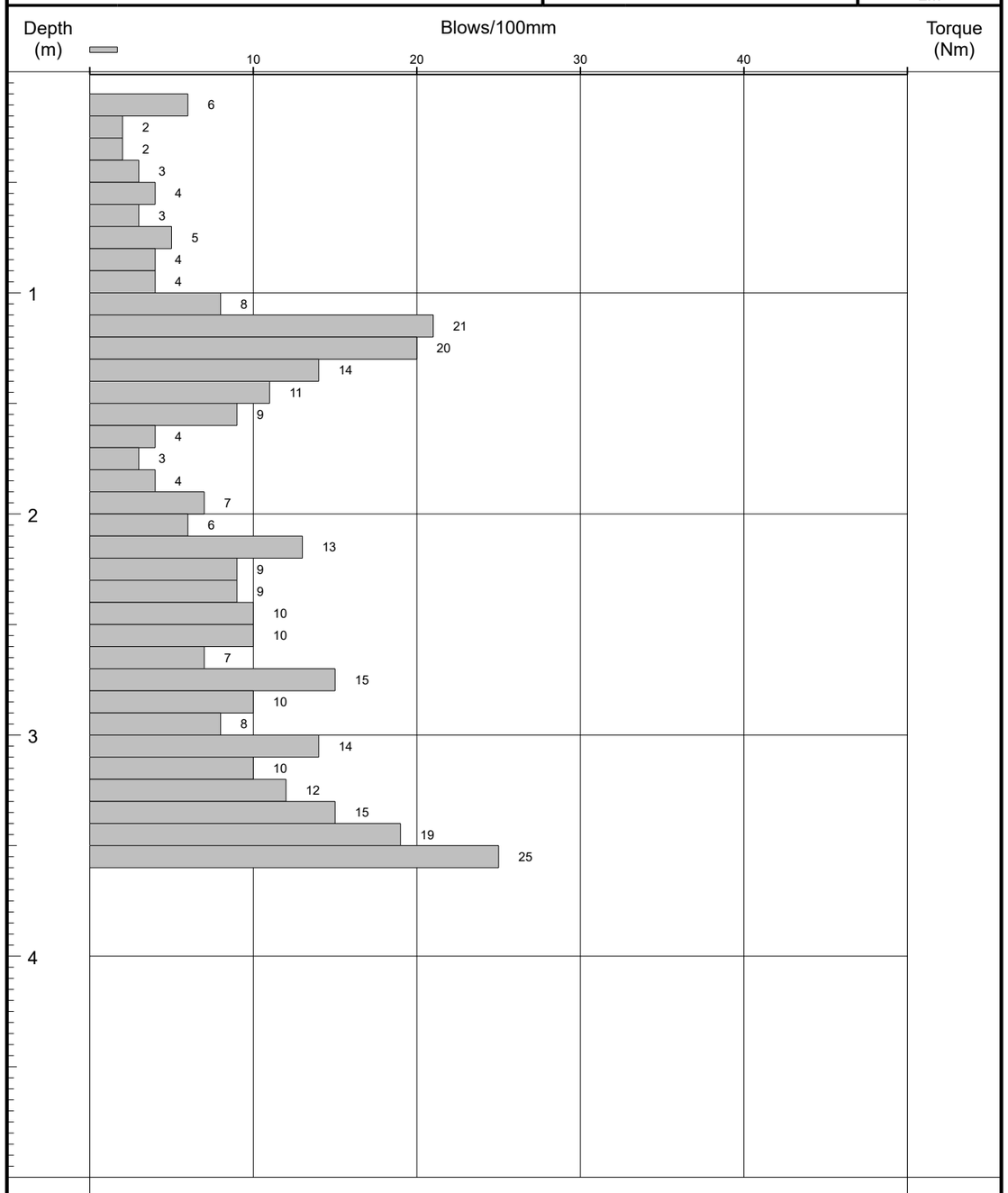
pgl priority geotechnical	**Priority Geotechnical Ltd.** **Tel: 021 4631600** **Fax: 021 4638690** **www.prioritygeotechnical.ie**			Probe No **DP06** Sheet 1 of 1
Project Name: Bessboro SHD		**Project No.** P21239	**Co-ords:** 171944E - 70343N	**Hole Type** DP
Location: Mahon, Cork			**Level:** 13.61m OD	**Scale** 1:25
Client: Estuary View Ent. Ltd			**Dates:** 13/01/2022	**Logged By** LM



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BESSBOROUGH, CORK

APPENDIX 8

Water (Hydrology & Hydrogeology)

VOLUME III | APPENDICES

BESSBOROUGH, CORK

APPENDIX 8

Water (Hydrology & Hydrogeology)

- Appendix 8-1 - A Site-Specific Flood Risk Assessment Phase 1 'The **Farm** prepared by the Egis Group
- Appendix 8-2 - A 2022 Site-Specific Flood Risk Assessment previously prepared in relation to an SHD application for 'The Meadows' (ABP-313216-22) prepared by JB Barry and Partners

- Appendix 8-1 - A Site-Specific Flood Risk Assessment Phase 1 ‘The Farm’ prepared by the Egis Group

PHASE 1 LRD DEVELOPMENT AT ‘THE FARM’,BESSBOROUGH, BALLINURE, CORK

Flood Risk Assessment

18 September 2025

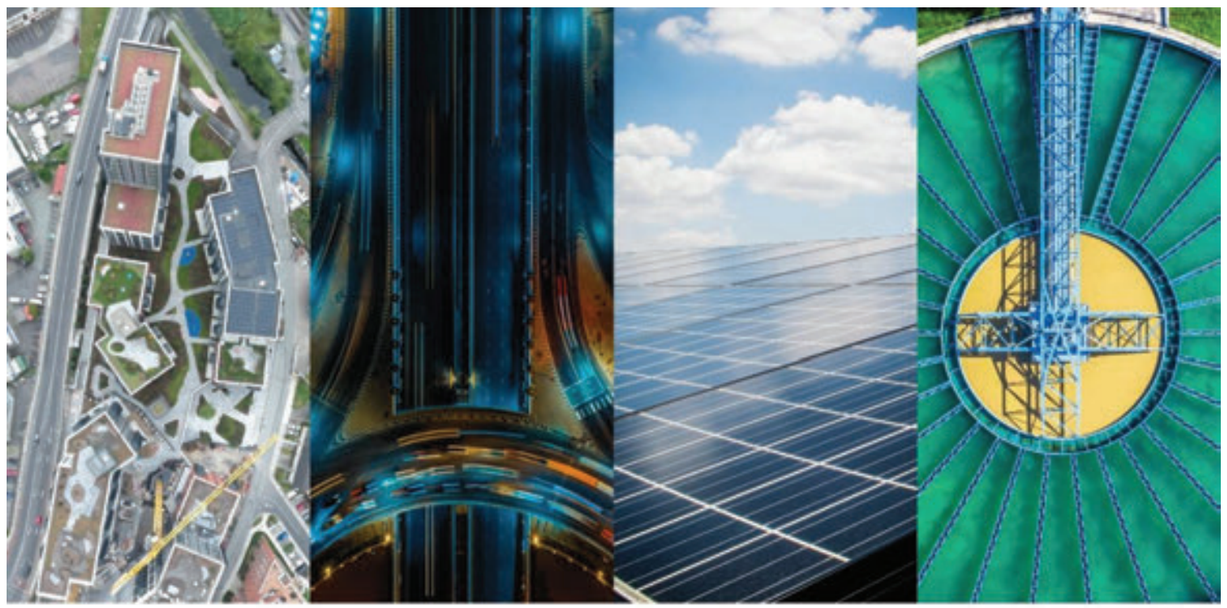
Document Information

GENERAL INFORMATION

Client:	Estuary View Enterprises 2020 Ltd
Project Title:	Phase 1 LRD Development at ‘The Farm’,Bessborough, Ballinure, Cork
Report Title:	Flood Risk Assessment
File Name:	25629-EEI-XX-XX-RP-CE-10003_Flood_Risk_Assessment-P01

HISTORY OF CHANGES

DOCUMENT REVISION			DOCUMENT VERIFICATION			
Issue Date (DD/MM/YY)	Revision	Suitability	Author(s)	Reviewer(s)	Approver(s)	Peer Review (or N/A)
18/09/2025	P01	S3	POKL	TF	TF	



Formerly JB Barry & Partners who became part of Egis in 2023.

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1 INTRODUCTION

1.1 General

Egis were engaged by Estuary View Enterprises 2020 Ltd to undertake a site-specific Flood Risk Assessment (FRA) to support an LRD planning application at 'The Farm', Bessborough, Ballinure, Cork. The aim of the FRA is to identify, quantify and communicate to decision makers and other stakeholders the risk of flooding associated with the proposed development.

The FRA has been carried out in accordance with 'The Planning System and Flood Risk Management Guidelines' (hereafter referred to as the FRM Guidelines) published in November 2009 jointly by the then Department of the Environment, Heritage and Local Government, DEHLG, (now the Department of the Environment, Community and Local Government, DECLG) and the Office of Public Works (OPW).

The proposed development is located at Phase 1 'The Farm', Bessborough, Ballinure, Cork, on a circa 5.1-hectare site, with a developable area of 4.28-hectares, see *Figure 1.1*. This proposed development will form Phase 1 of a larger development on a circa 16.59-hectare site.

The South Ring Road (N40) is located approximately 250m from the southern boundary of the proposed development. The boundaries of the site are formed by the buildings, outbuildings, roads and open spaces of the overall Bessborough complex. The site slopes gently from north to south, with ground levels falling from approximately 18.00 m OD in the north-east of the site to 10.50 m OD in the south-west of the site.

FIGURE 1-1: LOCATION OF PROPOSED DEVELOPMENT

1.2 Proposed Development

The proposed development provides for the demolition of 10 no. existing agricultural sheds and structures and the construction of 140 apartments over a number of blocks of 4-5 storeys in height. Provision is made for

a creche, a café and shared communal facilities, building management facilities including plant and storage areas.

The proposed development will include a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the west, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas. Ancillary site works to include provision of a substation, playground and outdoor amenity spaces, landscaping, on-street car parking spaces, bicycle parking spaces, bin stores and public lighting. Vehicular access to the proposed development will also be provided via an existing access road off the Bessborough Road.

A detailed description of the proposed development is provided in the Planning Report and enclosed with the submission package.

FIGURE 1-2: PROPOSED PHASE 1 THE FARM SITE LAYOUT PLAN

2 FLOOD RISK ASSESSMENT METHODOLOGY

2.1 Methodology

The methodology used for the flood risk assessment for the proposed development is based on 'The Planning System and Flood Risk Management, Guidelines for Planning Authorities' (2009)'. The FRM Guidelines require the planning system at national, regional and local levels to:

- Avoid development in areas at risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development;
- Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and then mitigation of flood risk; and
- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

The sequential approach (see Figure 3.1 of the FRM Guidelines below) in flood risk management requires the following three steps to identify the necessity for the justification test for a development:

- Step 1: Identification of the Flood Zone at the proposed development site (Section 2.23 of the FRM Guidelines);
- Step 2: Identification of the vulnerability of the type of the proposed development (Table 3.1 of the FRM Guidelines); and
- Step 3: Using the matrix of vulnerability versus Flood Zone (Table 3.2 of the FRM Guidelines), identify the necessity for the justification test for the proposed development.

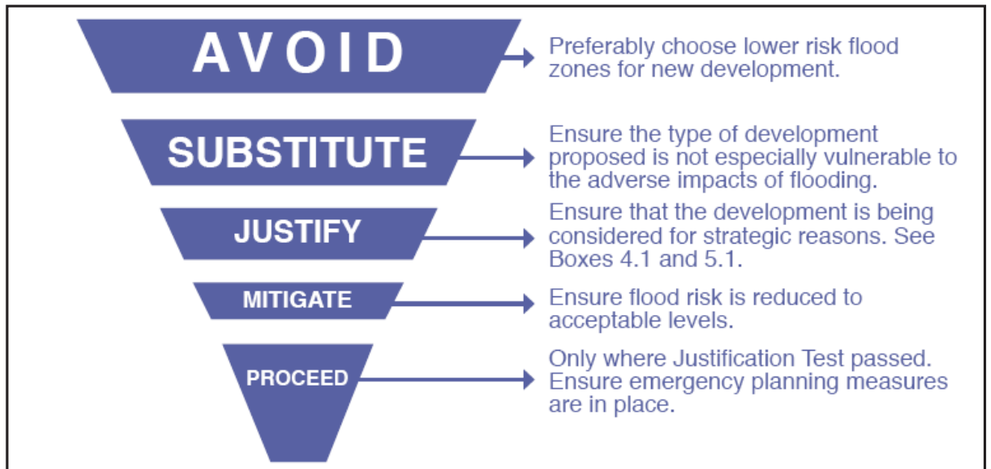

Fig. 3.1: Sequential approach principles in flood risk management

While Figure 3.1 of The FRM Guidelines sets out the broad philosophy underpinning the sequential approach in the flood risk management, Figure 3.2 of the Guidelines (shown below) describes the mechanism of the sequential approach for use in the planning process.

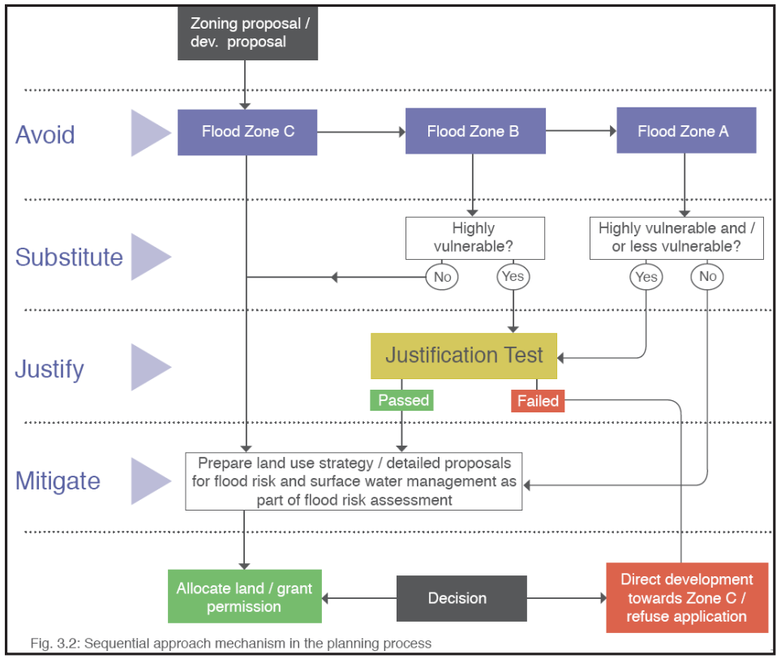

Fig. 3.2: Sequential approach mechanism in the planning process

According to the FRM Guidelines, Flood Zones are graphical areas within which the likelihood of flooding is in a particular range. They are a key tool in flood risk management within the planning process as well as in flood warning and emergency planning. There are three Flood Zones, namely,

- **Flood Zone A** – where the probability of flooding from rivers and the sea is highest (greater than 1% AEP or 1 in 100 year for river flooding or 0.5% or 1 in 200 for coastal flooding);
- **Flood Zone B** – where the probability of flooding from rivers and the sea is moderate (between 0.1% AEP or 1 in 1000 year and 1% AEP or 1 in 100 year for river flooding and between 0.1% AEP or 1 in 1000 year and 0.5% AEP or 1 in 200 year for coastal flooding); and
- **Flood Zone C** – where the probability of flooding from rivers and the sea is low (less than 0.1% AEP or 1 in 1000 for both river and coastal flooding).

Flood Zones A, B and C are based on the current assessment of the 1% AEP and the 0.1% AEP fluvial events and the 0.5% AEP and 0.1% AEP tidal events, without the inclusion of climate change factors. Table 3.1 of the FRM Guidelines (see below) shows the classification of the vulnerability to flooding of different types of development.

Vulnerability class	Land uses and types of development which include*:
Highly vulnerable development (including essential infrastructure)	Garda, ambulance and fire stations and command centres required to be operational during flooding; Hospitals; Emergency access and egress points; Schools; Dwelling houses, student halls of residence and hostels; Residential institutions such as residential care homes, children's homes and social services homes; Caravans and mobile home parks; Dwelling houses designed, constructed or adapted for the elderly or, other people with impaired mobility; and Essential infrastructure, such as primary transport and utilities distribution, including electricity generating power stations and sub-stations, water and sewage treatment, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding.
Less vulnerable development	Buildings used for: retail, leisure, warehousing, commercial, industrial and non-residential institutions; Land and buildings used for holiday or short-let caravans and camping, subject to specific warning and evacuation plans; Land and buildings used for agriculture and forestry; Waste treatment (except landfill and hazardous waste); Mineral working and processing; and Local transport infrastructure.
Water-compatible development	Flood control infrastructure; Docks, marinas and wharves; Navigation facilities; Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location; Water-based recreation and tourism (excluding sleeping accommodation); Lifeguard and coastguard stations; Amenity open space, outdoor sports and recreation and essential facilities such as changing rooms; and Essential ancillary sleeping or residential accommodation for staff required by uses in this category (subject to a specific warning and evacuation plan).

*Uses not listed here should be considered on their own merits

Table 3.1 Classification of vulnerability of different types of development

Table 3.2 of the FRM Guidelines (shown below) identifies the types of development that would be appropriate for each Flood Zone and those that would be required to meet the Justification Test. Since dwelling homes are classified as 'Highly vulnerable development' the section highlighted in Table 3.2 presents the required actions for each flood zone.

	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

Table 3.2: Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test.

The FRM Guidelines (Chapter 2) outlines the following three stages of flood risk assessment:

Stage 1: Flood risk identification – to identify whether there may be any flooding or surface water management issues relating to the proposed development site that may warrant further investigations.

Stage 2: Initial flood risk assessment – to confirm sources of flooding that may affect the proposed development site, to appraise the adequacy of existing information and to determine what surveys and modelling approach is appropriate to match the spatial resolution required and complexity of the flood risk issues. This stage involves the review of existing studies and hydraulic modelling to assess flood risk and to assist with the development of FRM measures.

Stage 3: Detailed flood risk assessment – to assess flood risk issues in sufficient detail and to provide a quantitative appraisal of potential flood risk to a proposed or existing development, of its potential impacts on flood risk elsewhere and of the effectiveness of any proposed mitigation measures. This will typically involve use of an existing or construction of a hydraulic model across a wide enough area to appreciate the catchment wide impacts and hydrological process involved.

2.2 Data Collection

Data required for the flood risk assessment was obtained from various sources, as described below.

- The historic flood data was obtained from the National Flood Hazard Mapping website *www.floodmaps.ie;*
- The Subsoil and Aquifer vulnerability data was obtained from the Geological Survey of Ireland website *www.gsi.ie;*
- *National CFRAM Study;*
- Cork City Council Development Plan 2022 – 2028;
- Cork City Council Flood Maps;

3 EXISTING HYDROLOGICAL ENVIRONMENT

3.1 Salient Hydrological Features

The main hydrological feature of the area is the Douglas Estuary. The proposed development site is located approximately 250m north to the estuary of the Douglas Estuary where the river discharges to Lough Mahon. *Figure 3-1* below illustrates the main hydrological features associated with the site.

FIGURE 3-1: HYDROLOGICAL FEATURES OF THE AREA

3.2 Existing Geology and Hydrology of the Area

The Geological Survey of Ireland (GSI) website provides information on their public online mapping service at www.gsi.ie on subsoil type and aquifer vulnerability. The maps presented in *Figure 3-2* and ***Error! Reference source not found.*** depict the subsoil type and aquifer vulnerability for the proposed development site. The GSI subsoil mapping (*Figure 3-2*) indicates that made ground is the dominant ground condition within the environs of the proposed development site due to the urban nature of the site.

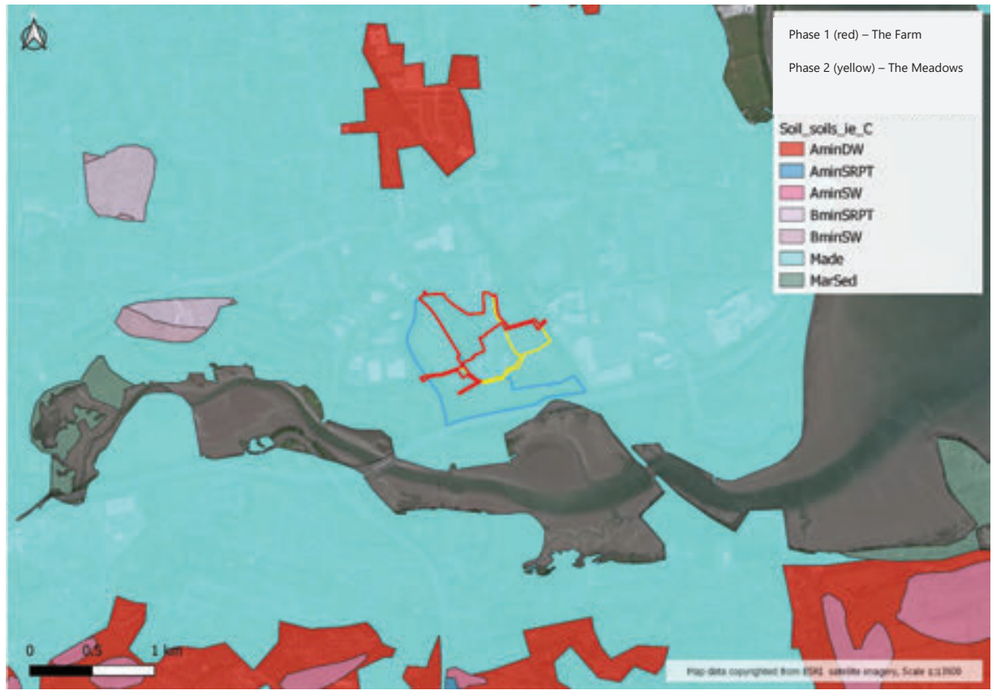

FIGURE 3-2: GSI SUBSOIL MAPPING

Furthermore, the interactive web-mapping site classifies the aquifer vulnerability for the site to be *high vulnerability* (Figure 3-3). The GSI state that "Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities". The GSI further describes that the vulnerability of groundwater depends on:

- The time of travel of infiltrating water (and contaminants);
- The relative quantity of contaminants that can reach the groundwater; and
- The contaminant attenuation capacity of the geological materials through which the water and contaminants infiltrate.

FIGURE 3-3: GSI AQUIFER VULNERABILITY MAPPING (SOURCE: WWW.GSI.IE, ANNOTATION BY EGIS)

3.3 Flood Regime of the Area

The National Flood Hazard Mapping Website www.floodinfo.ie does not show any records of historic flooding occurring at the proposed development site. The nearest floods to have occurred to the proposed development site occurred in Douglas in 2002 and 2012 and in Rochestown in 2014. The recorded floods within the vicinity of the site are shown in *Figure 3-3* below.

FIGURE 3-3: LOCATION OF HISTORIC FLOODING IN THE VICINITY OF THE PROPOSED SITE

3.4 Existing Flood Studies

3.4.1 CFRAM Study

The OPW, as lead agency for flood risk management in Ireland, is producing Flood Risk Management Plans (FRMP), in line with National Flood Policy and the requirements of the EU Floods Directive. FRMP's are currently being produced by the OPW under the CFRAM Study.

Figure 3-5 is an extract from the CFRAMS coastal flood extent map showing the flood extent of the Douglas Estuary. Observation of the map shows that the proposed development site lies outside of Flood Zones A and B and is therefore considered to be located within **Flood Zone C.**

FIGURE 3-4: EXTRACT CFRAMS COASTAL FLOOD EXTENT MAP

3.4.2 Cork City Council Development Plan 2022-2028

The Development Plan for Cork City came into effect in 2022 and it sets out Cork City Council's policies for the development of the city to 2028 and beyond. This includes detailed planning strategy and land use zoning as appropriate for the areas of the district including Bessborough. In accordance with best practice, Cork City Council has provided an interactive indicative flood risk mapping on a county wide basis which is included in the Local Area Plan.

An extract from the flood risk map prepared in the vicinity of the proposed development site is shown below in Figure 3-6. Observation of Figure 3-6 demonstrates that the development site is outside of both Flood Zones A and B and can therefore be considered to be located within Flood Zone C where the risk of flooding is lowest. This is consistent with the CFRAM flood mapping.

FIGURE 3-5: EXTRACT FROM THE INTERACTIVE CORK CITY COUNCIL FLOOD RISK MAPPING

4 FLOOD RISK ASSESSMENT

4.1 Introduction

As outlined in Section 2 of this report the FRM guidelines identifies three stages of Flood Risk Assessment namely;

- Stage 1: Flood Risk Identification
- Stage 2: Initial Flood Risk Assessment
- Stage 3: Detailed Flood Risk Assessment

4.2 Flood Risk Identification

According to the FRM Guidelines, flood risk identification is the process for deciding whether a plan or project requires further investigation. This is a desk-based exercise based on existing information. All the existing information is described in Section 3 and the identification of flood risk from each of the five sources of flooding (coastal, fluvial (river), groundwater, pluvial (rainfall) and from artificial drainage systems) is considered.

4.2.1 Coastal Flood Risk

The CFRAMS Map in *Figure 3-5* and Cork City Council flood maps in *Figure 3-6* both indicate that the proposed development site lies outside of the 0.1% AEP coastal flood event and hence is located within **Flood Zone C** for Coastal flood risk, where the risk of flooding is low.

4.2.2 Fluvial Flood Risk

The Cork City Council flood maps in *Figure 3-6* indicates that the proposed development site lies outside of the 0.1% AEP fluvial flood event and hence is located within **Flood Zone C** for fluvial flood risk, where the risk of flooding is low.

4.2.3 Groundwater Flood Risk

The aquifer vulnerability map (refer to ***Error! Reference source not found.***) classifies the site as having a 'high vulnerability' which indicates a high-water table and hence a risk of groundwater related flooding. However, there is no historical evidence of groundwater flooding at the site. There is no indication on the maps of any springs or wells on this site. Groundwater risk is therefore not considered to be significant.

4.2.4 Pluvial Flood Risk

The OPW Summary Local Area Report shows no indication of previous pluvial related flooding at the site. During extreme rainfall events the application of SuDS principles will ensure surface water is managed sufficiently and sustainably discharged to the drainage network. With these mitigation measures in place pluvial flood risk is not considered to be significant.

4.2.5 Artificial Drainage Systems Flood Risk

No artificial drainage systems have been identified at the proposed site, and consequently artificial drainage systems flood risk is not relevant.

4.3 Initial Flood Risk Assessment

The Flood Risk Assessment has identified that there is a low flood risk to the development on site. Under the sequential approach identified in the FRM Guidelines a three-step approach is required to confirm the appropriateness of the development in terms of flood risk.

Step 1: Identification of the Flood Zone at the proposed development site

Using the Flood Zone criteria from the FRM Guidelines and as defined in Section 2 previously, the flood zones for each of the sites were determined.

- **Flood Zone A** – where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 year for river flooding or 0.5% or 1 in 200 for coastal flooding);
- **Flood Zone B** – where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 year and 1% or 1 in 100 year for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 year for coastal flooding); and
- **Flood Zone C** – where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

As discussed in Section 4.2 above, the proposed development site lies within **Flood Zone C** – where risk of flooding is lowest.

Step 2: Identification of the vulnerability of the type of the proposed development (Table 3.1 of the FRM Guidelines)

The different types of proposed infrastructure are then assigned a vulnerability classification according to the definitions in 'Table 3.1 – Classification of vulnerability of different types of development' of the FRM Guidelines.

As described in Section 1.2 above, the proposed development is for residential purposes. This is classified as 'highly vulnerable development'.

Step 3: Using the matrix of vulnerability versus Flood Zone (Table 3.2 of the FRM Guidelines), identify the necessity for the justification test for the proposed development

The proposed development site is located in Flood Zone C and is categorised as Highly Vulnerable Development. Table 3.2 of the FRM guidelines and Figure 3.2 – Sequential approach mechanism in the planning process (FRM guidelines) stipulate that a justification test is not required for such a development and is deemed appropriate development for the flood zone categories. *Figure 4-1* below highlights the matrix of vulnerability versus flood zone.

	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

Table 3.2: Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test.

FIGURE 4-1: MATRIX OF VULNERABILITY VERSUS FLOOD ZONE TO ILLUSTRATE APPROPRIATE DEVELOPMENT

4.4 Detailed Flood Risk Assessment

Following from Stage 2 – Initial Flood Risk Assessment, it was determined that there is no requirement to undertake a detailed flood risk assessment on the proposed development. The vulnerability matrix as shown in *Figure 4-1* identifies that there is no need for a Justification Test to be undertaken.

5 CONCLUSIONS

5.1 Summary of Results

A flood risk assessment for the proposed Phase 1 LRD development at The Farm, Bessborough, Ballinure, Cork has been undertaken in accordance with the methodology recommended in the FRM Guidelines. The following is the summary of the flood risk assessment:

- The Douglas Estuary flows in an easterly direction and discharges to Lough Mahon to the south of the site. Historical flood data gathered from *www.floodmaps.ie* has indicated that the there is no history of flooding at the site.
- The CFRAMS Map and Cork City Council Flood Map both indicate that lies outside of Flood Zones A and B and can therefore be considered to be located within **Flood Zone C.**
- The type of development is defined as 'Highly Vulnerable Development'. Using the sequential approach mechanism, it is assessed that a justification test is not required for the proposed development.

5.2 Impact of the Proposed Development on the Existing Flood Regime of the Area

To prevent any increased flooding that may arise from this development, it is proposed to implement SuDS measures, as discussed in detail in the Drainage Impact Assessment Report, in order to limit the discharge from the site to the greenfield discharge rates. The implementation of these SuDS measures will ensure that there will be no increase in the risk of flooding elsewhere as a result of the development. It is therefore considered that the proposed development will have a negligible impact on the existing flood regime of the area.

Data sensitivity - Public

Ireland

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- Appendix 8-2 - A 2022 Site-Specific Flood Risk Assessment previously prepared in relation to an SHD application for ‘The Meadows ’ (ABP-313216-22) prepared by JB Barry and Partners.

- The 2022 FRA designated the site as Flood Zone C. The design of the proposed scheme in 'The Meadows' is subject to revision. However, it is not expected that this designation will change in light of the recent assessment.

- An updated FRA for The Meadows will be prepared once Phase 2 proceeds to the planning stage. The 2022 FRA is included here for information purposes.

Client:

Estuary View Enterprises 2020 Ltd.

Project:

Bessborough SHD Development

Report:

Flood Risk Assessment

BARRY
& PARTNERS

Document Control Sheet

Client:	Estuary View Enterprises 2020 Ltd.
Project Title:	Bessborough SHD Development
Document Title:	Flood Risk Assessment
File Name:	21207-JBB-PH1-XX-RP-C-01007

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Y	N	Y	16	1

Document Revision				**Document Verification**			
Issue Date *(DD/MM/YY)*	**Revision Code**	**Suitability Code**	**Author** *(Initials)*	**Checker** *(Initials)*	Reviewer As Per PMP *(Initials)*	**Approver** *As Per PMP (Initials)*	**Peer Review** *(Initials or N/A)*
18/10/2021	P01	S0	DMcG	TF	TF	TF	
21/02/2022	P02	S0	DMcG	TF	TF	TF	
21/03/2022	P03	S0	DMcG	TF	TF	TF	

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SECTION 1: INTRODUCTION

1.1 General

J. B. Barry and Partners Limited was commissioned by Estuary View Enterprises 2020 Ltd. to undertake a site-specific Flood Risk Assessment (FRA) in respect of an SHD planning application for a proposed residential development at Ballinure, Blackrock, Co. Cork. The aim of the FRA is to identify, quantify and communicate to decision makers and other stakeholders the risk of flooding associated with the proposed development.

The FRA has been carried out in accordance with 'The Planning System and Flood Risk Management Guidelines' (hereafter referred to as the FRM Guidelines) published in November 2009 jointly by the then Department of the Environment, Heritage and Local Government, DEHLG, (now the Department of the Environment, Community and Local Government, DECLG) and the Office of Public Works (OPW).

The proposed development is located at Phase 1- 'The Meadows', Bessborough, Ballinure, Blackrock, Cork, on a circa 2.29-hectare site, with a developable area of 1.53-hectares, see *Figure 1-1* below. This proposed development will form Phase 1 of a larger development on a circa 16.59-hectare site, see *Figure 1.2* for outline phasing proposals.

The Passage West Greenway forms the eastern boundary of the proposed development site, and the South Ring Road (N40) is located approximately 200m from the southern boundary of the proposed development. The western and northern boundaries of the Phase 1 site are formed by the buildings, outbuildings, roads and open spaces of the overall Bessborough complex. The site slopes gently from north to south, with ground levels falling from approximately 14.50 m OD to 11.25 m OD across the site.

Figure 1-1: Location of Proposed Development

(Source: Google Maps, annotation by J.B. Barry and Partners)

Figure 1-2: Phasing of Proposed Development

1.2 Proposed Development

The development will consist of the construction of a residential development of 280 no. residential apartment units with supporting tenant amenity facilities, café, crèche, and all ancillary site development works. The proposed development includes 280 no. apartments to be provided as follows: Block A (6 no. studio apartments, 14 no. 1-bedroom, 34 no. 2-bedroom & 1 no. 3-bedroom over 1-6 storeys), Block B (37 no. 1-bedroom & 49 no. 2-bedroom over 6-10 storeys), Block C (31 no. 1-bedroom, 36 no. 2-bedroom & 6 no. 3-bedroom over 5-9 storeys) and Block D (30 no. 1-bedroom, 31 no. 2-bedroom & 5 no. 3-bedroom over 6-7 storeys).

The proposal includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas.

The proposed development provides for outdoor amenity areas, landscaping, under-podium and street car parking, bicycle parking, bin stores, 2 no. substations one of which is single storey free standing, a single storey carpark access building, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road. See *Figure 1-3* for proposed site layout plan.

Figure 1-3: Proposed Phase 1 Site Layout Plan

SECTION 2: FLOOD RISK ASSESSMENT METHODOLOGY

2.1 Methodology

The methodology used for the flood risk assessment for the proposed development is based on 'The Planning System and Flood Risk Management, Guidelines for Planning Authorities' (2009)'. The FRM Guidelines require the planning system at national, regional and local levels to:

- Avoid development in areas at risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development;
- Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and then mitigation of flood risk; and
- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

The sequential approach (see Figure 3.1 of the FRM Guidelines below) in flood risk management requires the following three steps to identify the necessity for the justification test for a development:

- Step 1: Identification of the Flood Zone at the proposed development site (Section 2.23 of the FRM Guidelines);
- Step 2: Identification of the vulnerability of the type of the proposed development (Table 3.1 of the FRM Guidelines); and
- Step 3: Using the matrix of vulnerability versus Flood Zone (Table 3.2 of the FRM Guidelines), identify the necessity for the justification test for the proposed development.

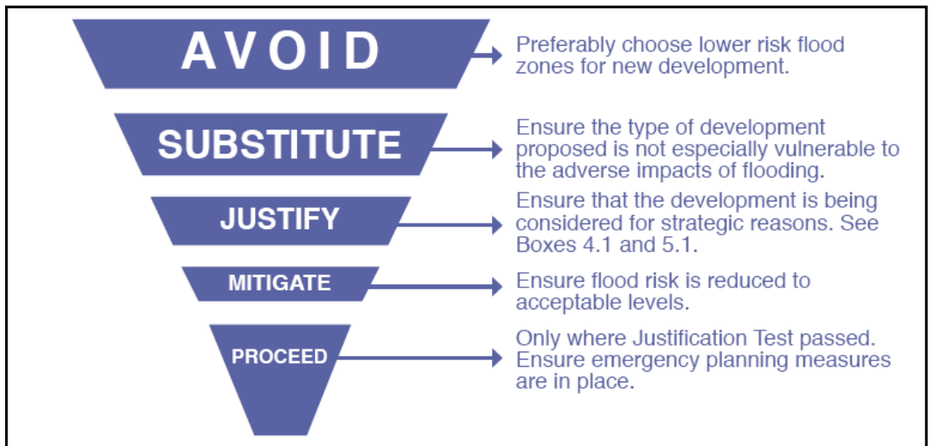

Fig. 3.1: Sequential approach principles in flood risk management

While Figure 3.1 of The FRM Guidelines sets out the broad philosophy underpinning the sequential approach in the flood risk management, Figure 3.2 of the Guidelines (shown below) describes the mechanism of the sequential approach for use in the planning process.

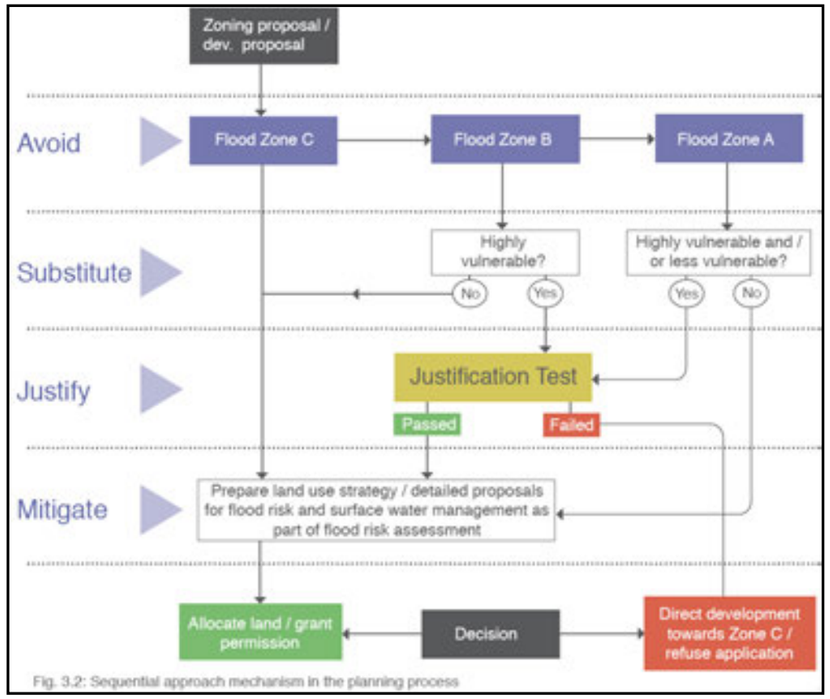

Fig. 3.2: Sequential approach mechanism in the planning process

According to the FRM Guidelines, Flood Zones are graphical areas within which the likelihood of flooding is in a particular range. They are a key tool in flood risk management within the planning process as well as in flood warning and emergency planning. There are three Flood Zones, namely,

- **Flood Zone A** – where the probability of flooding from rivers and the sea is highest (greater than 1% AEP or 1 in 100 year for river flooding or 0.5% or 1 in 200 for coastal flooding);
- **Flood Zone B** – where the probability of flooding from rivers and the sea is moderate (between 0.1% AEP or 1 in 1000 year and 1% AEP or 1 in 100 year for river flooding and between 0.1% AEP or 1 in 1000 year and 0.5% AEP or 1 in 200 year for coastal flooding); and
- **Flood Zone C** – where the probability of flooding from rivers and the sea is low (less than 0.1% AEP or 1 in 1000 for both river and coastal flooding).

Flood Zones A, B and C are based on the current assessment of the 1% AEP and the 0.1% AEP fluvial events and the 0.5% AEP and 0.1% AEP tidal events, without the inclusion of climate change factors. Table 3.1 of the FRM Guidelines (see below) shows the classification of the vulnerability to flooding of different types of development.

Vulnerability class	Land uses and types of development which include*:
Highly vulnerable development (including essential infrastructure)	Garda, ambulance and fire stations and command centres required to be operational during flooding; Hospitals; Emergency access and egress points; Schools; Dwelling houses, student halls of residence and hostels; Residential institutions such as residential care homes, children's homes and social services homes; Caravans and mobile home parks; Dwelling houses designed, constructed or adapted for the elderly or, other people with impaired mobility; and Essential infrastructure, such as primary transport and utilities distribution, including electricity generating power stations and sub-stations, water and sewage treatment, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding.
Less vulnerable development	Buildings used for: retail, leisure, warehousing, commercial, industrial and non-residential institutions; Land and buildings used for holiday or short-let caravans and camping, subject to specific warning and evacuation plans; Land and buildings used for agriculture and forestry; Waste treatment (except landfill and hazardous waste); Mineral working and processing; and Local transport infrastructure.
Water-compatible development	Flood control infrastructure; Docks, marinas and wharves; Navigation facilities; Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location; Water-based recreation and tourism (excluding sleeping accommodation); Lifeguard and coastguard stations; Amenity open space, outdoor sports and recreation and essential facilities such as changing rooms; and Essential ancillary sleeping or residential accommodation for staff required by uses in this category (subject to a specific warning and evacuation plan).

*Uses not listed here should be considered on their own merits

Table 3.1 Classification of vulnerability of different types of development

Table 3.2 of the FRM Guidelines (shown below) identifies the types of development that would be appropriate for each Flood Zone and those that would be required to meet the Justification Test. Since dwelling homes are classified as 'Highly vulnerable development' the section highlighted in Table 3.2 presents the required actions for each flood zone.

	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

Table 3.2: Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test.

The FRM Guidelines (Chapter 2) outlines the following three stages of flood risk assessment:

Stage 1: Flood risk identification – to identify whether there may be any flooding or surface water management issues relating to the proposed development site that may warrant further investigations.

Stage 2: Initial flood risk assessment – to confirm sources of flooding that may affect the proposed development site, to appraise the adequacy of existing information and to determine what surveys and modelling approach is appropriate to match the spatial resolution required and complexity of the flood risk issues. This stage involves the review of existing studies and hydraulic modelling to assess flood risk and to assist with the development of FRM measures.

Stage 3: Detailed flood risk assessment – to assess flood risk issues in sufficient detail and to provide a quantitative appraisal of potential flood risk to a proposed or existing development, of its potential impacts on flood risk elsewhere and of the effectiveness of any proposed mitigation measures. This will typically involve use of an existing or construction of a hydraulic model across a wide enough area to appreciate the catchment wide impacts and hydrological process involved.

2.2 Data Collection

Data required for the flood risk assessment was obtained from various sources, as described below.

- The historic flood data was obtained from the National Flood Hazard Mapping website www.floodmaps.ie;
- The Subsoil and Aquifer vulnerability data was obtained from the Geological Survey of Ireland website www.gsi.ie;
- National CFRAM Study;
- Cork City Council Development Plan 2015 – 2021;
- Cork City Council Flood Maps;

SECTION 3: EXISTING HYDROLOGICAL ENVIRONMENT

3.1 Salient Hydrological Features

The main hydrological feature of the area is the Douglas Estuary. The proposed development site is located approximately 260m north to the estuary of the Douglas Estuary where the river discharges to Lough Mahon. *Figure 3-1* below illustrates the main hydrological features associated with the site.

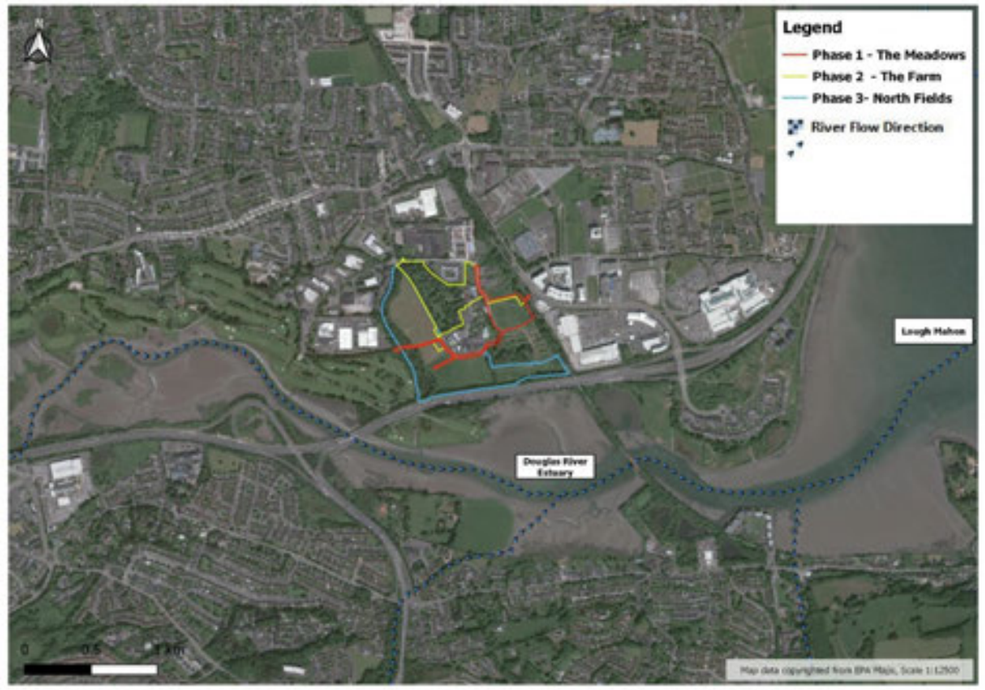

Figure 3-1: Hydrological Features of the Area

(Source: Google Maps, annotation by J.B. Barry and Partners)

3.2 Existing Geology and Hydrogeology of the Area

The Geological Survey of Ireland (GSI) website provides information on their public online mapping service at www.gsi.ie on subsoil type and aquifer vulnerability. The maps presented in *Figure 3-2* and *Figure 3-3* depict the subsoil type and aquifer vulnerability for the proposed development site. The GSI subsoil mapping (*Figure 3-2*) indicates that made ground is the dominant ground condition within the environs of the proposed development site due to the urban nature of the site.

Figure 3-2: GSI Subsoil Mapping

(Source: www.gsi.ie, annotation by J.B. Barry and Partners)

Furthermore, the interactive web-mapping site classifies the aquifer vulnerability in this region as having a high vulnerability rating (*Figure 3-3*). The GSI state that "Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities." The GSI further describes that the vulnerability of groundwater depends on:

- The time of travel of infiltrating water (and contaminants);
- The relative quantity of contaminants that can reach the groundwater; and
- The contaminant attenuation capacity of the geological materials through which the water and contaminants infiltrate

Figure 3-3: GSI Aquifer Vulnerability Mapping

(Source: www.gsi.ie, annotation by J.B. Barry and Partners)

3.3 Flood Regime of the Area

The National Flood Hazard Mapping Website www.floodinfo.ie does not show any records of historic flooding occurring at the proposed development site. The nearest floods to have occurred to the proposed development site occurred in Douglas in 2002 and 2012 and in Rochestown in 2014. The recorded floods within the vicinity of the site are shown in *Figure 3-4* below.

Figure 3-4: Location of historic flooding in the vicinity of the proposed site

(Source: www.floodinfo.ie annotation by J.B. Barry and Partners)

3.4 Existing Flood Studies

3.4.1 CFRAM Study

The OPW, as lead agency for flood risk management in Ireland, is producing Flood Risk Management Plans (FRMP), in line with National Flood Policy and the requirements of the EU Floods Directive. Draft FRMP's are currently being produced by the OPW under the CFRAM Study. The Draft FRMP's make use of the information provided through the flood maps that have previously been produced under the CFRAMS Programme and previous parallel projects. The Draft FRMP's set out a range of proposed measures and actions to manage and reduce flood risk within the catchments and coastal reaches covered by each Draft Plan, focusing on the three hundred areas of potentially significant flood risk around Ireland that were identified under the PFRA. The Flood Maps associated with the FRMP's are currently being finalised and will be made available online to view when the Draft Plans are published for consultation.

Figure 3-5 overleaf is an extract from the CFRAMS coastal flood extent map showing the flood extent of the Douglas Estuary. The full CFRAMS flood extent map is included in Appendix 1. However, it should be noted that no proposed development will occur at this portion of the site. Observation of the map shows that the proposed development site lies outside of Flood Zones A and B and is therefore considered to be located within **Flood Zone C.**

Figure 3-5: Extract CFRAMS Coastal Flood Extent Map

3.4.2 Cork City Council Development Plan 2015-2021

The development plan for Cork City came into effect in 2015 and it sets out Cork City Council's policies for the development of the city to 2021 and beyond. This includes detailed planning strategy and land use zoning as appropriate for the areas of the district including Bessborough. In accordance with best practice, Cork City Council has provided an interactive indicative flood risk mapping on a county wide basis which is included in the Local Area Plan.

An extract from the flood risk map prepared in the vicinity of the proposed development site is shown below in Figure 3-6. Observation of Figure 3-6 demonstrates that the development site is outside of both Flood Zones A and B and can therefore be considered to be located within Flood Zone C where the risk of flooding is lowest. This is consistent with the CFRAM flood mapping.

Figure 3-6: Extract from the Interactive Cork City Council Flood Risk Mapping

(Source: www.corkcoco.com, annotation by J.B. Barry and Partners)

SECTION 4: FLOOD RISK ASSESSMENT

4.1 Introduction

As outlined in Section 2 of this report the FRM guidelines identifies three stages of Flood Risk Assessment namely;

- Stage 1: Flood Risk Identification
- Stage 2: Initial Flood Risk Assessment
- Stage 3: Detailed Flood Risk Assessment

4.2 Flood Risk Identification

According to the FRM Guidelines, flood risk identification is the process for deciding whether a plan or project requires further investigation. This is a desk-based exercise based on existing information. All the existing information is described in Section 3 and the identification of flood risk from each of the five sources of flooding (coastal, fluvial (river), groundwater, pluvial (rainfall) and from artificial drainage systems) is considered.

Coastal Flood Risk

The CFRAMS Map in *Figure 3-5* and Cork City Council flood maps in *Figure 3-6* both indicate that the proposed development site lies outside of the 0.1% AEP coastal flood event and hence is located within **Flood Zone C** for Coastal flood risk, where the risk of flooding is low.

Fluvial Flood Risk

The Cork City Council flood maps in *Figure 3-6* indicates that the proposed development site lies outside of the 0.1% AEP fluvial flood event and hence is located within **Flood Zone C** for fluvial flood risk, where the risk of flooding is low.

Groundwater Flood Risk

The aquifer vulnerability map (refer to *Figure 3-3*) classifies the site as having a 'high vulnerability' which indicates a high-water table and hence a risk of groundwater related flooding. However, there is no historical evidence of groundwater flooding at the site. There is no indication on the maps of any springs or wells on this site. Groundwater risk is therefore not considered to be significant.

Pluvial Flood Risk

The OPW Summary Local Area Report shows no indication of previous pluvial related flooding at the site. During extreme rainfall events the application of SuDS principles will ensure surface water is managed sufficiently and sustainably discharged to the drainage network. With these mitigation measures in place pluvial flood risk is not considered to be significant.

Artificial Drainage Systems Flood Risk

No artificial drainage systems have been identified at the proposed site, and consequently artificial drainage systems flood risk is not relevant.

4.3 Initial Flood Risk Assessment

The Flood Risk Assessment has identified that there is a low flood risk to the development on site. Under the sequential approach identified in the FRM Guidelines a three-step approach is required to confirm the appropriateness of the development in terms of flood risk.

Step 1: Identification of the Flood Zone at the proposed development site

Using the Flood Zone criteria from the FRM Guidelines and as defined in Section 2 previously, the flood zones for each of the sites were determined.

- **Flood Zone A** – where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 year for river flooding or 0.5% or 1 in 200 for coastal flooding);
- **Flood Zone B** – where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 year and 1% or 1 in 100 year for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 year for coastal flooding); and
- **Flood Zone C** – where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

As discussed in Section 4.2 above, the proposed development site lies within **Flood Zone C** – where risk of flooding is lowest.

Step 2: Identification of the vulnerability of the type of the proposed development (Table 3.1 of the FRM Guidelines)

The different types of proposed infrastructure are then assigned a vulnerability classification according to the definitions in 'Table 3.1 – Classification of vulnerability of different types of development' of the FRM Guidelines.

As described in Section 1.2 above, the proposed development is for residential purposes. This is classified as 'highly vulnerable development'.

Step 3: Using the matrix of vulnerability versus Flood Zone (Table 3.2 of the FRM Guidelines), identify the necessity for the justification test for the proposed development

The proposed development site is located in Flood Zone C and is categorised as Highly Vulnerable Development. Table 3.2 of the FRM guidelines and Figure 3.2 – Sequential approach mechanism in the planning process (FRM guidelines) stipulate that a justification test is not required for such a development and is deemed appropriate development for the flood zone categories. *Figure 4-1* below highlights the matrix of vulnerability versus flood zone.

	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

Table 3.2: Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test.

Figure 4-1: Matrix of Vulnerability versus Flood Zone to illustrate appropriate development

4.4 Detailed Flood Risk Assessment

Following from Stage 2 – Initial Flood Risk Assessment, it was determined that there is no requirement to undertake a detailed flood risk assessment on the proposed development. The vulnerability matrix as shown in *Figure 4-1* identifies that there is no need for a Justification Test to be undertaken.

SECTION 5: CONCLUSIONS

5.1 Summary of Results

A flood risk assessment for the proposed SHD at Bessborough, Blackrock, Co. Cork has been undertaken in accordance with the methodology recommended in the FRM Guidelines. The following is the summary of the flood risk assessment:

- The Douglas Estuary flows in an easterly direction and discharges to Lough Mahon to the south of the site. Historical flood data gathered from www.floodmaps.ie has indicated that the there is no history of flooding at the site.
- The CFRAMS Map and Cork City Council Flood Map both indicate that lies outside of Flood Zones A and B and can therefore be considered to be located within **Flood Zone C.**
- The type of development is defined as 'Highly Vulnerable Development'. Using the sequential approach mechanism, it is assessed that a justification test is not required for the proposed development.

5.2 Impact of the proposed development on the existing flood regime of the area

To prevent any increased flooding that may arise from this development, it is proposed to implement SuDS measures, as discussed in detail in the Services Infrastructure Report, in order to limit the discharge from the site to the greenfield discharge rates. The implementation of these SuDS measures will ensure that there will be no increase in the risk of flooding elsewhere as a result of the development. It is therefore considered that the proposed development will have a negligible impact on the existing flood regime of the area.

Appendix 1:

CFRAMS Map

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OSi permit number EN-002-1006

N

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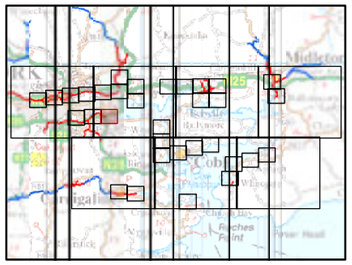
Kilometres

Location Plan :



EXTENT MAP

Legend:

- 10 % AEP Flood Extent (1 in 10 chance in any given year)
- 0.5 % AEP Flood Extent (1 in 200 chance in any given year)
- 0.1 % AEP Flood Extent (1 in 1000 chance in any given year)
- Defended area
- High Confidence (<20m) (10% AEP)
- Medium Confidence (<40m) (10% AEP)
- Low Confidence (> 40m) (10% and 0.1% AEP)
- High Confidence (<20m) (0.5% AEP)
- Medium Confidence (<40m) (0.5% AEP)
- Low Confidence (>40m) (0.5% AEP)
- River Centreline
- Node Point
- 001 Node Label (refer to table)

USER NOTE :

USERS OF THESE MAPS SHOULD REFER TO THE DETAILED DESCRIPTION OF THEIR DERIVATION, LIMITATIONS IN ACCURACY AND GUIDANCE AND CONDITIONS OF USE PROVIDED AT THE FRONT OF THIS BOUND VOLUME. IF THIS MAP DOES NOT FORM PART OF A BOUND VOLUME, IT SHOULD NOT BE USED FOR ANY PURPOSE.

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Project :
LEE CATCHMENT FLOOD RISK ASSESSMENT AND MANAGEMENT STUDY

Map :
DOUGLAS

Map Type :	FLOOD EXTENT	
Source :	TIDAL FLOODING	
Map area :	URBAN AREA	
Scenario :	CURRENT	
Figure By :	Valeria Medina	Date : 21 June 2012
Checked By :	Paul Dunne	Date : 21 June 2012
Approved By :	Clare Dewar	Date : 21 June 2012

Figure No. : M9/UA/EXT/CURS/020
Revision : 1

Drawing Scale : 1:5,000
Plot Scale : 1:1 @ A3

BESSBOROUGH, CORK

APPENDIX 9

Biodiversity

VOLUME III | APPENDICES

BESSBOROUGH, CORK

APPENDIX 9

Biodiversity

- Appendix 9-1 – NRA Guidelines
- Appendix 9-2 – Site Photographs
- Appendix 9-3 – Invasive Species Management Plan (**refer to Appendix 4 of NIS (Appendix 9-5 below)**)
- Appendix 9-4 – Bat Surveys
- Appendix 9-5 – Report in Support of Appropriate Assessment (AA) Screening and Natura Impact Statement - Phase 1 'The Farm'

- Appendix 9-1 – NRA Guidelines

Appendix 9.1. NRA 2009 Guidelines

Examples of valuation at different geographical scales

Ecological valuation: Examples

International Importance:
 	
• **'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation and Proposed Special Protection Area (pSPA).**
 	
• **Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).**
• **Features essential to maintaining the coherence of the Natura 2000 Network.[1]**
• **Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive.**
• **Resident or regularly occurring populations (assessed to be important at the national level) [2] of the following:**
  ○ **Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or**
  ○ **Species of animal and plants listed in Annex II and/or IV of the Habitats Directive.**
• **Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971).**
• **World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972).**
• **Biosphere Reserve (UNESCO Man & The Biosphere Programme).**
• **Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979).**
• **Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979).**
• **Biogenetic Reserve under the Council of Europe.**
• **European Diploma Site under the Council of Europe.**
• **Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988).[3]**

National Importance:
 	
• **Site designated or proposed as a Natural Heritage Area (NHA).**
• **Statutory Nature Reserve.**
• **Refuge for Fauna and Flora protected under the Wildlife Acts.**
• **National Park.**
• **Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park.**
• **Resident or regularly occurring populations (assessed to be important at the national level)[4] of the following:**
  ○ **Species protected under the Wildlife Acts; and/or**
  ○ **Species listed on the relevant Red Data list.**
• **Site containing 'viable areas'[5] of the habitat types listed in Annex I of the Habitats Directive.**

County Importance:
 	
• **Area of Special Amenity.[6]**
• **Area subject to a Tree Preservation Order.**
• **Area of High Amenity, or equivalent, designated under the County Development Plan.**
• **Resident or regularly occurring populations (assessed to be important at the County level)[7] of the following:**
  ○ **Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;**
  ○ **Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;**
  ○ **Species protected under the Wildlife Acts; and/or**
  ○ **Species listed on the relevant Red Data list.**
• **Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance.**
• **County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local BAP, [8] if this has been prepared.**
• **Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county.**
• **Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.**

Local Importance (higher value):
 	
• **Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared;**
• **Resident or regularly occurring populations (assessed to be important at the Local level)[9]of the following:**
  ○ **Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;**
  ○ **Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;**
  ○ **Species protected under the Wildlife Acts; and/or**
  ○ **Species listed on the relevant Red Data list.**
• **Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality;**
• **Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.**

Local Importance (lower value): • **Sites containing small areas of semi-natural habitat that are of some local importance for wildlife;** • **Sites or features containing non-native species that are of some importance in maintaining habitat links.**

1 See Articles 3 and 10 of the Habitats Directive.

2 It is suggested that, in general, 1% of the national population of such species qualifies as an internationally important population. However, a smaller population may qualify as internationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

3 Note that such waters are designated based on these waters' capabilities of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*).

4It is suggested that, in general, 1% of the national population of such species qualifies as a nationally important population. However, a smaller population may qualify as nationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

5 A 'viable area' is defined as an area of a habitat that, given the particular characteristics of that habitat, was of a sufficient size and shape, such that its integrity (in terms of species composition, and ecological processes and function) would be maintained in the face of stochastic change (for example, as a result of climatic variation).

6 It should be noted that whilst areas such as Areas of Special Amenity, areas subject to a Tree Preservation Order and Areas of High Amenity are often designated on the basis of their ecological value, they may also be designated for other reasons, such as their amenity or recreational value. Therefore, it should not be automatically assumed that such sites are of County importance from an ecological perspective.

7 It is suggested that, in general, 1% of the County population of such species qualifies as a County important population. However, a smaller population may qualify as County important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

8 BAP: Biodiversity Action Plan

9 It is suggested that, in general, 1%of the local population of such species qualifies as a locally important population. However, a smaller population may qualify as locally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle

- Appendix 9-2 – Site Photographs

Plate 2. **Phase 1 'The Farm'** Scrub encroachment has continued in undeveloped area at west of the site (near greenway connection)

Plate 1. Phase 1 'The Farm' Large, mature stand of Knotweed adjacent to date centre building with smaller area of Buddleia.

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Plate 3. **Phase 1 'The Farm'** Areas of recolonising bare ground adjoining scrub at west of site (near greenway connection). Paths worn here from pedestrian usage

Plate 4. **Phase 1 'The Farm'** Scattered trees at parkland dominate proposed development site.

Plate 5. **Phase 1 'The Farm'** Self-seeded birch saplings within area of parkland habitat

Plate 6. **Phase 1 'The Farm'** Small woodland area at north of parkland habitat

Plate 8. **Phase 1 'The Farm'** Old stone walls along boundary of walled garden and car park

Plate 7. **Phase 1 'The Farm'** Scattered Pheasant bush, Montbretia, Winter heliotrope and Buddliea at south of parkland habitat

Plate 9. Large area of grassland at west of **Phase 1 ‘The Farm’ and Phase 2 ‘The Meadows’**

Plate 10. Phase 1 ‘The Meadows ‘Scrub and immature woodland dominate parts of the site

Plate 12. Dense stand of Knotweed within Phase 1 ‘The Meadows’

Plate 11. Phase 1 ‘The Meadows ‘patches of dry meadows and grassy verge habitat remain largely along tracks

- **Appendix 9-3 – Invasive Species Management Plan**

  Refer to Appendix 4 of Report in Support of Appropriate Assessment (AA) Screening and Natura Impact Statement (Appendix 9-5 below)

- Appendix 9-4 – Bat Surveys

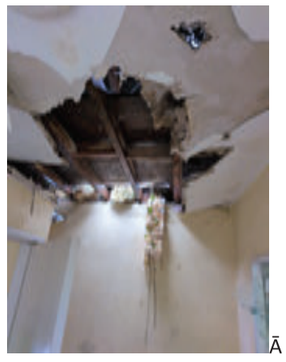
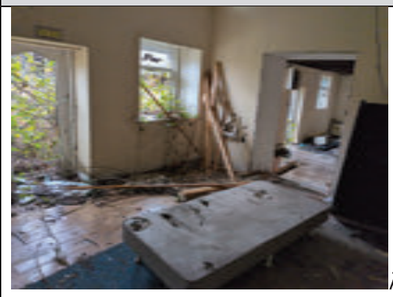
Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	ĊĚĎĀĢĐĠĦĀ ĎĠĊĠĖÈĞĦÌĀĀ Ā ĀĀ	 Ā  Ā	

Table 1. Results of Preliminary Roost Assessment on Buildings earmarked for demolition/repurpose

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
¡Ā	AĠĞĀËÉĒĐĜĞĖĚĐĀ DĖĞĞĊĖĐĜĀHÉĞÈĀ DĖGGĠĖĊĞĐĎĀÉGĖÈ GĖĖĐÌĀÅĘĐĚĀĎĖĖGĊ ĊĚĎĀÇGĖĚĐĚĀ HÉĚĎĖHÌĀĂĐĞĊËĀ GĖĖĐĜĀDGĐĊĞĐĀĖ ĞĐĒĘĐGĊĞĠGĐĀ GĊĚĖĐĜIĀ ĠĚĜĠÉĞĊÇËĐĀĐĖGĀ ÇĊĞĜÌĀ Ā ĈĐGĦĀĘĖĖGĀ DĖĚĎÉĞÉĖĚĀ ÉĚĞĐGĚĊËËĦÌĀÆĖĖĖĐĀÉĜĀ DĖËËĊĘĜÉĚĖĀĐGĖĚĀ HĊĞĐGĀÉĚĖGĐĜĞÌĀÆĖĞĀ ĊĚĎĀĎĐDĊĦĀÉĚĀGĖĖĐĀ	 Ā Ā	ĀĖHÌĀÅĖĀ ĐĢÉĎĐĚDĐĀĚĐĀ ÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
IJĀ	ĂĖĎĐGĔĀ ÇĠĔEĊĖĖHĀHÉĞÈĀ ÉĔĞĊDĞĀGĖĖĐÌĀ ÄĔĞĐGÉĖGĀ ĠĔĐÉĔÉĞÈĐĎÌĀÅĘĐÈ HÉĔĎĖHĜĀĊĔĎĀ ĎĖĖGĜĀËĐĊĢĐĀ ĜĞGĠDĞGĜĐĀĎGĊE ĊĔĎĀĐĤĘĖĜĐĎIĀĔĖ ĜĠÉĞĊÇËĐĀĐĖGĀÇĊ Ā ÂĐĔĐGĊËĂĎĐĞGÉĞĠĜĀ ĖËĎĀÈĐĊĎÇĖĊGĎĜIĀ ËÉĖÈĞĜIĀÇĐĎĜIĀ ĎGĊHĐGĜĀĐĞDÌĀ ÄĔĞĐGĔĊËĀĘĊGĞÉĞĖÉĔĔĀ HĊËËĜĀÊĠĜĞĀÈĊĢĐĀ ĞÈĐĀHĖÉĎĐĔĀ ĐGĊĒĐHĖGĔĂĖĔËĦÌĀ ČÉĔĎĖHĜĀĖĘĐĔÌĀ GÉĔĐĔĀĎĖĖGĜĀ ĖĘĐĔÌĀĀĖĐĞĀĜĘĊDĐĀ DĖĒĘËĐĞĐËĦĀĖĘĐĔIĀ	 Ā	ĀĖHÌĀÅĖĀ ĐĢÉĎĐĔDĐĀĔĐĀ ÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

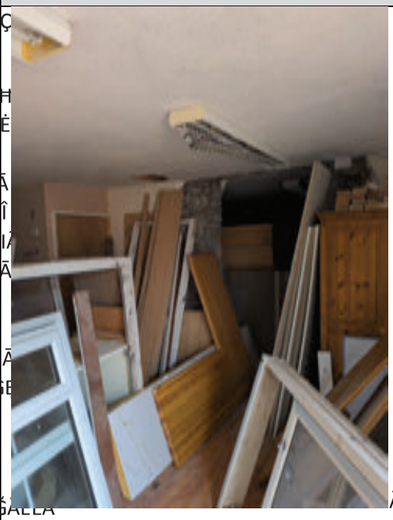
Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		 Ā Ā Ā Ā Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
JĀ	AĖGGĠEĊĞĐĎĀÉGĖÈ GĖĖĐĀHÉĞĖĀDĠĞĀ ËÉĒĐĜĞĖĒĐĀHĊĖËĜ ĆĜĐĎĀĊĜĀĜĘĖGĞĜ ÈĊĖËÌĀÅĘĐĒĀ ÉĒĞĐGÉĖGĀĜĞGĠD ÃĊGĎHĖĖĎĀĐËĖĖGÌ ČĊĖËĀGĐËĊĞÉĢĐËH HĐËËÎĜĐĊËĐĎÌĀÅĘĐ ĊĒĎĀĎGĊĠEÈĞĦĀ ĐGĖĒĀĖĘĐĒĀĎĖĖGĜ HÉĒĎĖHĜĀĐĞDÌĀ ĄÉEĐĖĒĀĐĖĠËÉĒEĀ ĐĢÉĎĐĔĞÌĀÅĖĀ ĊĘĘGĖĘGÉĊĞĐĀ DGĊDĔĜÍDGĐĢÉDĐĜĀ ĖĒĀĞÈĐĀÉĒĞĐGÉĖGĀ ĜĠÉĞĊÇËĐĀĐĖGĀÇĊĞĜÌĀ Ā	 Ā	ĀĖHÌĀĀÅĖĀ ĐĢÉĎĐĔDĐĀĒĐĀ ÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

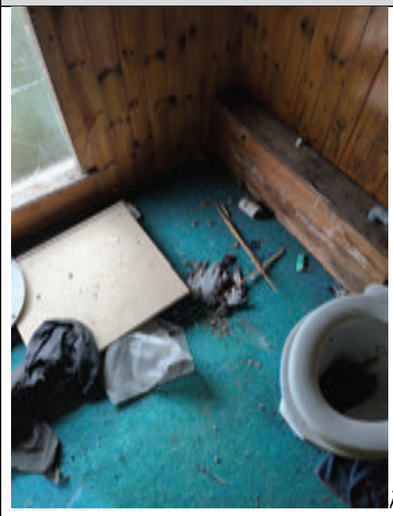
Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	ÅĖĞĀĜĐĊËĐĎÌĀ ÀGĊĠEÈĞĦĀĆĔĎĀ ĎĊĒĘĀ Ā	 Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
ĴĀ	AĖGGĠEĊĞĐĎĀÉGĖĚĀ GĖĖĐĀHÉĞĖĀDĠĞĀ ËÉĚĐĜĞĖĚĐĀHĊĖËĞĀ ÅĘĐĚĀĖĖĐĞÌĀÅĘĐĚĀ HÉĚĎĖHĀĊĚĎĀ ÈĐĊĢÉËĦĀ DĖĚĞĊĚÉĚĊĞĐĎĀÇH ÇÉGĎĀĎGĖĘĘÉĚEĜĀ ÎĜHĊËËĖHÍÊĊDĚĎĊH ĜÏĀĒĐĊĚÉĚEĀÇĊĞĜĀ ĠĚËÉĚĐËĦĀĞĖĀGĖĖĊ Ï ĠÉËĎÉĚEĀÉĚĀ ÇĊDĚEGĖĠĚĎĀÉĚĀ ĘÈĖĞÉÌĀ ĠÉËĎÉĚEĀĴĀ ÉĜĀHĐĜĞĀĜÉĎĐĀĖĐĀ ĠÉËĎÉĚEĀKÍÌĀĀ GĖĚĐĚĀHÉĚĎĖHĜĀ ĊĚĎĀĎĖĖGĜÌĀÆĖĖĖĐĀ ÉĚĞĊDĞÌĀ AĖGGĠEĊĞĐĎĀÉGĖĚĀ ĚĖĀĐĢÉĎĐĚĎĐĀĖĐĀ ĠĜĊEĐĀ	 Ā Ā	ĀĖHÌĀÅĖĀ ĐĢÉĎĐĚĎĐĀĒĐĀ ÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

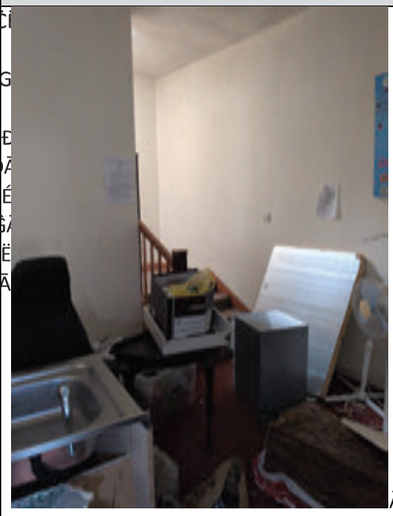
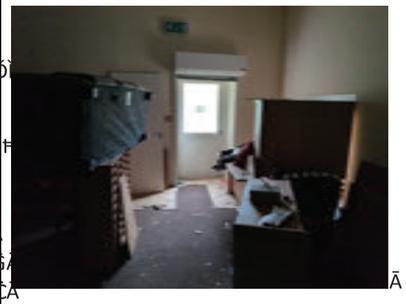
Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		 Ā Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	ËÉĚĐĖĦĀĠĚĜĠÉĞĊÇ ĐĖGĀÇĊĞĜÌĀ ĠÉËĎÉĚEĀËĊGEĐËĦ ÉĚĞĊDĞÌĀĆĜĐĎĀĐĖ ĜĞĖGÉĚEĀHĖĖĎĀ HÉĚĎĖHĜĀĎĖĖGĜÌĀ ÂĐĚĐGĊËËĦĀHĐËËÎ ĜĐĊËĐĎIĀHĊGĒĐGI ĚĖĞĀĊĜĀĎĆĒĘĀĊĜĀ ĖĞĖĐGĀĜÉĞĐĀ ÇĠÉËĎÉĚEĜÌĀ ČÉĚĎĖHĜĀĊĞĀĞĖĐĀ GĐĊGĀÇËĖDĚĐĎĀĜE Ā ĀĖĐĞĀĜĘĊDĐĀ ĊDDĐĜĜÉÇËĐĀÇĠĞĀĿĿA ĢĐGĦĀĘĖĖGĀ DĖĚĎÉĞĖÉĚĀHÉĞĖĀ ĐËĖĖGĜĀDĖËËĊĘĜÉĚEìĀ ĀĖĐĞĀĜĘĊDĐĀĒĖGĐĀ ĎGĊĠEĖĞĦĀHÉĞĖĀ ÇGĖĚĐĚĀHÉĚĎĖHĜÌĀ	 Ā ÌĀĀ	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		 Ā	
KĀ	AĖGGĠEĊĞĐĎĀÉGĖĖ GĖĖĐĀHÉĞĖĀDĠĞĀ ËÉĚĐĜĞĖĚĐĀHĊËËĜ CHĖĀĜĞĖGĐĦĀHÉĞ ËĖĐĞÌĀÅĘĐĚĀ HÉĚĎĖHĀĠĘĜĞĊÉGĜ HĖĐGĐĀĠĘĘĐGĀ ĐËĖĖGĀÉĜĀĖĐĊĢÉĖ DĖĚĞĊĒÉĚĊĞĐĎĀÇH ÇÉGĎĀĎGĖĘĘÉĚEĜĀ ĎĠĐĀĞĖĀÇÉGĎĀĠĜ	 Ā	ĀĖHÌĀÅĖĀ ĐĢÉĎĐĚDĐĀĒĐĀ ÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		 Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	BÉEĚÉĐÉDĊĚĞĀĐĖĚĎ ÇĦĀĘÉEĐĖĚĜĀ Ā Ā	Ā Ā Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	ĘĊĈĞĬĀÄĚĀEÐĚĐGĊĖ ĞĖĖĠĖÈIĀĞĖÐĀ ÇĠÉËĎÉĚEĀÉĜĀĢÐG HÐËËĀĜÐĊËÐĎĀ ĊGĖĠĚĎĀĞĖÐĀGĖËÐ ĜĘĊDÐĀHÉĞĖĀĞĖÐĀ ĖĚËĦĀĊDDÐĜĜĀĘĖÉ ĖÇĢÉĖĠĜĀĊDDÐĜĜĀ ĘĖÉĚĞIĀĞĖÐĀĜĒĊËË ĚĠĒÇÐGĀĖÐĀĖĘÐĚĀ HÉĚĎĖHĜĀ Ā	 Ā Ā	
ĶĀ	CHĖĀĜĞĖGÐĦĀHÉĞĖ ËÉĒÐĀĒĖGĞĊGÌĀ ĂÐĞĊËĀGĖĖÐĀĖÐĀ ĒĖĎÐGĚĀ DĖĚĜĞĠĠDĞÉĖËÌĀÅ ĐĢÉĎÐĚĎÐĀĖÐĀÇĊĜ GĖĖĜĞĖĚEĀÐĖĠĚĎÌĀ ĆĜÐĎĀÐĖGĀĜĞĖGÉ ÐĠGĚÉĞĠGÐĀĊĚĎĀ EÐĚÐGĊËĀ ÐFĠÉĘĒÐĚĞÌĀ ČÉĚĎĖHĜĀĄĈAĀ ĊĚĎĀHÐËËÎĜÐĊËÐĎÌ ÆĠÉĞÐĀHĊGĒĀ ÅDDĊĜÉĖĖČËĀĢÐGĦ ĖËĎĀĎGĖĘĘÉĚEĜĀ ĚÐĊGĀĊĚĀĖĘÐĚĀ HÉĚĎĖHĀĊĞĀĞĖÐĀ ÐGĖĚĞĀĠĘĜĞĊÉGĞĀ ÄĒĘËĦÉĚEĀĞĖĊĞĀĊA ÇĊĞĀĒĊĦĀĖĊĢÐĀ ÇÐÐĚĀÉĚĀĖÐGÐĀĊĞĀ ĜĖĒÐĀĞÉĒÐĀÉĚĀĞĖÐĀ	Ā  Ā	ĀĖHÌĀÅĖĀ ÐĢÉĎÐĚDÐĀĒÐĀ ÇĊĞĜĀ GÐDĖGĎÐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
LĀ	ÅĘĐĚĀÇĊĠĚĀÉĚĀ ĊĎĢĊĚĐĐĎĀĜĞĊĞĐ ĎÉĜĠĐĘĊÉĠÌĀBĒĊĖĖ ĒĖĎĐĠĚĀĜĞĠĠĎĞĠ ĖĚĀĚĖĠĞÈĐĠĚĀĜÉĎ HÉĞÈĀĖĘĐĚĀ HÉĚĎĖHĜÌĀÁĚĞÉĠĐ ĜĞĠĠĎĞĠĠĐĀĖĘĐĚ ĐĤĘĖĜĐĎĀĊĚĎĀ ĎĠĊĐĞĦÌĀ BĒĊĖĖĀÉĚĞĐĠÉĖĠĀ GĖĖĚĜĀ DĖĚĜĞĠĠĎĞĐĎĀ HÉĞÈÉĚĀĞÈĐĀ DĊĠĞÉĖĊĖĐĀĖĐĀĞĚ ĖĢĐĠĊĖĖĀĜĞĠĠĎĞ ÉĚĀĢĐĠĦĀĘĖĖĠĀ DĖĚĎÉĞÉÉĖÌĀAĖËĎÌĀ ĎĠĊĠĖÈĞĦĀĊĚĎĀHĖ ĀĊĠEĐĀDĖĠĠĖĊĞĖ ÉGĖĚĀÇĠĞĚĀ ĜĞĠĠĎĞĠĐĀ DĖĚĎÉĞÉÉĚĀĜĞĊĠĞÉĚĖĀ	 Ā Ā	ÅĐĖĚÉEÉÇĚĐÌĀ ÅĖĀĐĢÉĎĐĚĎĐĀ ĖĐĀÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		 Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		Ā Ā	
CĀ Ā	ČĖĖĎĐĚĀËĖĖĎĖĐIĀ HĖĖĎĀĖĖĖĀHĊĖĖĜĀ ĊĚĎĀĒĐĞĊĖĀGĖĖĖĐIÁ ĠÉĖĎÉĚĖĀĖĊDĚĜĀ ĜĠÉĞĊÇËĐĀĖĘĐĚÉĚ ĖGĀĐĚĞGĊĚDĐĜĀĐ ÇĊĞĜÌĀ ČĖĖĎĐĚĀ ĜĞGĠDĞĠGĐĀÇGĖĚ HÉĚĎĖHĜĀĞĖĀĞÈĐĀ GĐĊGĀĊĖĖĖHÉĚĖĀĊ ĘĖĞĐĚĞÉĊËĀĊDDĐĜGA	Ā	ÅĐĖĖÉĖÉÇËĐÌĀ ÅĖĀĐĢÉĎĐĚDĐĀ ĖĐĀÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	ĞĖĀĎĐĞĐGÉĖGĊĞĐ ĂĠËĞÉĘËĐĀÈĖËĐĜĀ ĊĘĘĐĊGÉĚĖĀÉĚĀĞÈĖ DĐÉĖÉĚĖĀĊĚĎĀĢĐG ĎGĊĠEÈĞĦĀĊĚĎĀHĖ Ā	Ā Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
	ĒĊĞĐGÉĊËĜĀ EĐĎĐGĊËËĦĀHĐËËÎ ĜĐĊËĐĎĀHÉĞÈĀ HĖĖĎĐĚĀHÉĚĎĖHĜĀ	Ā Ā Ā Ā	
ĹĀ	ÅĐĀĒĖĎĐGĚĀ DĖĚĜĞGĠDĞÉĖĚĀHÉ GĖĖĐĀĞÉĖĐĜÌĀ ĠÉĖ ËĊDĚĜĀĜĠÉĞĊÇËĐĀ ĖĘĐĚÉĚEĜĀĖGĀ ĐĚĞGĊĚDĐĜĀĐĖGĀ ÇĊĞĜÌĀ ĆĜĐĜĀĊĀĜÈĐĎĀĐÈ ĜĞĖGÉĚEĀHĖĖĎĀĊĚ ĖĞÈĐGĀEĐĚĐGĊËĀ ÇĠÉËĎÉĚEĀĊĚĀ ĐËĐDĞGÉDĊËĀ	 Ā	ÅĐEËÉEÉÇËĐÌĀ ÅĖĀĐĢÉĎĐĚDĐĀ ĖĐĀÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		Ā Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
ĮÌĀĀ	ĄËĊĦĀÈĖĠĜĐĀÉĔĀ ĐĖGĒĊËĀĖĊGĎĐĚÌĀ GÉDĚĀĊĔĎĀ DĖĔDGĐĞĐĀHĊËËĜI ĞÉËĐĀGĖĖÐÌĀÁĔĞĖĊ ĜĞĠĠDĞĠĠĐĀÉĜĀĖ ĊĔĎĀĎGĊĐĞĦIĀĔĖĀ ĐĔDËĖĜĐĎĀĜĘĊDĐĊ ĖGĀDGĐĢÉDĐĜĀ ĜĠÉĞĊÇËĐĀĐĖGĀÇĊ BĒĊËËĀĘËĊĦÈĖĠĜĐĀ ĜĞĠĠDĞĠĠĐĀÉĔĀ ĘËĊĦEGĖĠĔĎĀ ĜĞĠĠDĞĠĠĐĜĀĔĖĀ ÉĔĞĊDĞĀĊÉĔĎĖHĜIĀ ËĖDĔĐĎĀĠĘĀĖËĎĀ ĐÉGĐĘËĊDĐIĀHĖĖĎĀ GĖĖĐĀĖĘĐĔĀĊĔĎĂ ĎGĊĐĞĦÌĀBĖĒĐĀ HĖĖĎĐĔĀĐĊĜDÉĊÌĀ ÅĖĀĐĢÉĎĐĔDĐĀĖĐĀ ĠĜĊEĐĀ	Ā	ÅĐEËÉEÉÇĖĐÌĀ ÅĖĀĐĢÉĎĐĔDĐĀ ĖĐĀÇĊĞĜĀ GĐDĖGĎĐĎÌĀ

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
		Ā Ā Ā Ā	

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
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Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
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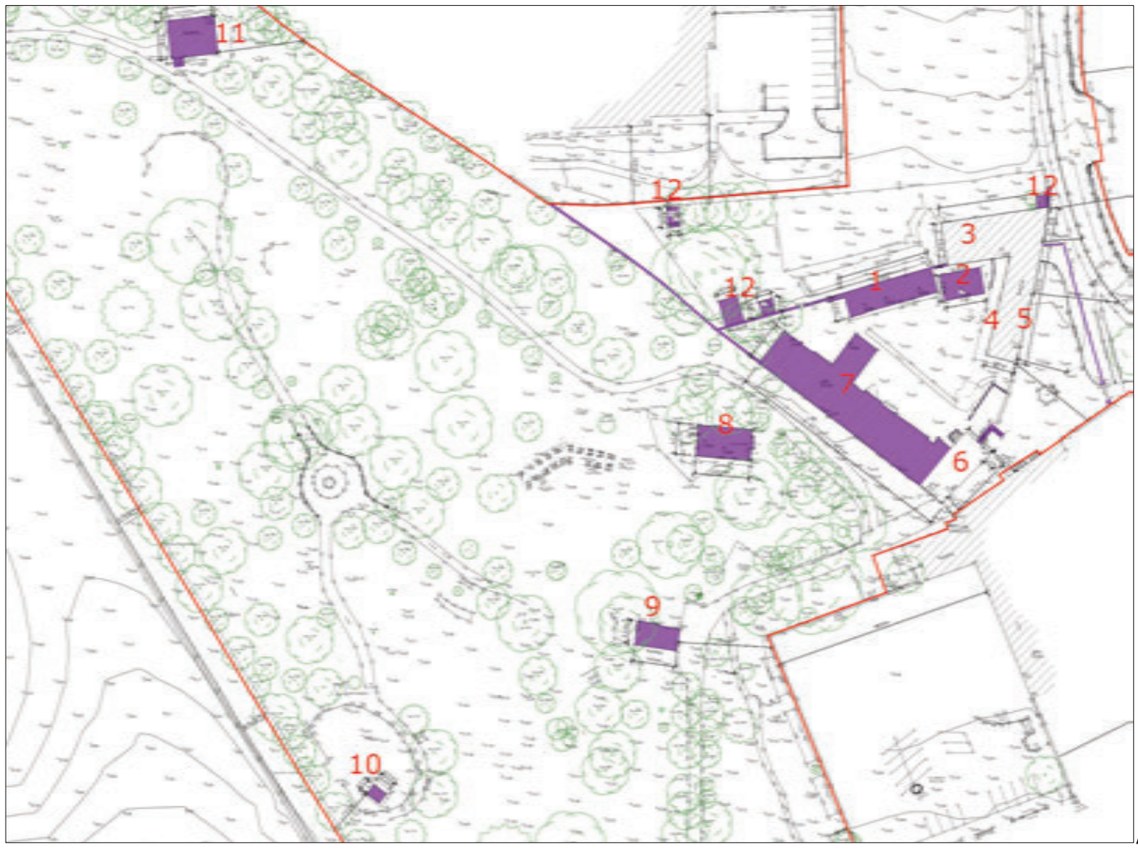

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Figure 1. Locations of buildings included in bat survey

Building number.	Description	Photographs	Potential Roost Feature (PRF) (Collins, 2023)
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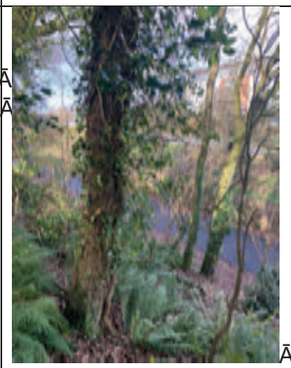
@$:%%"Ā	:BKĀSOĀCFĀ QFMOUFE!Ā ROMFĀSIJDKĀ PBSDIFRĀOGĀ JUX#ĀĀ	 Ā	7OV#Ā9OĀ;<4RĀ QFDOQEFE#Ā
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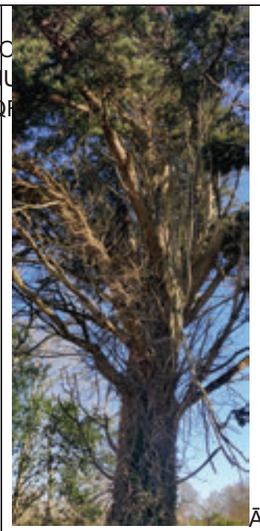
','&Ā	8 ONSFQFXĀ 1XPQFRR#Ā7C OGĀEFNRFĀJ >BLL!ĀMBSTQ SQFF#Ā	 Ā	8OEFQBSFĀUBLTF#Ā /RRFRRFEĀUJBĀ DLJMCJNHĀRTQUFX#ĀĀ 9OĀRJHNRĀOGĀCBSRĀ QFDOQEFE#ĀĀ
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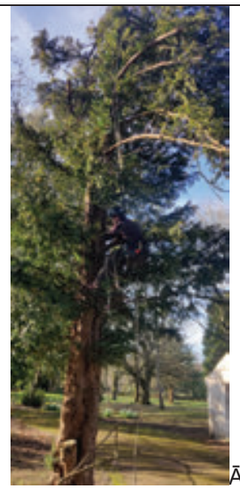
+.(*Ā	9BSJUFĀAFV#Ā =OMFĀ DQFUJDFR#Ā	 Ā	7OVĀSOĀMOEFQBSFĀĀ UBLTF#Ā/RRFRRFEĀ UJBĀDLJMCJNHĀ RTQUFX#ĀĀ9OĀRJHNRĀ OGĀCBSRĀQFDOQEFE#Ā
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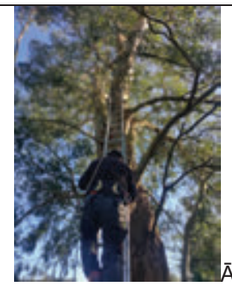
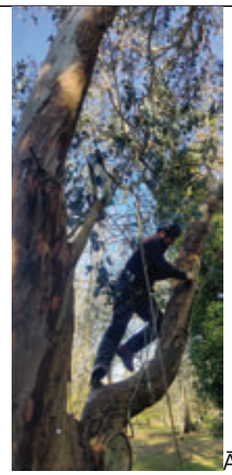
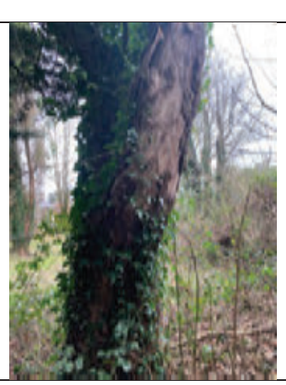
+.)*Ā	9 ON"NBSJUFĀ 3TDBLXPSTR#Ā 7BQHFĀBNEĀ MBSTQF!ĀVJ$IĀ ROMFĀPFFLJNHĀ CBQK#ĀĀ	 Ā	7OVĀSOĀMOEFQBSFĀ UBLTF#Ā/RRFRRFEĀ UJBĀDLJMCJNHĀ RTQUFX#ĀĀ9OĀRJHNRĀ OGĀCBSRĀQFDOQEFEĀ
+.+)Ā	9 ON"NBSJUFĀ 3TDBLXPSTR#Ā 7BQHFĀBNEĀ MBSTQF!ĀVJ$IĀ ROMFĀPFFLJNHĀ CBQK#ĀĀ	 Ā	7OVĀSOĀMOEFQBSFĀ UBLTF#Ā/RRFRRFEĀ UJBĀDLJMCJNHĀ RTQUFX#ĀĀ9OĀRJHNRĀ OGĀCBSRĀQFDOQEFEĀ
+.*%Ā	9 BSJUFĀ3LM#**Ā** =OMFĀ DQFUJDFRĀBNEĀ DOUFQJNHĀOGĀ JUX#ĀĀ		7OVĀUBLTF#Ā9OĀ ;<4RĀQFDOQEFE#Ā

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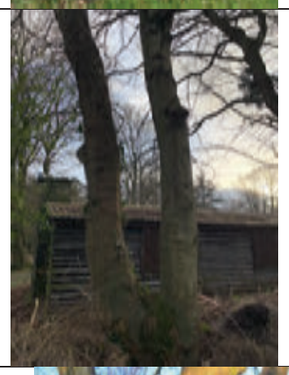
+.&)Ā	9ON"NBSJUFĀ Ā =XDBMOQF#Ā LBQHF!Ā MBSTQF#Ā9OĀ RJHNJGJDBNSĀ RSQTDSTQBLĀ FLFMFNSRĀĀOQĀ JUXĀ		7OVĀUBLTF#Ā9OĀ ;<4RĀQFDOQEFE#Ā
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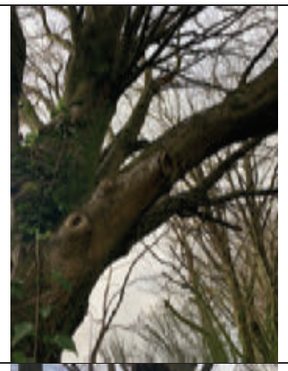
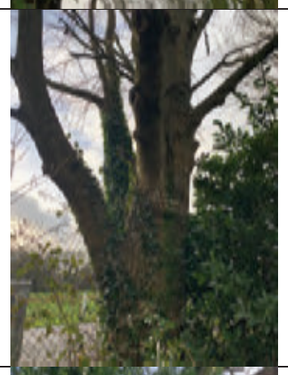
,%%-Ā	9 ON"NBSJUFĀĀ 7JMF#ĀĀ		7OVĀUBLTF#Ā9OĀ ;<4RĀQFDOQEFE#Ā
,%%.Ā	9 ON"NBSJUFĀĀ 7JMF#Ā8BSTQF!Ā SBLL!ĀVJSIĀ ROMFĀJUX#ĀĀ		7OVĀUBLTF#Ā9OĀ ;<4RĀQFDOQEFE#Ā
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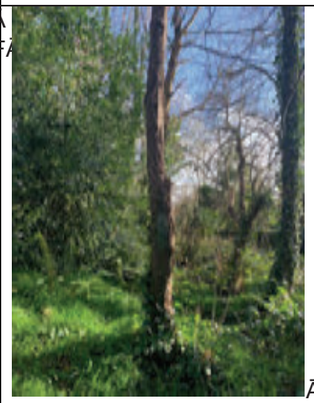
9OĀSBHĀ	=XDBMOQF#Ā >IJN!ĀRJNHLFĀ SQTNK#ĀĀ	 Ā	7OV#Ā9OĀ;<4RĀ QFDOQEFE#Ā

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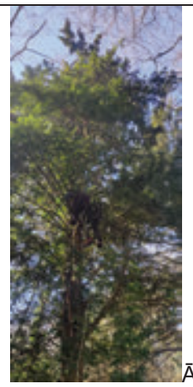
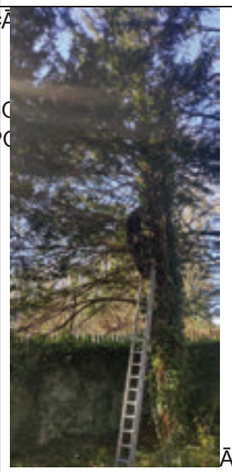
9OĀSBHĀ	AFVĀĀQJHIS #Ā =OMFĀJUXĀ DOUFQJNH#Ā 0QFBKRĀJNSOĀ SIQFFĀBSĀ BPPQOWĀ&%Ā GFFS#Ā=OMFĀ RIBLLOVĀ DQFUJDFR#ĀĀ	 Ā	8OEFQBSFĀUBLTF#Ā /RRFRRFEĀUJBĀ DLJMCJNHĀRTQUFX#ĀĀ 9OĀRJHNRĀOGĀCBSRĀ QFDOQEFE#Ā
9OĀSBHĀ	AFVĀĀLFGS #Ā =OMFĀJUXĀ DOUFQJNH!Ā CQFBKRĀJNSO SVOĀBSĀBPPO &%ĀGFFS#Ā =OMFĀ RIBLLOVĀ DQFUJDFR#Ā	 Ā	8OEFQBSFĀUBLTF#Ā /RRFRRFEĀUJBĀ DLJMCJNHĀRTQUFX#ĀĀ 9OĀRJHNRĀOGĀCBSRĀ QFDOQEFE#Ā

- **Appendix 9-5 – Report in Support of Appropriate Assessment (AA) Screening and Natura Impact Statement - Phase 1 ‘The Farm’**

DixonBrosnan
environmental consultants

Report in Support of Appropriate Assessment (AA) Screening and Natura Impact Statement (NIS)

Phase 1 'The Farm',
Large Scale Residential Development (LRD),
Ballinure, Blackrock,
Cork City.

On Behalf of
Estuary View Developments Ltd

December 2025

Project	**Report in Support of Appropriate Assessment (AA) Screening and Natura Impact Statement (NIS) Phase 1 'The Farm', Large Scale Residential Development (LRD), Ballinure, Blackrock, Cork City**	
Client	Estuary View Developments Ltd	
Project Ref.	25098	
Report No.	25098.01	
Client Ref.	-	
Date	**Revision**	**Prepared By**
08/12/25	1st draft	Carl Dixon BSc MSc
11/12/25	Issue to client	Sorcha Sheehy BSc PhD

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1. Introduction

1.1 Background

The information in this report has been compiled by DixonBrosnan Environmental Consultants, on behalf of the applicant. It provides information on and assesses the potential for the proposed Phase 1 'The Farm' of the Bessborough Large Scale Residential Development (LRD) at Ballinure, Blackrock, Cork City to impact on any Natura 2000 sites within its zone of influence. The information in this report forms part of and should be read in conjunction with other pre-planning application consultation documentation.

The Birds Directive (2009/147/EC) and the Habitats Directive (92/42/EEC) put an obligation on EU Member States to establish the Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species across the EU. In Ireland, the Natura 2000 network of European sites comprises Special Areas of Conservation (SACs, including candidate SACs) and Special Protection Areas (SPAs, including proposed SPAs). SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites and from these the conservation objectives of the site are derived. The Birds and Habitats Directives set out various procedures and obligations in relation to nature conservation management in Member States in general, and of the Natura 2000 sites and their habitats and species in particular. A key protection mechanism is the requirement to consider the possible nature conservation implications of any plan or project on the Natura 2000 site network before any decision is made to allow that plan or project to proceed. Not only is every new plan or project captured by this requirement but each plan or project, when being considered for approval at any stage, must take into consideration the possible effects it may have in combination with other plans and projects when going through the process known as Appropriate Assessment (AA).

The obligation to undertake Appropriate Assessment (AA) derives from Article 6(3) and 6(4) of the Habitats Directive, and both involve a number of steps and tests that need to be applied in sequential order. Article 6(3) is concerned with the strict protection of sites, while Article 6(4) is the procedure for allowing derogation from this strict protection in certain restricted circumstances. As set out in Section 177U of the Planning and Development Act 2000 as amended, a screening for appropriate assessment of an application for consent for the proposed development must be carried out by the competent authority to assess, in view of best scientific knowledge, if the proposed development, individually or in combination with another plan or project is likely to have a significant effect on any European site. Each step in the assessment process precedes and provides a basis for other steps. The results at each step must be documented and recorded carefully so there is full traceability and transparency of the decisions made.

1.2 Aim of Report

The purpose of this report is to inform the AA process as required under the Habitats Directive (92/43/EEC) in instances where a plan or project may give rise to significant impacts on a Natura 2000 site. This report aims to inform the Appropriate Assessment process in determining whether the development, both alone and in combination with other plans or projects, are likely to have a significant impact on the Natura 2000 sites in the proposed development site, in the context of their conservation objectives and specifically on the habitats and species for which the sites have been designated.

This report has been prepared with regard to the following guidance documents, where relevant.

- Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC (European Commission (EC), 2018);
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodical Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission (EC), 2001);
- Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC (European Commission, (EC) 2007);
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision);
- Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10 (Department of Environment, Heritage and Local Government, 2010);
- Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011);
- Commission notice Guidance document on wind energy developments and EU nature legislation, (EC 2020);
- Communication from the Commission on the precautionary principle. European Commission (2000)
- Assessment of plans & projects in relation to N2K sites – Methodological Guidance (EC 2021);
- Guidance document on the strict protection of animal species of Community interest under the Habitats Directive (EC 2021)
- CJEU Case C 164/17 Edel Grace Peter Sweetman v An Bord Pleanála.

1.3 Authors of Report

This report and survey work was completed by Dr. Sorcha Sheehy PhD (Ecology/ornithology) and Carl Dixon MSc (Ecological Monitoring). Field surveys were completed by Carl Dixon MSc.

Carl Dixon holds an Honours Degree (BSc) in Ecology and a Masters (MSc) in Ecological Monitoring from UCC. He is a senior ecologist who has over 25 years' experience in ecological

assessment. Prior to setting up DixonBrosnan Environmental Consultants in 2000, Carl set up and ran Core Environmental Services which included REPS planning for landowners and ecological assessments. Carl has particular experience in freshwater ecology, including electrofishing fish stock assessments and water quality assessments. He also has considerable experience in habitat mapping and mammal ecology including survey work and reporting in relation to Badgers and bats. He was the primary coordinator and surveyor for a heritage council-funded project serving all the river bridges in county Waterford for bats. He has designed bat roosts for Lesser horseshoe in conjunction with the NPWS for sites in West Cork. He is currently designing a dedicated bat roost for a large pharmaceutical plant in Co Limerick. Carl has completed specialized training courses relating to bats in Ireland and the UK and has considerable experience in using a variety of bat survey equipment and subsequent software analysis of data.

Other competencies include surveys for invasive species and bird surveys. Carl has extensive experience with regards to EIAR and NIS mitigation and impact assessment. He has experience in large-scale industrial developments with extensive experience in complex assessments as part of multi-disciplinary teams. Such projects include gas pipelines, incinerators, electrical cable routes, oil refineries and quarries.

Sorcha Sheehy PhD (Ecology/ornithology) is an ecologist and ornithologist who has worked for 15 years in environmental consultancy. She has worked on Screening/NISs for a range of small and large-scale projects with expertise in assessing impacts on birds. Sorcha's PhD research focused on bird behaviour at airports, where she studied bird avoidance behaviour and collision risk to aircraft. Her research involved field observations, post-mortem analysis and radar surveys. Sorcha has worked on bird collision risk assessments at airports throughout Ireland including Dublin airport, Cork airport, Shannon airport and Kerry airport. During her consultancy work Sorcha carried out field-based surveys and environmental reports including NIS, AA screening and EIARs. Notable projects include the Arklow Bank Wind Park, Indaver Ireland Waste Management Facility at Ringaskiddy, Irving Oil Whitegate Refinery (IOWR), Shannon LNG and Greenlink Interconnector.

2. Regulatory Context and Appropriate Assessment Procedure

2.1 Regulatory Context

The Habitats Directive (Council Directive 92/43/EEC on the *Conservation of Natural Habitats and of Wild Fauna and Flora*) aims to maintain or restore the favourable conservation status of habitats and species of community interest across Europe. The requirements of these directives are transposed into Irish law through the European Communities (Birds and Natural Habitats Regulations; S.I. No. 477 of 2011).

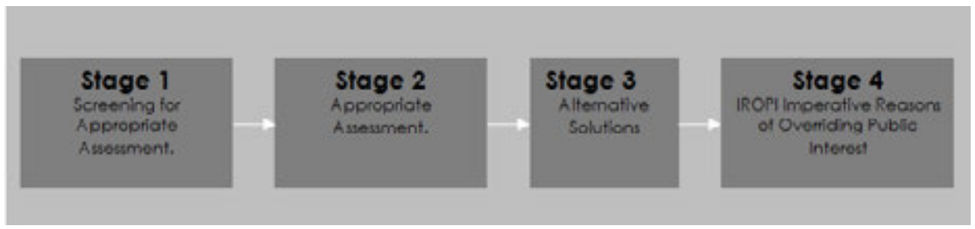
Under the Directive a network of sites of nature conservation importance have been identified by each Member State as containing specified habitats or species requiring to be maintained or returned to favourable conservation status. In Ireland the network consists of SACs and SPAs, and also candidate sites, which form the Natura 2000 network.

Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the *Conservation of Natural Habitats and of Wild Fauna and Flora* (as amended) (hereafter 'the Habitats Directive') requires that, any plan or project not directly connected with or necessary to the management of a designated site, but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. A competent authority (e.g. the EPA or Local Authority) can only agree to a plan or project after having determined that it will not adversely affect the integrity of the site concerned.

The possibility of a significant effect on a designated or "European" site has generated the need for an appropriate assessment to be carried out by the competent authority for the purposes of Article 6(3). A Stage Two Appropriate Assessment is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site. The first (Screening) Stage for appropriate assessment operates merely to determine whether a (Stage Two) Appropriate Assessment must be undertaken on the implications of the plan or project for the conservation objectives of relevant European sites.

2.2 Appropriate Assessment Procedure

The assessment requirements of Article 6(3) establish a stage-by-stage approach. This assessment follows the stages outlined in the 2001 European Commission publications "Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Articles 6(3) and 6(4) of the Habitats Directive 92/43/EEC" (2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC Office for Official Publications of the European Communities, Luxembourg (EC, 2019);



The stages are as follows:

Stage One: Screening — the process which identifies any appreciable impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant;

Stage Two: Appropriate assessment — the consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts;

Stage Three: Assessment of alternative solutions: The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site. It is confirmed that no reliance is placed by the developer on Stage Three in the context of this application for development consent;

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain — an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed (it is important to note that this guidance does not deal with the assessment of imperative reasons of overriding public interest). Again, for the avoidance of doubt, it is confirmed that no reliance is placed by the developer on Stage Four in the context of this application for development consent.

It is the responsibility of the competent authority to make a decision on whether or not the proposed development should be approved, taking into consideration any potential impact upon any Natura 2000 site within its zone of influence.

3. Receiving Environment

3.1 Existing site

The proposed development site is located in Blackrock, a suburban area approximately 4.5km southwest of Cork City (**Figure 1**). The National route N40 runs adjacent to the southern boundary of the site. The Douglas Estuary to the south of the site forms part of the Cork Harbour Special Protection Area (SPA). It is a large, enclosed tidal channel which is dominated by estuarine habitats at low tide. Urbanised business parks surround the site to the west, north and east. Access to and from the site is via an existing access road, Bessborough Road. To the north and west of the proposed development site there is a mixture of industrial development and residential development. Mahon Golf course to east of the site is a prominent feature in the local landscape. The Bessborough site is characterised by a mix old and new buildings and large numbers of mature trees in a parkland setting. Two large fields are used for grazing horses and the band of woodland along the eastern boundary and the formal gardens are important local features in a landscape that is generally devoid of mature trees. Unused sections of the site are being colonised by scrub and immature woodland.

Figure 1. Location of proposed development site

3.2 Proposed Development

A Large-Scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork. The development will consist of the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structure and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: Block C (9 no. 1-bedroom & 25 no. 2-bedroom over 3 storeys), Block D (34 no. 1-bedroom & 24 no. 2-bedroom over 3-4 storeys), Block E (27 no. 1-bedroom, 20 no. 2-bedroom & 1 no. 3-bedroom over 4-5 storeys). It is proposed to use retained Block A and Block B for resident amenities which include home workspace, library, lounge and function space.

The proposal includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas, as well as new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessboro Road. The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road. Part of the

proposed development is situated within the curtilage of Bessborough House which is a Protected Structure (Reference: RPS 490).

An overview of the proposed development site is shown in **Figure 2**. Additional site drawings are included in **Appendix 2** of this report.

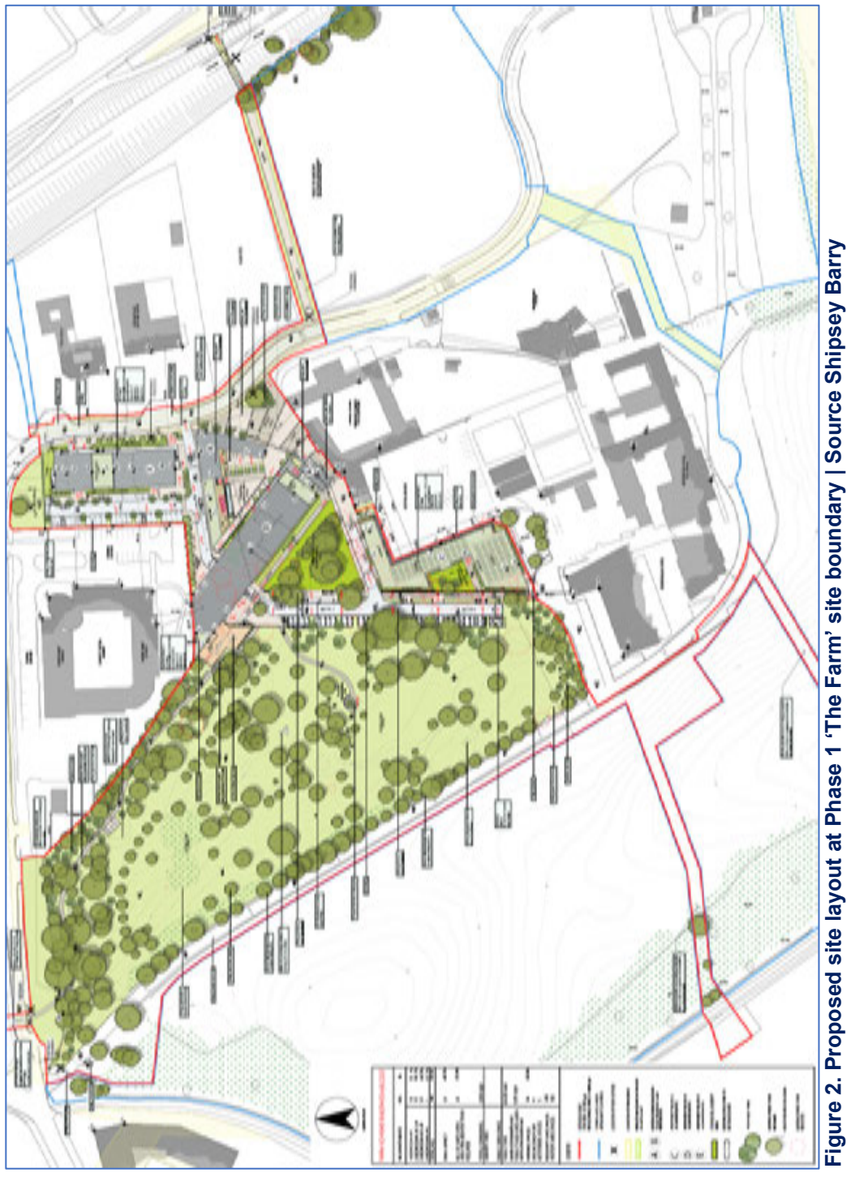


Figure 2. Proposed site layout at Phase 1 'The Farm' site boundary | Source Shipsey Barry

3.3 Surface water

The proposed surface water network will include a storm drainage pipe network, attenuation storage structures and several SuDS features which will aid the reduction of runoff volumes by slowing surface water flows, providing the opportunity for evapotranspiration and providing the opportunity for infiltration to ground. Both the interception and attenuation storage requirements of GDSDS will be sufficiently met.

An assessment of the potential SuDS measures that could be incorporated within the site was conducted using the SuDS Manual, CIRIA 753 as guidance. The following SuDS features have been identified as applicable and will be provided within the proposed scheme:

Green Roofs: Will be provided on flat roofs, where possible. The green roof will be an extensive type with sedum planting at the surface with a drainage layer beneath. The drainage layer will convey flows to discharge locations. It is not proposed to restrict the discharges from the roofs. Where possible discharges from roofs will be tied into planters or permeable paving substrata via diffusers.

Detention Basin: A landscaped depression will be provided to the north of the site to collect surface water run-off from the domed roof of Apartment Block E. The basins will remain dry in most instances of light to moderate rainfall. This basin will be unlined to facilitate percolation into the ground and any overflow will enter into the main gravity storm system.

Tree Pits/Bioretention Planters: Will be provided in every feasible location where there is a proposed tree or planter. The tree pits will contain engineered soil filled tree boxes with drainage pipes beneath to link trees together and tie in with the proposed surface water sewer. The bioretention planters will consist of a shallow landscaped depression at the surface with a drainage layer beneath.

Permeable Paving: Will be provided for all private within-curtilage parking spaces. Permeable paving will be a Type B as per SuDS Manual, CIRIA 753, a combination of infiltration and piped drainage.

Attenuation Tank: Will be required to manage the volume of runoff expected from the development.

The existing mature trees in the parkland area to the west of the developed area are set to be retained as part of this application, which limits the implementation of further SuDS measures in this space such as swales and detention ponds. Hence attenuation storage shall be implemented as a final option to ensure no increase in site run-off as a result of the proposed development.

It is proposed to provide a hydro-brake, or similar approved, at the outfall of the surface water catchment to restrict the outflow of water from the subject site to pre-development levels. The hydro-brake will be fitted with a pull cord bypass and a penstock valve installed on the inlet to the manhole for maintenance purposes.

Manholes will be constructed on all pipe-runs at changes in sewer direction, changes in gradients, at significant sewer connections and at a maximum spacing of 90m on all straight sections of pipework. The gravity surface water sewers have been designed using MicroDrainage design software. The overall drainage arrangement is shown on Drawing No. 25629-EEI-UD-XX-DR-CE-04000, included with this submission.

The SuDS features will be designed to work in sequence thereby creating a treatment train. Please refer to Drawing No. 25629-EEI-UD-XX-DR-CE-04002 for the SuDS layout (See **Appendix 2**). Both the interception and attenuation storage requirements of GDSDS will be sufficiently met, therefore treatment and long-term storage are not required.

3.4 Foul Water

Cork City Council / Uisce Eireann drainage records show that there is an existing 375/450mmØ foul sewer located to the west of the Phase 3 lands, outside of the boundary of the Applicant's lands, which runs north to south and discharges to the Bessborough Wastewater Pumping Station (WWPS). From the WWPS a 350mmØ rising main heads east crossing through the greenfield area in the ownership of the Applicant before turning north along the Blackrock to Passage West Greenway.

A feasibility study of the local area has revealed that there is an existing a 150mmØ foul sewer in the road adjacent to the eastern boundary of the Phase 1 site which runs north to south before turning in a westerly direction and connecting to the WWPS described above. This sewer was constructed under planning reference 03/27028.

Uisce Éireann have issued a Confirmation of Feasibility (COF) stating that the site could be serviced by its wastewater infrastructure network. This COF is included in **Appendix 3** of this report.

Uisce Éireann advised that the proposed connection should be made directly to the WWPS, via a new inlet sewer. We are advised that there is sufficient capacity in that WWPS to serve the proposed development.

The design of the proposed wastewater network will be carried out in accordance with Uisce Éireann's Code of Practice for Wastewater Infrastructure. A Design Submission has been submitted to Uisce Éireann, who have issued a Statement of Design Acceptance in return.

Wastewater collection within the proposed development will be via a network of gravity sewers. The wastewater flows will be collected and conveyed in in a westerly direction, from the western boundary of the proposed development site and will connect directly to the WWPS. The final connection from the western edge of the lands to the existing WWPS will be undertaken using directional-drilling techniques to ensure that the existing western boundary wall to the lands will remain undisturbed during construction.

The wastewater collection system will be designed and will be constructed in accordance with Uisce Éireann's Code of Practice for Wastewater Infrastructure to ensure self-cleansing velocities will be achieved on all pipe runs. The pipes proposed as part of this design have been sized in accordance with IW-CDS-5030-03 (Revision 2 2020).

Manholes will be constructed on all pipe-runs at changes in sewer direction, changes in gradients, at significant sewer connections and at a maximum spacing of 90m on all straight sections of pipework. The gravity wastewater sewers will be designed using MicroDrainage design software. The foul sewer layout plans are presented on Drawing No 25629-EEI-UD-XX-DR-CE-04000.

4. Stage1 - Screening

4.1 Overview

4.1.1 Introduction

This section contains the information required for the competent authority to undertake screening for AA for the proposed development.

The aims of this section are to:

- Determine whether the proposed development is directly connected with, or necessary to, the conservation management of any Natura 2000 sites;
- Provide information on, and assess the potential for the proposed development to significantly effect on Natura 2000 Sites (also known as European sites); and
- Determine whether the proposed development, alone or in combination with other projects, is likely to have significant effects on Natura 2000 sites in view of their conservation objectives.

The proposed development is not directly connected with, or necessary to the conservation management of any Natura 2000 sites.

4.1.2 Source-Pathway-Receptor Model

The likely effects of the proposed development on any European site has been assessed using a source-pathway-receptor model, where:

- A ‘source’ is defined as the individual element of the proposed works that has the potential to impact on a European site, its qualifying features and its conservation objectives.
- A ‘pathway’ is defined as the means or route by which a source can affect the ecological receptor.
- A ‘receptor’ is defined as the SCI of SPAs or QI of SACs for which conservation objectives have been set for the European sites being screened.

A source-pathway-receptor model is a standard tool used in environmental assessment. In order for an effect to be likely, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism results in no likelihood for the effect to occur. The source-pathway-receptor model was used to identify a list of European sites, and their QIs/SCIs, with potential links to European sites. These are termed as ‘relevant’ European sites/QIs/SCIs throughout this report.

4.1.3 Likely Significant Effect

The threshold for a Likely Significant Effect (LSE) is treated in the screening exercise as being above a de minimis level. The opinion of the Advocate General in CJEU case C-258/11 outlines:

“the requirement that the effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded.

If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.”

In this report, therefore, ‘relevant’ European sites are those within the potential ZoI of activities associated with the construction and operation of the proposed development, where LSE pathways to European sites were identified through the source-pathway-receptor model.

4.1.4 Screening Process

The Screening for Appropriate Assessment will incorporate the following steps:

Definition of the zone of influence for the proposed works;

- Identification of the European sites that are situated (in their entirety or partially or downstream) within the zone of influence of the proposed works;
- Identification of the most up-to-date QIs and SCIs for each European site within the zone of influence;
- Identification of the environmental conditions that maintain the QIs/SCIs at the desired target of Favourable Conservation Status;
- Identification of the threats/impacts – actual or potential that could negatively impact the environmental conditions of the QIs/SCIs within the European sites;
- Highlighting the activities of the proposed works that could give rise to significant negative impacts; and
- Identification of other plans or projects, for which in-combination impacts would likely have significant effects.

4.1.5 Zone of Influence

The Zone of Influence (ZoI) comprises the area within which the proposed development may potentially affect the conservation objectives or qualifying interests (QI) of a Natura 2000 site. There is no recommended zone of influence, and guidance from the National Parks and Wildlife Service (NPWS) recommends that the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects (cumulative).

In ecological and environmental impact assessment, for an effect to occur there must be a risk enabled by having a source (e.g. construction works at a proposed development site), a ‘receptor’ (e.g. SAC or other ecologically sensitive feature), and a pathway between the source and the receptor (e.g. a watercourse which connects the proposed development site to the SAC). A ‘receptor’ is defined as the Special Conservation Interest (SCI) of SPAs or Qualifying Interest (QI) of SACs for which conservation objectives have been set for the European sites being screened.

Consideration is therefore given to the source-pathway-receptor linkage and associated risks between the proposed development and Natura 2000 sites. For a significant effect to occur

there needs to be an identified risk whereby a source (e.g. contaminant or pollutant arising from construction activities) affects a particular receptor (i.e. Natura 2000 site) through a particular pathway (e.g. a watercourse which connects the proposed development with the Natura 2000 site).

The identification of risk does not automatically mean that an effect will occur, nor that it will be significant. The identification of these risks means that there is a possibility of environmental or ecological damage occurring. The level and significance of the effect depends upon the nature of the consequence, likelihood of the risk and characteristics of the receptor.

The precautionary principle is applied for the purposes of screening to ensure that consideration and pre-emptive action is undertaken where there is a lack of scientific evidence. It is noted that mitigation measures are not taken into account in the AA screening assessment process.

4.2 Desktop Review

A desktop review facilitates the identification of the baseline ecological conditions and key ecological issues relating to Natura 2000 sites and facilitates an evaluation assessment of potential in-combination impacts. Sources of information used for this report include reports prepared for the Cork City area and information from statutory and non-statutory bodies. The following sources of information and relevant documentation were utilised:

- National Parks & Wildlife Service (NPWS) - www.npws.ie
- Environmental Protection Agency (EPA) – www.epa.ie
- National Biodiversity Data Centre (NBDC) – www.biodiversityireland.ie
- Cork City Biodiversity Action Plan 2009-2014;
- Cork City Development Plan 2022-2028;
- Birdwatch Ireland - http://www.birdwatchireland.ie/
- Invasive Species Ireland - http://www.invasivespeciesireland.com/
- Best Practice Guidance for Habitat Survey and Mapping (Heritage Council, 2011)
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (National Roads Authority, 2009).
- Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) European Union, 2017 and
- Cork City D0033-01 Wastewater Treatment Plant (WWTP) Annual Environmental Report 2023 (Uisce Eireann 2024)

4.3 Natura 2000 Sites within Zone of Influence

In accordance with the European Commission Methodological Guidance (EC 2018), a list of Natura 2000 sites that can be potentially affected by the proposed development has been compiled. All SACs, candidate SACs (cSAC) and SPAs sites within the zone of influence of the proposed development have been identified in **Table 2** and shown in **Figure 3**.

The Cork Harbour SPA is located approximately 330m south of the of the proposed development site. The Great Island Channel SAC is located approximately 4.7km west of the proposed development site. Both Natura 2000 sites are located within the Cork Harbour estuarine complex and are hydrologically connected to one another. During construction and operation, surface water runoff from the site will be discharged to the Douglas Estuary, which forms part of the Cork Harbour SPA. Therefore, surface water runoff during the construction and/or operational phases of the proposed development could potentially discharge impact on Cork Harbour SPA. Habitats within or in the vicinity of the proposed development site could potentially provide *ex situ* foraging habitat for SCI birds. Therefore, noise and activity during the construction and operational phases could potentially impact on SCI species. The proposed 4 to 5 storey buildings at the site could potentially present a collision risk to SCI bird species overflying the area. During operation, wastewater from the proposed development will be diverted to the Cork City WWTP and discharged to Cork Harbour, potentially impacting on Cork Harbour SPA.

Therefore, a source-pathway-receptor link exists between the source (proposed development) and the receptor (Cork Harbour SPA (site code 004030)) via a potential pathway (reductions in water quality, spread of invasive species and disturbance during the construction and/or operational phases and collision during the operational phase).

Although unlikely given the distance involved, surface water and wastewater discharges from the proposed development could potentially impact on the Great Island Channel SAC via Cork Harbour. Therefore, a source-pathway-receptor link has been identified between the source (proposed development) and the receptor (Great Island Channel SAC (site code 001058)) via a potential pathway (surface water runoff during construction/operational phase, the spread of invasive species during construction and wastewater discharge during the operational phase).

Given the distances involved and the lack of hydrological connection, no pathway for impact has been identified between the proposed development site and any other Natura 2000 site.

Table 1. Natura 2000 sites and their location relative to the proposed development site

Natura 2000 Sites	Site Code	Distance at closest point and potential source-pathway-receptor link	Qualifying Interests (* denotes a priority habitat)
Special Area of Conservation (SAC)			
Great Island Channel SAC	001058	4.7km. A source-pathway-receptor link has been identified between the source (proposed development site) and the receptor (Great Island Channel SAC) via a potential pathway (impacts on water quality and spread of invasive species during construction or operational phase).	Habitats 1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
Special Protection Area (SPA)			
Cork Harbour SPA	004030	3300m. A source-pathway-receptor link has been identified between the source (proposed development site) and the receptor (Cork Harbour SPA) via a potential pathway (impacts on water quality, disturbance or spread of invasive species during construction or operational phase and collision risk).	Birds A056 Shoveler (*Anas clypeata*) A149 Dunlin (*Calidris alpina*) A140 Golden Plover (*Pluvialis apricaria*) A050 Wigeon (*Anas penelope*) A028 Grey Heron (*Ardea cinerea*) A069 Red-breasted Merganser (*Mergus serrator*) A142 Lapwing (*Vanellus vanellus*) A130 Oystercatcher (*Haematopus ostralegus*) A141 Grey Plover (*Pluvialis squatarola*) A052 Teal (*Anas crecca*) A054 Pintail (*Anas acuta*) A157 Bar-tailed Godwit (*Limosa lapponica*) A162 Redshank (*Tringa totanus*) A183 Lesser Black-backed Gull (*Larus fuscus*) A179 Black-headed Gull (*Chroicocephalus ridibundus*) A004 Little Grebe (*Tachybaptus ruficollis*) A160 Curlew (*Numenius arquata*) A182 Common Gull (*Larus canus*) A048 Shelduck (*Tadorna tadorna*) A017 Cormorant (*Phalacrocorax carbo*) A193 Common Tern (*Sterna hirundo*) A005 Great Crested Grebe (*Podiceps cristatus*) A156 Black-tailed Godwit (*Limosa limosa*)

Natura 2000 Sites	Site Code	Distance at closest point and potential source-pathway-receptor link	Qualifying Interests (* denotes a priority habitat)
			Habitats Wetlands

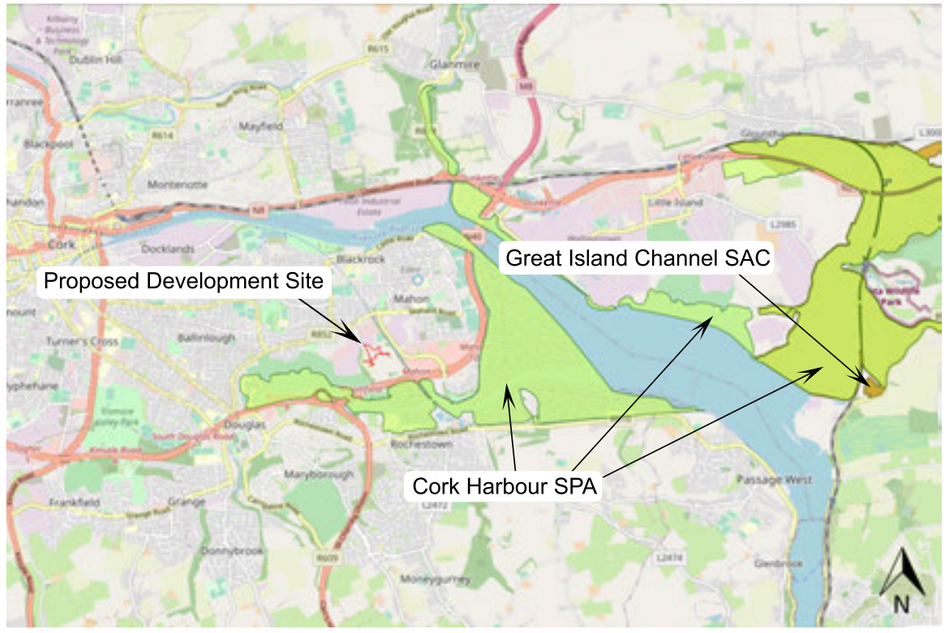


Figure 3. Natura 2000 sites within zone of influence of the Phase 1 'The Farm' development site (approximate location) | Source EPA Envision Mapping | Not to scale

4.3.1 Cork Harbour SPA (site code 004030) Site Synopses

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poulnabibe inlets.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor* and *Corophium volutator*. Green algae species occur on the flats, especially *Ulva* sp. Cordgrass (*Spartina* sp.) has colonised the

intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Mallard, Pintail, Shoveler, Redbreasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Blackheaded Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (1,896) and Redshank (2,149) - all figures given are five-year mean peaks for the period 1995/96 to 1999/2000. Nationally important populations of the following 19 species occur: Little Grebe (57), Great Crested Grebe (253), Cormorant (521), Grey Heron (80), Shelduck (2,009), Wigeon (1,791), Teal (1,065), Mallard (513), Pintail (57), Shoveler (103), Red-breasted Merganser (121), Oystercatcher (1,809), Golden Plover (3,342), Grey Plover (95), Lapwing (7,569), Dunlin (9,621), Bartailed Godwit (233), Curlew (2,237) and Greenshank (46). The Shelduck population is the largest in the country (over 10% of national total). Other species using the site include Mute Swan (38), Whooper Swan (5), Pochard (72), Gadwall (6), Tufted Duck (64), Goldeneye (21), Coot (53), Ringed Plover (73), Knot (26) and Turnstone (113). Cork Harbour is an important site for gulls in winter and autumn, especially Black-headed Gull (3,640), Common Gull (1,562) and Lesser Black-backed Gull (783), all of which occur in numbers of national importance. Little Egret and Mediterranean Gull, two species which have recently colonised Ireland, also occur at this site.

A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter.

Cork Harbour has a nationally important breeding colony of Common Tern (102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.

A full site synopsis for the Cork Harbour SPA is included as **Appendix 1** of this report.

4.3.2 Great Island Channel SAC (Site Code 001058)

Great Island Channel comprises the north-eastern part of Cork Harbour. It includes all of the Great Island Channel, the intertidal areas between Fota Island and Little Island, and also the estuary of the Dungourney and Owennacurra Rivers as far as Midleton. The North Channel is on average 1km wide but extends for about 9km from east to west. The area is well sheltered, and the intertidal sediments are predominantly fine muds. In addition to the estuarine habitats, the site includes some wet grassland areas which are used by roosting birds, as well as some broad- leaved woodland at Fota Island. Compared to the rest of Cork Harbour, the Great Island Channel is relatively undisturbed, with aquaculture the main activity. The site is of ecological importance for its examples of intertidal mud and sand flats and Atlantic salt meadows of the estuarine type. Both habitats are fairly extensive in area and of moderate to good quality.

A full site synopsis for the Great Island Channel SAC is included as **Appendix 1** of this report.

4.3.3 Natura 2000 sites – Features of interests and conservation objectives.

The EU Habitats Directive contains a list of habitats (Annex I) and species (Annex II) for which SACs must be established by Member States. Similarly, the EU Birds Directive contains lists of important bird species (Annex I) and other migratory bird species for which SPAs must be established. Those that are known to occur at a site are referred to as 'qualifying interests' and are listed in the Natura 2000 forms which are lodged with the EU Commission by each Member State. A 'qualifying interest (QI)' (or 'special conservation interest (SCI)' in the case of SPAs) is one of the factors (such as the species or habitat that is present) for which the site merits designation. The National Parks and Wildlife Service (NPWS) are responsible for the designation of SACs and SPAs in Ireland.

The conservation objectives for the Great Island Channel SAC are detailed in: NPWS (2014) *Conservation Objectives: Great Island Channel SAC 001058. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*

The NPWS state that the conservation objectives for Great Island Channel SAC should be used in conjunction with those for Cork Harbour SPA as appropriate.

The conservation objectives for Cork Harbour SPA site are detailed in: NPWS (2014) *Conservation Objectives: Cork Harbour SPA 004030. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and SACs and SPAs are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network. European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status sites designated as SACs and SPAs. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. Favourable conservation status of a habitat is achieved when its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable. The species and habitats listed as QIs/SCIs for the Great Island Channel SAC and Cork Harbour SPA and specific conservation objectives are included in **Tables 2 and 3**.

Table 2. Qualifying Interests (Qis) for the Great Island Channel SAC

Habitat Code	Habitat	Conservation objective
1140	Mudflats and sandflats not covered by seawater at low tide	Maintain
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Restore

Restore = Restore favourable conservation condition, Maintain = Maintain favourable conservation condition

Table 3. Special Conservation Interests (SCIs) for the Cork Harbour SPA

Species code	Species	Scientific name	Conservation objective
A004	Little Grebe	*Tachybaptus ruficollis*	Maintain
A005	Great Crested Grebe	*Podiceps cristatus*	Maintain
A017	Cormorant	*Phalacrocorax carbo*	Maintain
A028	Grey Heron	*Ardea cinereal*	Maintain
A048	Shelduck	*Tadorna tadorna*	Maintain
A050	Wigeon	*Anas Penelope*	Maintain
A052	Teal	*Anas crecca*	Maintain
A054	Pintail	*Anas acuta*	Maintain
A056	Shoveler	*Anas clypeata*	Maintain
A069	Red-breasted Merganser	*Mergus serrator*	Maintain
A130	Oystercatcher	*Haematopus ostralegus*	Maintain
A140	Golden Plover	*Pluvialis apricaria*	Maintain
A141	Grey Plover	*Pluvialis squatarola*	Maintain
A142	Lapwing	*Vanellus vanellus*	Maintain
A149	Dunlin	*Calidris alpina*	Maintain
A156	Black-tailed Godwit	*Limosa limosa*	Maintain
A157	Bar-tailed Godwit	*Limosa lapponica*	Maintain
A160	Curlew	*Numenius arquata*	Maintain
A162	Redshank	*Tringa totanus*	Maintain
A179	Black-headed Gull	*Chroicocephalus ridibundus*	Maintain
A182	Common Gull	*Larus canus*	Maintain
A183	Lesser Black-backed Gull	*Larus fuscus*	Maintain
A193	Common Tern	*Sterna hirundo*	Maintain
A999	Wetland and Waterbirds		Maintain

Restore = Restore favourable conservation condition, Maintain = Restore favourable conservation condition

To acknowledge the importance of Ireland's wetlands to wintering waterbirds, “Wetland and Waterbirds” may be included as a Special Conservation Interest for some SPAs that have been designated for wintering waterbirds and that contain a wetland site of significant importance to one or more of the species of Special Conservation Interest. Thus, a further objective is to maintain or restore the favourable conservation condition of the wetland habitat within the Cork Harbour SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

4.4 Site Surveys

4.4.1 Habitats

Habitat surveys were carried out on the 17 September, 22 September, 25 September, 19 October, 11 November and 13 November 2025. Habitat mapping was carried out in line with the methodology outlined in the Heritage Council Publication, *Best Practice Guidance for Habitat Survey and Mapping* (Heritage Council, 2011). The habitats within the proposed development site were classified using the classification scheme outlined in the Heritage council publication *A Guide to Habitats* in Ireland (Fossitt, 2000) and cross referenced with Annex I Habitats where required. The habitats recorded on site are described below in **Table 4** and their location illustrated in **Figure 4**. No Annex I habitats were recorded within the proposed development site.

Table 4. Habitats within Phase 1 'The Farm' development site boundary

Habitat	Description
Scattered trees and parkland WD5	A large formal garden covers most of the Phase 1 'The Farm' site. It is delineated by existing stonewalls along its northern, eastern and southern boundaries and is separated from the main access road by a mature treeline. Grassland within this area is regularly mowed and species diversity is generally low. It is dominated by common grass and herbaceous species including Red Fescue *Festuca rubra,* Creeping Buttercup *Ranunculus acris,* Daisy *Bellis perenne*, Meadow Grass *Poa annua* and Dandelion *Taraxacum vulgaria.* Trees are generally mature and non-native including Beech *Fagus sylvatica*, Sycamore *Acer pseudoplatanus*, Lime *Tilia sp.,* Turkey Oak *Quercus cerris* and Cherry *Prunus sp*. Eucalyptus *Eucalyptus Globulus* is prominent. Small numbers of native species are also present including Silver Birch *Betula pendula*, Yew *Taxus baccata*, Ash *Fraxinus excelsior* and Hawthorn *Crataegus monogyna*. There is no significant understorey or ground layer. Some of this habitat will be removed as part of the Phase 1 'The Farm' but the majority of the trees will be retained. Mature stands of Japanese Knotweed *Fallopia japonica* were recorded within the garden as well as Winter Heliotrope *Petasites fragrans,* Pheasant bush *Leycesteria formos* Monbretia *Crocosmia pottsii x aurea = C. x crocosmiiflora* and Buddleia *Buddleia davidii* have a scattered distribution. The trees within the garden are predominantly non-native. This area does not have a coherent woodland structure and lacks cover for fauna. However mature trees within the garden may provide roosting sites for bats. In the absence of management the grassland areas within this habitat have become more diverse, with Ragweed *Ambrosia artemisiifolia* Creeping buttercup *Ranunculus repens* some self-seeded chestnut *Castanea* sp. some South hill, Common bent *Agrostis* sp., Red Fescue *Festuca rubra,* Cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus,* and occasional Oak *Quercus* sp and Birch *Betula* sp. saplings. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Treelines WL2	The most prominent treeline is located at the east of the parkland of the main access road. Although dominated by non-native species including Lime *Tilia sp.*, Holm Oak *Quercus ilex* and Sycamore Many of the trees are mature and could be of value for roosting bats however these trees will not be removed. Notwithstanding the preponderance of non-native species, mature treelines provide foraging, nesting and roosting opportunities and form connective elements within the wider landscape
Broadleaved woodland WD1	The largest area of broadleaved woodland in the Phase 1 'The Farm' site is located along the western boundary of the site. A small strip of this woodland is located within the site boundary. It supports a mixture of native and non-native species, however non-native species predominate. Species noted include Beech, Sycamore, and Ash. The understory is poorly developed with Holly *Ilex europeas* and occasional Hazel *Corylus avellana* and Willow *Salix sp.* noted. The ground layer is heavily shaded and includes Soft Shield Fern *Polystichum setiferum*, Hogweed *Heracleum sphondylium*, Primrose *Primula vulgaris*, Woodrush *Luzula spp*., Bluebell *Hyacinthoides non-scripta*, Ivy

Habitat	Description
	Hedera hibernica, Bramble *Rubus fruiticosus* and Hartstongue Fern *Asplenium scolopendrium*. A notable feature is a large eutrophic pond in the southern corner of this woodland. On wetter ground on the periphery of the pond Willow *Salix sp.* is common with, Pendulous Sedge *Carex pendula* and Soft Rush *Juncus effuses* also noted. Cherry Laurel *Prunus laurocerasus* and Winter Heliotrope *Petasites fragrans* are common with a scattered distribution and Wild Clematis *Clematis vitalba* was also recorded. A large stand of mature Japanese Knotweed *Fallopia japonica* was recorded in the northern section of the woodland. Rhododendron *Rhododendron ponticum* was also recorded in proximity to the pond. A review of historical mapping (www.osi.ie) shows that this area of woodland was present on the 6" First Edition maps. Notwithstanding the preponderance of non-native tree species, older woodlands are generally of higher ecological value as mature trees can support bat roosts and a more diverse flora, including woodland indicator species. A small area of this habitat will be affected. The northern section of the formal garden has more closely spaced trees and has some characteristics of broadleaved woodland. There is no significant understorey and the ground layer is heavily shaded with Lord and Ladies *Arum maculatum*, Goosegrass *Galium aparine,* Sun Spurge *Euphorbia helioscopia* Primrose, Tutsan *Hypericum androsaemumand* Woodrush *Luzula sylvatica* immature Elm, Hedge woundwort *Stachys sylvatica*, Soft shield fern *Polystichum setiferum*. Trees within this area include Beech, *Ash Fraxinus excelsior*, Lime *Tilia sp*., Sycamore, *Poplar Populus sp.* and Holm Oak *Quercus ilex*, many of which are mature. A review of historical mapping (www.osi.ie) shows that this area of woodland was extant on the 6" First Edition maps as woodland. Woodland within the study area is dominated by non-native species. Relatively poor habitat structure but of local value in the context of a urbanised landscape. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Stonewalls and other stonework BL1	Stonewalls within the Phase 1 'The Farm' site boundary vary in composition and age but limestone is the predominant building material. Walls form the southern, eastern and northern boundaries of the formal garden and there are other small and similar sections elsewhere. The walls are generally in good condition but lack suitable roosting habitat for bats. The walls are generally devoid of vegetation but older walls support some specialist species including Ivy, Maidenhair Spleenwort *Asplenium trichomanes*, Herb Robert, Harstongue Fern *Asplenium scolopendrum*, Polypody *Polypodium interjectum*, Pennywort *Umbilicus rupestris* and Daisy. Introduced species include Ivy Leaved Toadflax *Cymbalaria muralis* and Mexican Fleabane *Erigeron karvinskianus*. Buddleia *Buddleia davidii* have become established at multiple locations. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites

Habitat	Description
Scrub WS1	A linear band of scrub has developed along the western boundary of the formal garden/parkland area between the garden and treeline along the approach road. It supports a mixture of native and non-native species including Bramble which is dominant and non-native species such Fuchsia *Fuchsia magellanica,* Bay *Laurus Nobilis*, Monbretia *Crocosmia x crocosmiiflora,* Bamboo and Pampas grass. Willow is occasional. Elsewhere within the site there are pockets of scrub which generally occur in a mosaic with other habitats. A small area will also be affected adjacent to the treeline along the western boundary. This habitat provides some potential feeding and nesting habitat. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Dry Meadow and grassy verges GS2	This habitat has developed on an unused field in the northern section of the Phase 1 'The Farm' site. It supports a range of common species including tussocky grass species such as Bramble, Cocksfoot and Yorkshire Fog. Willow saplings were also noted. In the absence of management, it is likely to be further colonised by scrub species. Since the 2021 surveys, scrub encroachment has continued in the absence of development, with dense thickets of Bramble and Buddleia in some areas. Dry meadow and grassy verge loosely corresponds to the annexed habitat, 'lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) (6510)'. The dry meadow and grassy verge habitat within the study area is not a valuable example of this habitat type. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Scrub WS1/Recolonising Bare ground/ Spoil and bare ground ED2	An area within a small courtyard to the east of the formal garden in the Phase 1 'The Farm' site has a mixture of spoil heaps, old wood, pallets etc. There are small patches of scrub with Bramble and Sycamore and some early successional species such as Rosebay Willowherb *Chamaenerion angustifolium* are becoming established. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Scrub WS1/Immature woodland WS2/Dry meadow and grassy verge GS2/Recolonising bare ground ED3	The small strip of this habitat at the east of the Phase 1 'The Farm' site is part of a much larger mosaic of habitats. It is dominated by a complex mosaic of common habitats which typically develop on land which is not actively used. Interspersed with areas of scrub and immature woodland there is isolated patches of Dry meadow and grassy verge with Yorkshire Fog *Holcus lanatus* and Cocksfoot *Dactylis glomerata*. There are dense thickets of scrub which have developed into immature woodland in the absence of management. Immature woodland will continue to develop and encroachment into remaining areas of grassland will continue in the in the absence of active management. Bramble and *Willow Salix sp.* are the dominant scrub/woodland species with Gorse also noted. Sycamore is also becoming established. Other species noted within the habitat include Teasel *Dipsacus fullonum*, Rosebay Willowherb Epilobium angustifolium, Common Figwort *Scrophularia nodosa*, Soft Rush *Juncus effusus*, Dogwood *Cornus sanguinea*, Curled Dock *Rumex crispus, Greater Bird's-Foot Trefoil Lotus pedunculatus* and Spear Thistle *Cirsium vulgare.* Since the 2021 surveys, scrub encroachment has continued

Habitat	Description
	in the absence of development, with dense thickets of Bramble and Buddleia in some areas. Bee Orchid (*Ophrys apifera)* which has widespread but local distribution was previously recorded within this scrub (south of the Phase 1 'The Farm' site). However, this species was not recorded during the 2025 surveys. As scrub/immature woodland will continue to develop in the absence of development this species is unlikely to persist as it requires open conditions. Early successional species and scrub provides local resources for invertebrates, birds and mammals. Dry meadow and grassy verge loosely corresponds to the annexed habitat, 'lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) (6510)'. The dry meadow and grassy verge habitat within the study area is not a valuable example of this habitat type.
Buildings and artificial surfaces BL3	This habitat includes the various built structures around the formal garden and courtyard at the Phase 1 'The Farm' site, including several stone farmhouse-style buildings and a barn. The structures within the courtyard are of potential value as summer roosts for bats, in particular the low stone buildings at the north end of the courtyard. Bat emergence surveys and building surveys were conducted in this area and no evidence of bats was recorded. This habitat also includes a courtyard which is being recolonized by vegetation around its margins, including Fescue Festuca sp., Bramble *Rubus fruticosus,* Rosebay Willowherb *Chamaenerion angustifolium,* and immature Willow *Salix* spp. This habitat type also includes a small section of disused road at the eastern edge of the Phase 1 'The Farm' site. The road is not used and is being recolonized by vegetation, including Fescue *Festuca sp*., Bramble *Rubus fruticosus*, Rosebay Willowherb *Chamaenerion angustifolium*, and immature Willow *Salix spp*. Other species noted include Groundsel *Senecio vulgaris,* Bramble *Rubus fruticosus* and Teasel *Dipsacus fullonum*. These species are common within this area and this habitat is of limited ecological value. These species are common within this area and this habitat is of negligible value. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Improved agricultural grassland GA1	A small strip of the Phase 1 'The Farm' site runs to the west of the formal gardens and buildings through an area of improved agricultural grassland. This includes two large fields that are used for grazing horses and are dominated by low value improved grassland. Grassland in the more southerly field has died back. The northerly field is lightly grazed and supports common grass and herbaceous species including Perennial Rye Grass *Lolium perenne*, Nettle *Urtica diocia* and Broad Leaved Dock *Rumex obtusifolius.* This habitat is common and supports a limited flora. This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites
Horticultural BC2	A disused garden, located just north of the courtyard in the Phase 1 'The Farm' site has become overgrown with grass and herbaceous species including Cocksfoot, Yorkshire Fog and Ribwort Plantain *Plantago lanceolata.*

Habitat	Description
	This is not an Annex I habitat and is not a qualifying habitat for Natura 2000 sites

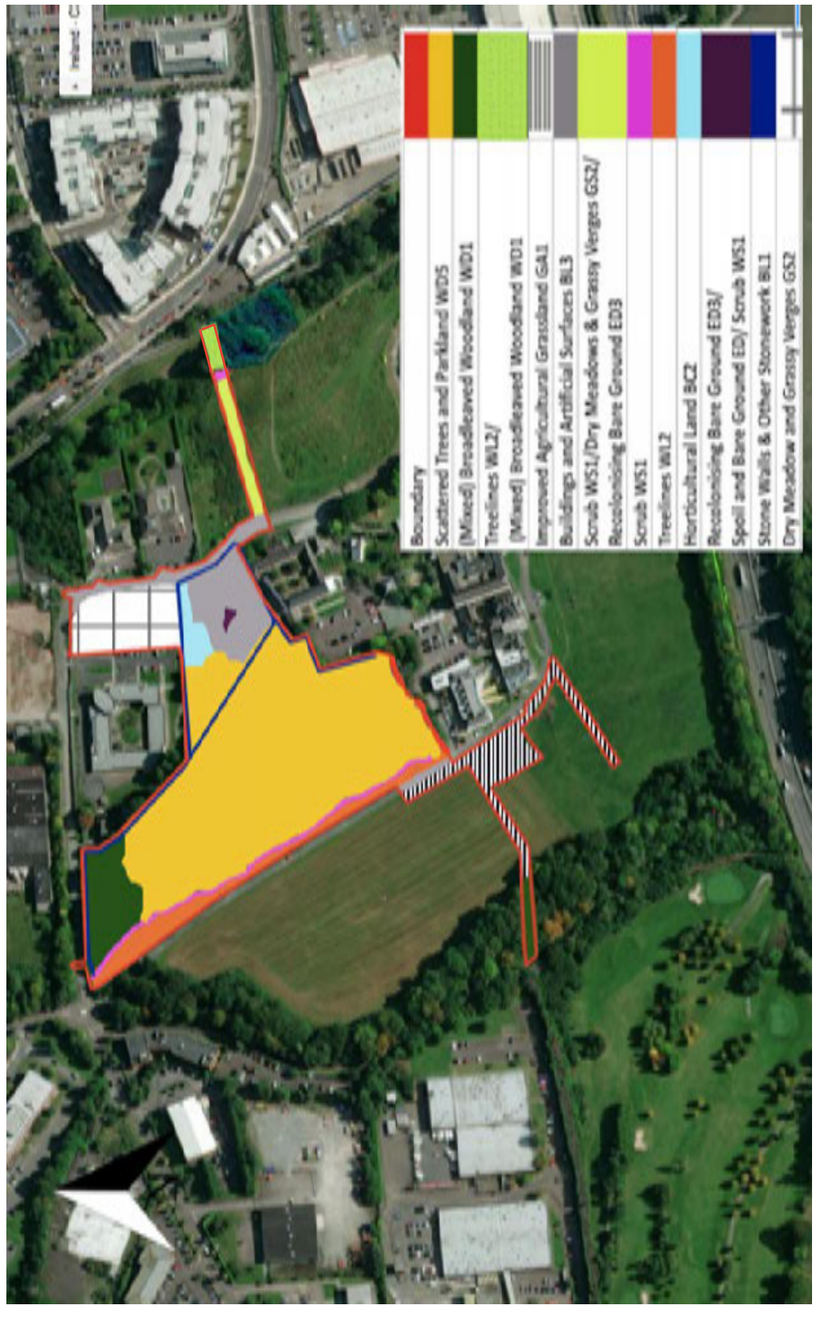


Figure 4. Habitats recorded within proposed development site

4.4.2 Birds

Breeding bird surveys were carried out at the proposed development site on 28 April and 22 June 2021. General bird surveys were carried out on 17 September and 25 September 2025 alongside habitat surveys. Surveys were based on the BTO Common Breeding Bird Survey (BBS) (Gilbert *et al.* 1998 and Bibby *et al.* 2000) which aims to capture a snapshot of breeding bird activity within the survey area. Any birds observed during other survey e.g. habitat surveys/bat surveys were also recorded.

Winter bird surveys were carried out on the 19 October and 11 November. Surveys are ongoing. Previously winter bird surveys were carried out during winter 2020/2021. Winter bird surveys were loosely based on Wetland Bird Survey (WeBS) and also that for the Irish Wetland Bird Survey (I-WeBS), as outlined in Gilbert et al. (1998). In place of the "look see" method, counts were carried out for 1 hour per visit. The focus of winter bird surveys was wintering waterfowl and waders, however all birds were recorded during the site survey.

Certain bird species are listed by BirdWatch Ireland as Birds of Conservation Concern in Ireland (BOCCI). These are bird species suffering declines in population size. BirdWatch Ireland and the Royal Society for the Protection of Birds have identified and classified these species by the rate of decline into Red and Amber lists (Gilbert et al. 2021). Red List bird species are of high conservation concern and the Amber List species are of medium conservation. Green listed species are regularly occurring bird species whose conservation status is currently considered favourable. Bird species listed in Annex I of the Birds Directive (2009/147/EC) are considered a conservation priority. Species recorded within the site are shown in **Table 5**.

Winter Birds

Winter bird surveys were carried out at the proposed development site during winter 2020/2021. An initial assessment determined that the only suitable winter bird foraging/roosting habitat within the larger Bessborough site was located in a large agricultural field overlapping with a small strip of the Phase 1 'The Farm' site. The tree cover and enclosed natures of the in other areas of Phase 1 'The Farm' site means that this area does not provide suitable habitat for foraging/roosting waterfowl/waders. Small numbers of Herring Gull, Lesser Black-backed Gull were recorded overflying the site at a height during several survey days, but no waterfowl, waders or gulls were recorded during winter bird surveys. Personal communication from Bessborough staff indicate that the agricultural fields to the west of the proposed development site were historically used by Curlew *Numenius arquata*, but it has been several years since these birds were recorded onsite.

During the 2025 surveys small numbers of Herring Gull, Lesser Black-backed Gull were recorded overflying the site at a height during several survey days, but no waterfowl, waders or gulls were recorded within the proposed development site. Small flocks of Woodpigeon Columba palumbus, Startling *Sturnus vulgaris* and Rook *Corvus frugilegus* were recorded here on several occasions. During the October 2025 survey, a large flock of Dunlin (c.400 birds) was recorded high up over the Bessborough site.

Breeding Birds

The proposed development site supports relatively high numbers of common breeding bird species. However, the numbers and diversity of threated species such as BOCCI Red List and Amber List species was low. No Annex I species were recorded within the proposed development site.

Table 5. Birds recorded during breeding bird surveys of the proposed development site

Species		2021 Breeding bird survey*	2025 General bird survey	Birds Directive Annex	BOCCI	
				I	Red List	Amber List
Turdus merula	Blackbird	Confirmed	Recorded			
Cyanistes caeruleus	Blue Tit	Probable	Recorded			
Pyrrhula pyrrhula	Bullfinch	Probable				
Fringilla coelebs	Chaffinch	Confirmed	Recorded			
Prunella modularis	Dunnock	Probable	Recorded			
Regulus regulus	Goldcrest	Probable	Recorded			X
Parus major	Great Tit	Probable	Recorded			
Corvus monedula	Jackdaw	Confirmed	Recorded			
Pica pica	Magpie	Overflying	Recorded			
Erithacus rubecula	Robin	Confirmed	Recorded			
Turdus philomelas	Song thrush	Probable	Recorded			
Hirundo rustica	Swallow	Confirmed				X
Columba palumbus	Wood Pigeon	Confirmed	Recorded			
Troglodytes troglodytes	Wren	Probable	Recorded			
Buteo buteo	Buzzard		Overflying			
Corvus corax	Raven		Overflying			
Anthus pratensis	Meadow pipit		Recorded		X	
Fringilla carduelis	Goldfinch		Recorded			

A total of eighteen bird species were recorded within the Phase 1 'The Farm' site boundary. One Red list species i.e. Meadow pipit *Anthus pratensis* was recorded. Two Amber List

species i.e. Goldcrest *Regulus regulus* and Swallow *Hirundo rustica* were recorded during the breeding season. Swallows were recorded foraging within the formal walled garden and nesting within the buildings onsite. Jackdaw was recorded nesting on the farm building which bordered the parkland. The remaining species recorded were common Green List species e.g. Blackbird *Turdus merula*, Bullfinch *Pyrrhula pyrrhula*, Robin *Erithacus rubecula,* Wren *Troglodytes troglodytes* and Blue Tit *Cyanistes caeruleus.* The formal garden (parkland habitat) with scattered trees within the proposed development site provides ideal habitat for common bird species such as Blackbird, Robin and Song Thrush. The trees here provide nesting habitat, while the open short sward grassland provides foraging habitat and ready access to invertebrate species. The maintenance regime within the site means that the habitat is more homogenous, with little ground cover and understorey vegetation. For this reason, it supports a lower diversity of birds than other sites within the Bessborough site.

4.4.3 Invasive Species

Non-native plants are defined as those plants which have been introduced outside of their native range by humans and their activities, either purposefully or accidentally. Invasive non-native species are so-called as they typically display one or more of the following characteristics or features: (1) prolific reproduction through seed dispersal and/or re-growth from plant fragments; (2) rapid growth patterns; and, (3) resistance to standard weed control methods.

Where a non-native species displays invasive qualities and is not managed it can potentially: (1) out compete native vegetation, affecting plant community structure and habitat for wildlife; (2) cause damage to infrastructure including road carriageways, footpaths, walls and foundations; and, (3) have an adverse effect on landscape quality. The site of the proposed development lies within 10km square W77 of Ordnance Survey Ireland's National Grid System. The NBDC lists a number of both aquatic and terrestrial high impact invasive species which have been recorded within grid square W77 (**Table 6**).

Table 6. High impact invasive species recorded in W77

Species group	Species name
Bird	African Sacred Ibis (*Threskiornis aethiopicus*)
Bird	Ring-necked Parakeet (*Psittacula krameri*)
Bird	Ruddy Duck (*Oxyura jamaicensis*)
Flowering plant	Cherry Laurel (*Prunus laurocerasus*)
Flowering plant	*Fallopia japonica x sachalinensis = F. x bohemica*
Flowering plant	Giant Hogweed (*Heracleum mantegazzianum*)
Flowering plant	Giant Knotweed (*Fallopia sachalinensis*)
Flowering plant	Japanese Knotweed (*Fallopia japonica*)
Flowering plant	*Rhododendron ponticum*
Terrestrial mammal	American Mink (*Neovison vison)*
Terrestrial mammal	Brown Rat (*Rattus norvegicus*)
Terrestrial mammal	Ferret (*Mustela putorius subsp. furo*)
Terrestrial mammal	House Mouse (*Mus musculus*)
Terrestrial mammal	Sika Deer (*Cervus nippon*)

Source NBDC database 12/11/25

The control of invasive species in Ireland comes under the Wildlife (Amendment) Act 2000, where it states that

'Any person who— [...] plants or otherwise causes to grow in a wild state in any place in the State any species of flora, or the flowers, roots, seeds or spores of flora, ['refers only to exotic species thereof'][...] otherwise than under and in accordance with a licence granted in that behalf by the Minister shall be guilty of an offence.'

The Birds and Natural Habitats Regulations 2011 (SI 477 of 2011), Section 49(2) prohibits the introduction and dispersal of species listed in the Third Schedule, which includes Japanese Knotweed *Fallopia japonica*, as follows: *"any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow [….] shall be guilty of an offence."*

The Third Schedule species, Japanese Knotweed and Himalayan Knotweed *Persicaria wallichii* were recorded at several locations within the proposed development site. The location of these species within the proposed development site boundary is shown in **Figure 5**.

Figure 5. Third schedule species recorded within proposed development site

Five other invasive species Cherry Laurel *Prunus laurocerasus* Buddleia *Buddleja davidii*, Wild Clematis *Clematis vitalba,* Pheasant bush *Leycesteria Formosa* and Winter Heliotrope *Arctostaphylos luciana* were recorded with a scattered distribution throughout the site.

Cherry Laurel (*Prunus laurocerasus*) is listed by the National Biodiversity Data Centre as a high risk invasive species. These species are not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, their presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011). Cherry laurel occurs within the walled garden in Phase 1 'The Farm' site. The species was recorded on both sides of the road directly across from each other. Cherry Laurel is a dense thicket forming invasive ever-green shrub of gardens, parks and woodlands from South West Asia. The leaves are thick and laurel-like and are poisonous with cyanide. Its rapid growth and the way it casts an all–year–round dense shade means that it shades out plants from the woodland floor, and generally out–competes less vigorous shrubs and young trees. Like *Rhododendron ponticum* with which it often grows, if unmanaged, it will form almost impenetrable shrubberies or understories in woodland and effectively kill off all other vegetation except the mature trees.

Buddleia, Pheasant Bush and Wild Clematis are listed as a medium impact listed species by the NBDC. These species are not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, their presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011). However, the NBDC notes that under the right ecological conditions these species may have an impact on the conservation goals of a European site or impact on a water body achieving good/high ecological status under the Water Framework Directive (Directive 2000/60/EC). Buddleia and Wild Clematis is also included in the NRA *Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads* (NRA 2010) as these species have been shown to have an adverse impact on landscape quality, native biodiversity or infrastructure; and is likely to be encountered during road schemes.

Winter Heliotrope is classified as a low risk invasive species by the NBDC. This species is not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, its presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011). Winter Heliotrope is included in the NRA *Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads* (NRA, 2010) as these species have been shown to have an adverse impact on landscape quality, native biodiversity or infrastructure; and are likely to be encountered during road schemes.

4.5 Water Quality data

4.5.1 Regional Hydrology and Local Water Quality

On a regional scale, the proposed development site is located within the Hydrometric Area No.19 which is the EPA classification for the catchments. The proposed site is within Glasheen (Corkcity)_SC_010 sub-catchment, which is within the River Lee, Cork Harbour and Youghal Bay catchment under Water Framework Directive (WFD). Togher and Douglas are included in this hydrometric area.

This Hydrometric Area falls within the Southwestern River Basin District which is the Water Framework Directive (WFD) designated catchment for the local area that also includes Togher and Douglas. The largest urban centre in hydrometric area 19 is Cork City. Other suburbs areas within the hydrometric area includes Blarney, Midleton and Macroom**.** Hydrometric Area 19 is 1,732km2 in area with ground elevations ranging from sea level to over 500mOD.

The European Communities Directive 2000/60/EC, establishing a framework for community action in the field of water policy, commonly known as the Water Framework Directive (WFD). The WFD is an important piece of environmental legislation which aims to improve the water quality. The WFD classification scheme for water quality includes five status classes: high, good, moderate, poor, and bad.

'High status' is defined as the biological, chemical and morphological conditions associated with no or very low human pressure. This is also called the 'reference condition' as it is the best status achievable - the benchmark. Assessment of quality is based on the extent of deviation from these reference conditions. 'Good status' means a 'slight' deviation from this condition, 'moderate status' means 'moderate' deviation, and so on.

Lough Mahon water body in the vicinity of the site is categorised on the EPA Water Quality Map as a transitional waterbody. The WFD monitoring of Lough Mahon for 2019-2014 indicates that it had a 'moderate' status. The Lough Mahon transitional water body and Douglas River estuaries are identified as being 'at risk' of not meeting the WFD objectives.

Local Hydrology & Water Quality

The proposed development site does not contain any mapped watercourse. The nearest watercourse to the proposed development site is River Douglas which is located approximately 300m to the south of the site. River Douglas estuary flows in an easterly direction and discharges to Lough Mahon through the south of the site.

Currently the lands surrounding the development site are classified as urban in use and is underlain predominantly by made ground which means that the drainage system of the area has been heavily modified and likely discharges via soakaways. Most of the site appears to be well drained. The main hydrological features associated with the site are presented in the **Figure 6**.

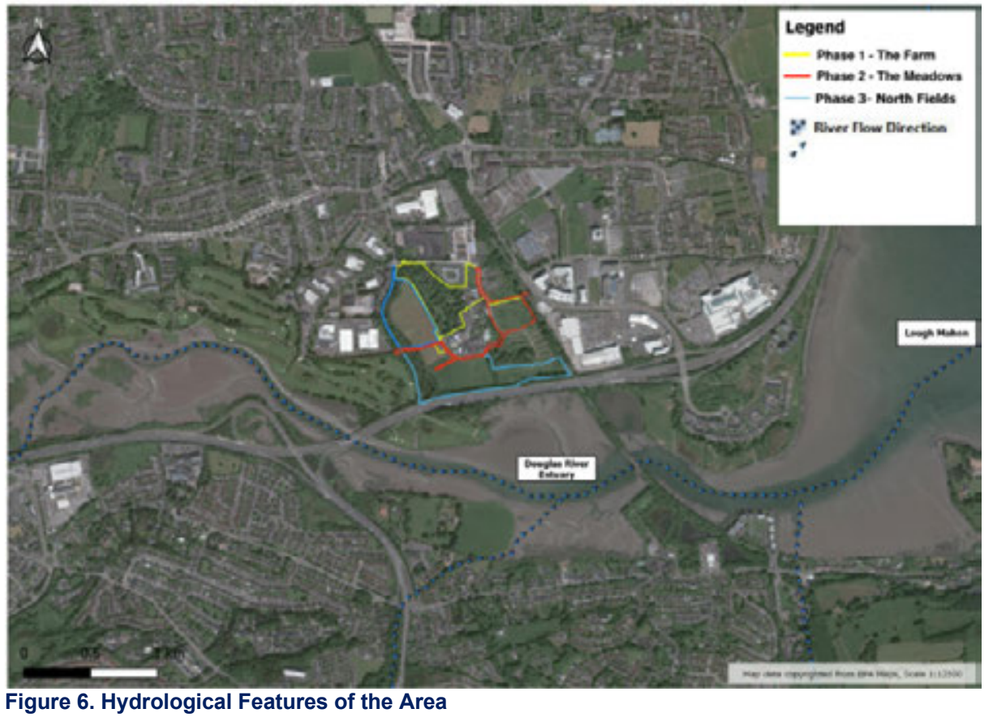


Figure 6. Hydrological Features of the Area

Flood Risk

The National Flood Hazard Mapping website operated by the OPW (www.floodinfo.ie) has collated records of historic flooding events throughout Ireland. According to the National Flood Hazard Mapping there was no record of historic flooding at the site of the proposed development. The nearest floods to have occurred to the proposed development site occurred in Douglas in 2002 and 2012 and in Rochestown in 2014.

The development site is not identified as an area susceptible to flooding and no history of flooding at the site by the Cork City Development Plan and CFRAM mapping. The CFRAMS Map and Cork City Council Flood Map both indicate that the site lies outside of Flood Zones A and B and can therefore be considered to be located within Flood Zone C.

A site-specific Flood Risk Assessment has been carried out by J B Barry and Partners for the proposed development site and this FRA confirms that the site is located in Flood Zone C, the lowest flood risk designation.

Therefore, the proposed development is deemed 'Appropriate' in accordance with the Office of Public Work (OPW) Flood Risk Management Guidelines.

Bedrock Aquifer

The Geological Survey of Ireland has classified the aquifer based on the groundwater resources and hydrological characteristic (such as the area extent, well yield, specific capacity

and groundwater throughput). There are three main types of aquifers namely, Regionally Important Aquifer, Locally Important Aquifer and Poor Aquifer.

According to the GSI Mapping, the proposed development is underlain by 'Regionally Important Aquifer' which is Karstified bedrock dominated by diffuse flow (Rkd). In this type of aquifer groundwater flows mainly diffusely through solutional-enlarged fissures. The Bedrock Aquifer map for the proposed site is presented below.

Groundwater Vulnerability

According to GSI, the Groundwater Vulnerability represents the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated by human activities. The vulnerability of the groundwater depends on the time travel of infiltrating water, the quantity of contaminants that reach the groundwater and the contaminant attenuation capacity of the geological materials through which the water and contaminants infiltrate. The final vulnerability rating of an area is determined by the permeability and thickness of the subsoils underlying the groundwater, and the type of recharge sources (diffuse or point source). Therefore, areas where the infiltrating water and contaminants move faster from land to groundwater with high permeability are more vulnerable.

According to the GSI the vulnerability classification for the proposed development site is 'High (H)' likely based on the presence of high permeability sand and gravel subsoils. There were no karst features identified adjacent to the site. The groundwater vulnerability map for the proposed development site is presented below in **Figure 7**.

Figure 7. Groundwater vulnerability

4.5.2 Urban Wastewater Treatment Directive

The Wastewater Discharge (Authorisation) Regulations 2007 (S.I. 684 of 2007) gives effect to the requirements of the Urban Wastewater Treatment Directive (Directive 91/271/EEC) and the Water Framework Directive (2000/60/EC) in Ireland. The Urban Wastewater Treatment Directive (UWWTD) lays down the requirements for the collection, treatment and discharge of urban wastewater and specifies the quality standards which must be met — based on agglomeration size — before treated wastewater is released into the environment.

The priority objective for this river basin planning cycle is to secure compliance with the Urban Wastewater Treatment Directive and to contribute to the improvement and protection of waters in keeping with the water-quality objectives established by this Plan. Achieving this objective entails addressing waste-water discharges and overflows where protected areas (i.e. designated bathing waters, shellfish waters and Freshwater Pearl-Mussel sites) or high-status waters are at risk from urban waste-water pressures.

As part of the proposed development, wastewater discharging from the proposed development will be conveyed to the Cork City WWTP (D0033-01) for treatment prior to discharging into the Cork Harbour at Lough Mahon. Cork Harbour is a Nutrient Sensitive Area listed in accordance with the Urban Wastewater Treatment (UWWT) Directive 91/271/EEC on Urban Wastewater Treatment Regulations 2001 (S.I. 48 of 2010).

4.6 Potential Impact of Proposed Development on Cork Harbour SPA and Great Island Channel SAC

4.6.1 Impacts from loss of habitat

Any habitat loss of Natura 2000 sites or deterioration in habitat quality would reduce the extent of habitat available for QI/SCI species. This could potentially decrease the viability of existing QI habitats and increase the pressure on existing habitat and may result in further deterioration.

The proposed development is not located within a designated site and the habitats recorded within the site do not correspond to habitats listed on Annex I of the Habitats Directive or to qualifying habitats for the Great Island Channel SAC. There are no suitable foraging habitats for SCI birds within Phase 1 'The Farm'. Surveys throughout the winter of 2025 (and 2020/2021) did not to record any SCI birds, waders or waterfowl within the Bessborough site. The habitats within the proposed development site may be utilised on occasion by common birds for feeding, however the areas to be affected are not critical feeding resources for these species in the context of the wider landscape.

No foraging/roosting habitat of value for species listed as SCIs for the Cork Harbour SPA will be affected. No breeding habitat for species listed as SCIs for the Cork Harbour SPA will be affected. Therefore, the proposed development will not result in any adverse effects on European sites due to habitat loss.

4.6.2 Impacts from surface water runoff during construction and operation

Surface water run-off during the construction and operational phase could potentially be contaminated with silt, hydrocarbons or other chemicals. This has the potential to impact on habitats and water quality within Cork Harbour SPA, which could impact on qualifying species

which use these habitats, (A056 Shoveler *Anas clypeata*, A149 Dunlin Calidris alpine, A140 Golden Plover *Pluvialis apricaria*, A050 Wigeon *Anas penelope*, A028 Grey Heron *Ardea cinerea*, A069 Red- breasted merganser *Mergus serrator*, A142 Lapwing *Vanellus vanellus*, A130 Oystercatcher *Haematopus ostralegus*, A141 Grey plover *Pluvialis squatarola*, A052 Teal *Anas crecca*, A054 Pintail *Anas acuta*, A157 Bar-tailed Godwit *Limosa lapponica*, A162 Redshank *Tringa tetanus*, A183 Lesser Black-backed gull *Larus fuscus*, A179 Black-headed Gull *Chroicocephalus ridibundus*, A004 Little Grebe *Tachybaptus ruficollis*, A160 Curlew Numenius arquata, A182 Common Gull *Larus canus*, A048 Shelduck *Tadorna tadorna*, A017 Cormorant *Phalacrocorax carbo*, A193 Common Tern *Sterna hirundo*, A005 Great crested grebe *Podiceps cristatus* and A156 and Black-tailed Godwit *Limosa limosa*).

Therefore, the conservation objectives of the Cork Harbour SPA may be impacted by surface water runoff during construction and operation. Impacts from surface water runoff during the construction and operation have been screened in for further assessment.

Given the distance from the proposed development site, the dilution capacity available within Cork Harbour and the robust nature of estuarine habitats, no significant impact on water quality within Great Island Channel is predicted to occur during construction or operation. Therefore, the surface water discharges from the proposed development during construction or operation will have no impact on the conservation objectives for the Great Island Channel SAC.

4.6.3 Impacts from wastewater discharge during operation

The proposed development could potentially result in an increase in nutrients discharging to Cork Harbour via the Lough Mahon discharge for the Cork City Wastewater Treatment Plant (WWTP). Increased nutrients can potentially impact on estuarine habitats by changing baseline ecological conditions and increasing algal growth, which in turn could impact on feeding success for birds listed as qualifying interests for the Cork Harbour SPA.

Wastewater from the proposed development will be conveyed for treatment to Cork City (Carrigrenan) Wastewater Treatment Plant (WWTP). Treated effluent from the proposed development will ultimately discharge into the waters of the Lough Mahon which sections overlap with that of the Cork Harbour SPA.

The Cork City agglomeration is served by a wastewater treatment plant with a Plant Capacity Population Equivalent (P.E.) of 413,200. The agglomeration consists of one primary discharge point which discharges to the Lough Mahon. The WWTP obtained a discharge licence (Reg: D0033-01) from the Environmental Protection Agency and has assigned emission limit values (ELVs) for a range of parameters to ensure a high degree of protection to the Lough Mahon and surrounding waters.

Treated effluent from the proposed development will discharge from the Cork City WWTP via the main treated effluent line. The discharge licence assigns ELVs for biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS), Total Nitrogen (Total N), Total Phosphorous (Total P) and pH. The ELVs are set based on the full design capacity (P.E 413,200) and are aimed at providing a high degree of protection to the receiving water body and to ensure the receiving waterbody is capable of accommodating the proposed discharge without causing or exacerbating a breach in the relevant standards.

The 2023 Annual Environmental Report for Cork City WWTP (D0033-01) was reviewed. **Table 8** provides a summary of the current operating conditions for the WWTP from the main effluent discharge obtained from the most recent Environmental Protection Agency Annual Environment Report 2023 (EPA 2024).

Table 8. Effluent Monitoring

Effluent Monitoring Summary	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	Total P (mg/l)	Total N (mg/l)*	pH
WWDL ELV (Schedule A)	25.00	125	35.0	2.5	10	9
ELV with Condition 2 Interpretation included	50.00	250	87.5	3	12	9
No. of Sample results	261	261	261	26	26	261
Number of exceedances	N/A	N/A	3	N/A	25	N/A
Number of sample results above ELV with condition 2 interpretation	N/A	N/A	N/A	N/A	21	N/A
Annual Mean (parameters where a mean ELV applies are shaded)	6.62	51	11	0.541	17	7.72
Overall Compliance (Pass/Fail)	Pass	Pass	Pass	Pass	Fail	Pass

The AER notes that the final effluent from the Primary Discharge Point was non-compliant with the Emission Limit Values in 2023. The non-compliances with the ELVs were in relation to Total N (mg/l). In relation to ongoing monitoring of water quality, the 2023 AER concluded the following:

- *The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence.*
- *The ambient monitoring results do not meet the required EQS at the downstream monitoring locations. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009*
- *The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.*

Based on the planned occupancy, the P.E. for the proposed development has been conservatively calculated at 378. This would increase the current WWTP load from 298,001 (based on EPA Envision mapping 2024) to 298,379 P.E. which is well within the 413,200 P.E. design capacity. Therefore, with the addition of emissions from the proposed development to the WWTP it would increase its operational load to 72.2% of its design capacity with a residual capacity of 27.8%. Thus, given the limited scale of the proposed development and the ability of the WWTP to cater for the additional loading, no significant impact will occur.

The addition of the effluent discharge from the proposed development to the Cork City WWTP is well within its design capacity and will not comprise the operational capability of the WWTP to treat effluent to comply with emission limit values. Therefore, the impacts from the proposed development will be negligible given the current operating conditions at the WWTP. Likewise, minor increases in nutrient levels potentially discharged by the WWTP will not have a significant impact on feeding conditions for birds listed as qualifying interests or the conservation objectives of Cork Harbour SPA. Similarly, there will be no impact on estuarine habitats within the Great Island Channel SAC.

4.6.4 Impacts from disturbance

Potentially increased noise and disturbance associated with the site works could cause disturbance/displacement of fauna. If of sufficient severity, there could be impacts on reproductive success. Disturbance can cause sensitive species, such as birds, to deviate from their normal, preferred behaviour, resulting in stress, increased energy expenditure and, in some cases, species mortality.

The potential effects and impacts of disturbance have been widely recognised in wildlife conservation legislation, as has the need to develop conservation measures for birds whilst taking human activities into account. Article 4.4 of the Bird's Directive (79/409/EEC) requires member states to "*take appropriate steps to avoid… any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article*". This specifically relates to conservation measures concerning Annex I species.

The wintering birds listed as qualifying interests for the Cork Harbour SPA are strongly associated with estuarine shoreline areas or wetlands - habitat types absent from the proposed development site. Surveys during the winter of 2025 and 2020/2021 indicated that there are no foraging/roosting sites for SCI birds within Phase 1 'The Farm' or within the Bessborough masterplan site.

It is noted that the proposed development site is located adjacent to existing urban developments with the busy National Route N40 located between the proposed development site and the Cork Harbour SPA. This area is subject to noise disturbance and light pollution, from existing retail/residential developments as well as an existing road network. During the construction stage, there will be short-term increases in disturbance within the proposed development site. However, construction noise and vibration are unlikely to propagate beyond the construction site boundary and no significant changes in noise levels within the Cork Harbour SPA will occur.

During operation, there is likely to be a slight increase in traffic and human activity within Phase 1 'The Farm'. However, given the distance of the SPA from the proposed development site

and the existing noise environment, no significant changes in noise and disturbance are predicted within the Cork Harbour SPA.

No valuable habitat for SCI species was recorded within or adjacent to the proposed development site. The construction and operational phase of the project will increase noise and disturbance. However, in the context of the existing noise environment and given the lack of valuable habitat for SCI species on or near the proposed development site, no impact on birds listed as qualifying interests for the Cork Harbour SPA will occur. It is noted that there are no qualifying species for the Great Island Channel SAC and therefore there is no potential for disturbance effects.

4.6.5 Impacts from Collision Risk

Buildings are an obstacle to bird flight and collisions with buildings, especially their glass windows, are thought to be a major anthropogenic global threat to birds (Klem 1990, 2009, Machtans *et al.* 2013). Species which appear to be most vulnerable to collision are passerine species (Loss *et al.* 2013) and birds of prey (Thaxter *et al.* 2017). Birds which are less manoeuvrable, for example grebes, geese or swans, which are at a greater risk of collision with turbines or powerlines for example, are less likely to fly close to manmade structures due to their lack of manoeuvrability. Therefore, these species rarely collide with buildings.

While building height appears to be a significant factor in collision risk, even on lower height buildings (i.e. below 11 storeys) bird mortality rates have been found to increase with the percentage and surface area of buildings covered by glass (Collins and Horn 2008, Hager *et al.* 2008, 2013, Klem *et al*. 2009, Borden *et al.* 2010) and the amount of light emitted from windows (Evans Ogden 2002, Zink and Eckles 2010). There are no large areas of glass within the building which could create a collision risk. While SCI birds for the Cork Harbour SPA will occasionally overfly inland habitats, the majority of commuting flights for Cormorants, ducks, waders and gulls are likely to take place within the estuarine habitats (i.e., the open water or mudflats) and not over the built-up environment in the vicinity of the proposed development site. While small numbers of gulls were occasionally recorded overflying the proposed development site at a height, no flocks of wading birds, waterfowl or gulls were recorded overflying the site during winter surveys. The proposed development site is approximately 330m from Cork Harbour SPA. Surveys indicate that there are no roosting or foraging sites within or in the vicinity of the proposed development site which could attract birds into the site and potentially put them on a collision path with the proposed buildings.

In the case of the proposed development site, given the lack of foraging/or roosting sites within or adjacent, the absence of large areas of glass, the proposed lighting design and its location within an existing urban setting means that no significant risk of collision for SCI species has been identified. Therefore, the collision risk posed by the proposed development is not significant and it will not impact on conservation objectives for the Cork Harbour SPA.

4.6.6 Impacts from spread of invasive species

The third schedule invasive species Japanese Knotweed and Himalayan Knotweed were recorded within the proposed development site. There is potential during the construction phase for invasive species to be spread within the boundary of the proposed development, thus impacting negatively on adjoining habitats. Although unlikely given the lack of watercourses at the proposed development site and the estuarine habitats within the Cork Harbour SPA, as a precautionary measures, potential impacts of the spread of invasive species on Cork Harbour SPA will be screened in for further assessment.

Given the distance from the Great Island Channel SAC, the distance via a hydrological pathway or other connection and the robust nature of estuarine habitats within the SAC, no impact from the spread of invasive species is predicted to occur.

4.6.7 In-combination Impacts

In-combination (cumulative) impacts refer to a series of individual impacts that may, in combination, produce a significant effect. The underlying intention of this in- combination provision is to take account of in-combination impacts from existing or proposed plans and projects and these will often only occur over time. It is proposed that a temporary off- site contractors carpark offsite will be utililsed during the construction period. This site is not included in this application; however, it has been included for the purposes of cumulative assessment.

The main threats to the conservation objectives of the Great Island Channel SAC qualifying habitats are climate change, intensive cattle grazing, intensive sheep grazing, paths, tracks, cycling tracks, disposal of household / recreational facility waste, disposal of industrial waste reclamation of land, polderisation, modification of hydrographic functioning, erosion and invasive non-native species. In the absence of any significant potential impacts on the qualifying interests for Great Island Channel SAC no potential in-combination impacts from the proposed development have been identified.

As Cork Harbour is adjacent to a major urban centre and a major industrial centre, water quality is variable, with the estuary of the River Lee and parts of the Inner Harbour being somewhat eutrophic. However, the polluted conditions may not be having significant impacts on the bird populations. The Natura 2000 Standard Data Form for Cork Harbour SPA notes that there are no serious imminent threats to the wintering birds even though the intertidal areas receive polluted water. Oil pollution from shipping in Cork Harbour is a general threat. Aquaculture occurs though it is not known if this has significant impacts on the birds. Recreational activities are high in some areas, including jet skiing which causes disturbance to roosting birds. Extensive areas of estuarine habitat have been reclaimed since about the 1950s for industrial, port-related and road projects, and further reclamation remains a threat.

The area surrounding the proposed development site is largely retail/residential developments. This in combination with the proposed development could potentially lead to in-combination impacts within the Cork Harbour SPA. Potential in-combination impacts from surface water discharges during construction on Cork Harbour SPA have been screened in for further assessment.

4.7 Screening of Relevant Natura 2000 Sites and Qualifying Interests/Special Conservation Interests

4.7.1 AA Screening Overview

Potential impacts have been identified for the Cork Harbour SPA. Screening conclusions with regards to the qualifying species and habitats for relevant Natura 2000 sites are provided in

Table 9. No significant effects on the conservation objectives of other Natura 2000 sites will occur. Sites/QIs/SCIs that are screened in for further assessment are highlighted in bold.

Table 9. Screening of relevant Natura 2000 sites

Natura 2000 Site	Qualifying Interest	Potential Impacts	Screened In/Out
Great Island Channel SAC (Site code 001058)	1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	Given the absence of significant pathways (See Section 4.6.1-4.6.7), no significant impacts on qualifying habitats or the conservation objectives of this SAC are predicted to occur.	Screened out
Cork Harbour SPA (Site code 004030)	A056 Shoveler *Anas clypeata* A149 Dunlin *Calidris alpina* A140 Golden Plover *Pluvialis apricaria* A050 Wigeon *Anas penelope* A028 Grey Heron *Ardea cinerea* A069 Red- breasted merganser *Mergus serrator* A142 Lapwing *Vanellus vanellus* A130 Oystercatcher *Haematopus ostralegus* A141 Grey plover *Pluvialis squatarola* A052 Teal *Anas crecca* A05 Pintail *Anas acuta* A157 Bar-tailed Godwit *Limosa lapponica* A162 Redshank *Tringa totanus* A183 Lesser Black-backed gull *Larus fuscus*	Given the proposed surface water discharges to the Douglas Estuary, which is located within the Cork Harbour SPA, potential effects could occur due to impacts on water quality during construction and operation and the spread of invasive species during the construction phase.	Screened in

Natura 2000 Site	Qualifying Interest	Screened In/Out
	A179 Black-headed Gull *Chroicocephalus ridibundus*	Potential Impacts
	A004 Little Grebe *Tachybaptus ruficollis*	
	A160 Curlew *Numenius arquata*	
	A182 Common Gull *Larus canus*	
	A048 Shelduck *Tadorna tadorna*	
	A017 Cormorant *Phalacrocorax carbo*	
	A193 Common Tern *Sterna hirundo*	
	A005 Great crested grebe *Podiceps cristatus*	
	A156 Black-tailed Godwit *Limosa limosa*	
	A999 Wetlands and waterbirds	

4.7.2 Screening conclusion

The aims of this screening section of this report were as follows:

- Determine whether the proposed development, alone or in combination with other projects, is likely to have significant effects on Natura 2000 sites in view of their conservation objectives.
- Provide information on and assess the potential for the proposed development to significantly impact on Natura 2000 Sites (also known as European sites).
- Determine whether the proposed development is directly connected with, or necessary to the conservation management of any Natura 2000 sites.

It has been objectively concluded that:

- The proposed development is not directly connected with, or necessary to the conservation management of any Natura 2000 sites.
- On the basis of objective information, the possibility of significant effects from the proposed development on European sites cannot be ruled out. There is potential for the proposed development to significantly impact the Cork Harbour SPA via impacts on water quality during construction and operation and the spread of invasive species during the construction phase.
- The proposed development, alone or in combination with other projects could potentially impact on SCI species within the Cork Harbour SPA.

On the basis of objective information and in view of best scientific knowledge, the possibility of significant effects from the proposed project on a European site, Cork Harbour SPA, cannot be ruled out and therefore an Appropriate Assessment is required.

The NIS has been prepared to inform and assist the planning authority, to assess, in view of best scientific knowledge, if the proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

5. Natura Impact Statement (NIS)

5.1 Introduction

Sections 3 and 4 of this report are relevant to informing the Natura Impact Statement (NIS) in that the proposed development and receiving environment is described in sufficient detail. In **Section 4**, the Zone of Influence (ZoI) of the proposed development and the European sites within the ZoI were identified. Likely significant effects on the Cork Harbour were identified in **Section 4**. This NIS now examines and analyses, in light of the best scientific knowledge, with respect to this Natura 2000 site within the zone of influence of the proposed development, the potential effect sources and pathways, how these could impact on the SCI species and whether the predicted effects would adversely affect the integrity of the Cork Harbour SPA.

Mitigation measures are set out within the NIS and ensure that any effects on the conservation objectives of the Cork Harbour SPA will be avoided during the proposed development such that there will be no risk of adverse effects on the Cork Harbour SPA.

5.2 Status of Special Conservation Interests (SCIs) for Cork Harbour SPA

Cork Harbour SPA is a large, sheltered bay system that is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. It is amongst the top ten sites in the country. Owing to the sheltered conditions, the intertidal flats are often muddy in character but described principally as 'mixed sediment to sandy mud with polychaetes and oligochaetes'. These muds support a range of macro-invertebrates, notably *Macoma balthica, Scrobicularia plana, Peringia (Hydrobia) ulvae, Nepthys hombergi, Nereis diversicolor* and *Corophium volutator*, all of which provide a food source for many wintering waterbird species. Salt marshes are scattered through the site and these provide high tide roosts for waterbirds (NPWS 2014b).

- The specific conservation objectives for species listed as conservation interests for the Cork Harbour SPA (**Table 10**) are to maintain a favourable conservation condition of the non-breeding/breeding waterbirds and to maintain the favourable conservation condition of the wetland habitat at Cork Harbour SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

These species are listed as SCIs for the Cork Harbour SPA for the following reasons:

During winter the site regularly supports 1% or more of the all-Ireland population of each of the following species: Cormorant, Curlew, Bar-tailed Godwit, Wigeon, Teal, Little Grebe, Black-headed Gull, Common Gull, Lesser Black-backed Gullm Lapwing, Oystercatcher , Shelduck, Grey Heron, Great Crested Grebe, Pintail, Shoveler, Red-breasted Merganser, Grey Plover and Dunlin.

During winter the site regularly supports 1% or more of the biogeographical population of each of the following species: Black-tailed Godwit, Redshank and Golden Plover.

The site is selected for the breeding Annex I species Common Tern. In 1995, 102 pairs were breeding at this site. This exceeds the All-Ireland 1% threshold for this species.

The wetland habitats contained within Cork Harbour SPA are identified of conservation importance for non-breeding (wintering) migratory waterbirds. Therefore, the wetland habitats are considered to be an additional Special Conservation Interest.

Table 10. SCI species for which a potential impact has been identified – specific targets

Species/Habitats	Attribute	Measure	Target
Little Grebe Great Crested Grebe Cormorant Grey Heron Shelduck	Population trend	Percentage change	Long term population trend stable or increasing
Wigeon Teal Pintail Shoveler Red-breasted Merganser Oystercatcher Golden Plover Grey Plover Lapwing Dunlin Black-tailed Godwit Bar-tailed Godwit Curlew Redshank Black-headed Gull Common Gull Lesser Black-backed Gull	Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by each species, other than that occurring from natural patterns of variation
Common Tern	Breeding population abundance: apparently occupied	Number	No significant decline

Species/Habitats	Attribute	Measure	Target
	nests (AONs)		
	Productivity rate: fledged young per breeding pair	Mean number	No significant decline
	Distribution: breeding colonies	Number; location; area (hectares)	No significant decline
	Prey biomass available	Kilogrammes	No significant decline
	Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
	Disturbance at the breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding common tern population
Wetlands	Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,587 hectares, other than that occurring from natural patterns of variation

5.3 Conservation Status of SCI Species

The Conservation Objectives Supporting document for Cork Harbour SPA (NPWS, 2014c) provides a review of the site conservation condition and population trends for Cork Harbour SPA with regard to species' all-Ireland and international trends. All-Ireland trends follow I-WeBS data 1994-2015 (Birdwatch Ireland 2022) while International trends follow Wetlands International (2012).

Table 11. Conservation Status of SCI species within Cork Harbour

Special Conservation Interests	BoCCI Category [1]	Site conservation condition[2]	Current All-Ireland Trend[3]	Current International Trend[4]
Shelduck	Amber	Unfavourable	Declining	Increasing
Wigeon	Amber	Unfavourable	Declining	Stable
Teal	Amber	Intermediate (Unfavourable)	Stable	Increasing
Pintail	Amber	Highly unfavourable	Stable	Increasing
Shoveler	Red	Highly unfavourable	Stable	Increasing
Red-breasted Merganser	Amber	Highly unfavourable	Stable	n/c
Little Grebe	Green	Favourable	Increasing	Increasing
Great Crested Grebe	Amber	Unfavourable	Stable	Declining?
Cormorant	Amber	Highly unfavourable	Stable	Increasing
Grey Heron	Green	Intermediate	Stable	Increasing
Oystercatcher	Red	Intermediate (unfavourable)	Stable	Declining
Golden Plover	Red	Favourable	Declining	Declining
Grey Plover	Red	Highly unfavourable	Declining	Declining?
Lapwing	Red	Highly unfavourable	Declining	Stable
Dunlin	Red	Unfavourable	Declining	Stable
Black-tailed Godwit	Red	Favourable	Increasing	Increasing
Bar-tailed Godwit	Red	Favourable	Stable	Increasing
Curlew	Red	Unfavourable	Declining	Declining
Redshank	Red	Unfavourable	Stable	Stable/increasing
Black-headed Gull	Amber	Highly unfavourable	n/c	n/c
Common Gull	Amber	Highly unfavourable	n/c	n/c
Lesser Black-backed Gull	Amber	Highly unfavourable	n/c	n/c

1. Gilbert et al. 2021. 2. NPWS, 2014c, 3. Birdwatch Ireland I-WeBS 1994-2015, 4. Wetlands International (2012)

5.4 Assessment of Potential Impacts

All potential impacts would relate to direct and indirect impacts to relevant habitats and fauna of the Cork Harbour SPA. The assessment of impacts is based on the EC (2018) Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC, professional judgement and criteria or standards where available.

The potential impacts associated with the development are discussed in the following section with respect to their likelihood to have had or to have significant impacts on Natura 2000 sites. As part of the assessment direct, indirect and cumulative impacts were considered. Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development. Indirect and secondary impacts do not have a straight-line route between cause and effect, and it is potentially more challenging to ensure that all the possible indirect impacts of the project/plan – in combination with other plans and projects have been established.

As part of the assessment the potential for impacts associated with the development were reviewed as outlined below:

- Impacts from surface water runoff during construction
- Impacts from surface water runoff during operation
- Impacts from the spread of invasive species during construction
- In-combination impacts

5.4.1 Impacts on surface water quality during construction

Potential impacts on aquatic habitats which can arise from surface water emissions associated with the construction phase of the proposed development include increased silt levels in surface water run-off and inadvertent spillages of hydrocarbons from fuel and hydraulic fluid.

High levels of silt can impact on fish species. If of sufficient severity, adult fish could theoretically be affected by increased silt levels as gills may become damaged by exposure to elevated suspended solids levels. If of sufficient severity, aquatic invertebrates may be smothered by excessive deposits of silt from suspended solids. In areas of stony substrate, silt deposits may result in a change in the macro-invertebrate species composition, favouring less diverse assemblages and impacting on sensitive species. Cement can also affect fish, plant life and macroinvertebrates by altering pH levels of the water. Aquatic plant communities may also be affected by increased siltation. Submerged plants may be stunted and photosynthesis may be reduced. Such run-off if severe could potentially impact on water quality and thus could impact on aquatic species.

Inadvertent spillages of hydrocarbon and/or other chemical substances could introduce toxic chemicals into the aquatic environment via direct means, surface water run-off or groundwater contamination. Some hydrocarbons exhibit an affinity for sediments and thus become entrapped in deposits from which they are only released by vigorous erosion or turbulence. Oil products may contain various highly toxic substances, such as benzene, toluene, naphthenic acids and xylene which are to some extent soluble in water; these penetrate into the fish and can have a direct toxic effect. The lighter oil fractions (including kerosene, petrol, benzene, toluene and xylene) are much more toxic to fish than the heavy fractions (heavy

paraffins and tars). In the case of turbulent waters, the oil becomes dispersed as droplets into the water. In such cases, the gills of fish can become mechanically contaminated and their respiratory capacity reduced (Svobodova *et al.* 1993). Aquatic plant communities may also be affected by increased siltation. Submerged plants may be stunted and photosynthesis may be reduced. Significant impacts on fish stocks or invertebrate prey could potentially impact on piscivorous species i.e., Cormorant and Common Tern or wading birds e.g. Golden Plover and Curlew due to a reduction in prey availability.

Significant hydrocarbon spillage is very unlikely. However, fuels and oils are required during the construction stage and it is necessary ensure that accidental leakage of these liquids does not occur. All fuels stored on site will be bunded and all chemicals will be stored in an appropriate tank. Mitigation measures for hydrocarbon storage and refueling are included in **Section 6.2** of this report. In the event of a minor hydrocarbon spill and in the context of the available dilution in Cork Harbour SPA, impacts are highly unlikely to occur. However, given the hydrological connection of the proposed development to Cork Harbour SPA, the precautionary principle has been applied and mitigation measures to prevent hydrocarbon (and other chemical) runoff during construction will be implemented.

Although unlikely given the distance from Cork Harbour SPA there is potential for silt and chemical contamination arising during construction works, particularly during groundworks and concrete pouring, to enter the Douglas Estuary. Therefore, in order to prevent any risk of impacts from siltation, a range of standard water protection measures have been included in **Section 6.2** of this report, to ensure there is no impact on the Cork Harbour SPA from silt or chemical contamination of surface water runoff during the construction phase.

Following mitigation, no significant impacts on water quality within the Cork Harbour SPA are predicted to occur during the construction phase. Therefore, the proposed development will have no impact on the integrity of Cork Harbour SPA due to surface water runoff during the construction phase.

5.3.2 Impacts from surface water runoff during operation

The surface water strategy for the development will incorporate SuDS features to reduce run-off and provide biodiversity benefits. Within the proposed development site, the surface water runoff will be collected to a range of source control SuDS before slowly discharging to a storm sewer which will convey the flows towards the natural low point at the south of the site (final storage - StormTech attenuation tanks). Surface water runoff directed to the SuDS features will therefore benefit from their pollutant removal qualities. However, to ensure water quality standards are met, dedicated attenuation facilities that are sized on the basis of a design storm with 100-year return period will be installed. The proposed rate of surface water discharge from the development will be limited to that of the greenfield runoff for a 100-year storm event. Grit-sump manholes will also be installed upstream of the two attenuation areas to remove grit from flows to the interceptor and attenuation areas.

The development site is not identified as an area susceptible to flooding and no history of flooding at the site by the Cork City Development Plan and CFRAM mapping. The CFRAMS Map and Cork City Council Flood Map both indicate that the site lies outside of Flood Zones A and B and can therefore be considered to be located within Flood Zone C. Surface water run-off discharge rates from the development sites may be increased due to the increase in

the area of impermeable surfaces, shorter flow paths through pipes and reduced roughness co-efficient, however the implementation of SuDs features will maintain runoff rates at, or below, existing greenfield runoff rates. Greater run-off volumes generated by the impermeable surfaces will require stormwater storage within the site to provide protection against pluvial flooding events. Surface water attenuation storage has been incorporated into the design to safeguard against storms and associated flooding throughout the lifetime of the development. Further details on SuDs measures are included in **Section 3.3** of this report.

To prevent any increased flooding at the proposed development, it is proposed to implement SuDS in order to limit the discharge from the site to the current greenfield discharge rates. The implementation of these SuDS measures will mitigate the risk of flooding outside of the development site.

Given the operational design measures proposed, the distance from the Cork Harbour SPA and the robust nature of estuarine habitats within the SPA, no significant impact on water quality is predicted to occur and there will be no impact on the conservation objectives of the Cork Harbour SPA due to operational surface water discharges.

5.3.3 Impacts from spread of invasive species

There is potential during the construction phase of the proposed works for invasive species to be spread outside the proposed development site and potentially negatively impact on terrestrial habitats adjoining or within Cork Harbour SPA.

Japanese Knotweed and Himalayan Knotweed were recorded growing within and in close proximity to the proposed development site. Knotweed species are highly invasive, non-native species which was originally introduced as an ornamental plant but has since spread along transport routes and rivers to become a serious problem.

Five other invasive species Cherry Laurel, Buddleia, Pheasant Bush, Wild Clematis and Winter Heliotrope were recorded with a scattered distribution throughout the site These species are not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, their presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011). However, the NBDC notes that under the right ecological conditions these species may have an impact on the conservation goals of a European site or impact on a water body achieving good/high ecological status under the Water Framework Directive (Directive 2000/60/EC).

An outline invasive species management plan (ISMP) has been included in **Appendix 4** of this report. This management plan will include all relevant provisions for site hygiene and appropriate disposal of contaminated soil and subsoil. Following the implementation of mitigation measures outlined in the ISMP, no impact on the integrity of Cork Harbour SPA from the spread of invasive species during construction will occur.

5.3.4 In combination Impacts

In-combination impacts refer to a series of individually modest impacts that may in combination produce a significant impact. The underlying intention of this in combination provision is to take account of in-combination impacts from existing or proposed plans and projects and these will often only occur over time. Other developments near site and potential in-combination impacts are identified in **Table 12**. In the absence of any significant impacts on qualifying interests or conservation objectives associated with this project no significant in-combination impacts have been identified.

Table 12. Other developments near site and potential cumulative impacts

Plans and Projects	Key Policies/Issues/Objectives Directly Related to the Conservation of the Natura 2000 Network	Impact
River Basin Management Plan 2022-2027	The project should comply with the environmental objectives of the Irish RBMP which are to be achieved generally by 2021. Ensure full compliance with relevant EU legislation Prevent deterioration Meeting the objectives for designated protected areas Protect high status waters Implement targeted actions and pilot schemes in focus sub-catchments aimed at: targeting water bodies close to meeting their objective and addressing more complex issues which will build knowledge for the third cycle.	The implementation and compliance with key environmental policies, issues and objectives of this management plan will result in positive in-combination effects to European sites. The implementation of this plan will have a positive impact for the biodiversity. It will not contribute to in-combination or cumulative impacts with the proposed development.
Inland Fisheries Ireland Corporate Plan 2021-2025	To ensure that Ireland's fish populations are managed and protected to ensure their conservation status remains favourable. That they provide a basis for a sustainable world class recreational angling product, and that pristine aquatic habitats are also enjoyed for other recreational uses. To develop and improve fish habitats and ensure that the conditions required for fish populations to thrive are sustained and protected. To grow the number of anglers and ensure the needs of IFI's other key stakeholders are being met in a sustainable conservation focused manner. EU (Quality of Salmonid Waters) Regulations 1988. All works during development and operation of the project must aim to conserve fish and other species of fauna and flora habitat; biodiversity of inland fisheries and ecosystems and protect spawning salmon and trout.	The implementation and compliance with key environmental issues and objectives of this corporate plan will result in positive on-combination effects to European sites. The implementation of this corporate plan will have a positive impact for biodiversity of inland fisheries and ecosystems. It will not contribute to in-combination or cumulative impacts with the proposed works.
Uisce Eireann Capital Investment Plan 2020-2024	Proposals to upgrade and secure water services and water treatment services countrywide.	Likely net positive impact due to water conservation and more effective treatment of water.
Water Services Strategic Plan (WSSP, 2015)	Uisce Eireann has prepared a Water Services Strategic Plan (WSSP, 2015), under Section 33 of the Water Service No. 2 Act of 2013 to address the	The WSSP forms the highest tier of asset management plans (Tier

Plans and Projects	Key Policies/Issues/Objectives Directly Related to the Conservation of the Natura 2000 Network	Impact
	delivery of strategic objectives which will contribute towards improved water quality and biodiversity requirements through reducing: Habitat loss and disturbance from new / upgraded infrastructure; Species disturbance; Changes to water quality or quantity; and Nutrient enrichment /eutrophication.	1) which Uisce Eireann prepare and it sets the overarching framework for subsequent detailed implementation plans (Tier 2) and water services projects (Tier 3). The WSSP also sets out the strategic objectives against which the Uisce Eireann Capital Investment Programme is developed. The current version of the CAP outlines the proposals for capital expenditure in terms of upgrades and new builds within the Uisce Eireann owned assets. Therefore, no adverse significant in-combination effects are envisaged.
NPWS Conservation Management Plans	Conservation Management Plans have not been fully prepared for the European sites being assessed. However, conservation objectives along with supporting documents for the Cork Harbour SPA	The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site. The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. The resultant effects of conservation objectives are a net positive and there is no potential for in

Plans and Projects	Key Policies/Issues/Objectives Directly Related to the Conservation of the Natura 2000 Network	Impact
		combination effects on European sites.
WWTP discharges	Carrigtwohill and Environs WWTP, Carrigrennan WWTP, Midleton WWTP, Whitegate-Aghada WWTP, Midleton WWTP, Ringaskiddy Village WWTP's, Cobh & North Cobh WWTP's, Passage-Monkstown WWTP.	Discharges from municipal WWTPs are required to meet water quality standards. Uisce Eireann Capital Investment Plan proposes to upgrade water treatment services countrywide (see above). The long-term cumulative impact is predicted to be negligible.
Other developments – developments under construction in vicinity of proposed development site	The list below outlines a list of other permitted/proposed projects in the site's vicinity. Cork City Council Ref 2544008. DIE Ireland ICAV 09/07/2025 Permission at Mahon Point Shopping Centre for a mixed-use development comprising residential, retail, retail services, retail warehouse, office, commercial, restaurant/café use, a creche and a leisure/gym facility and all associated works. Outcome. Further Information Requested Cork City Council 2442822 City Gate Plaza Developments Limited 03/04/2024 29/07/2024 Permission for development of 2 no. 4-storey over ground floor office buildings on a site known as City Gate Plaza, Granted planning 29/07/2024 2241612The Alzheimers Society of Ireland 07/12/2022 Permission for alterations and change from existing Ambulance Garage to a new General purpose Cafe/Lounge area ancillary to existing Day Care Centre Granted planning 07/02/2023 Cork City Council Ref 22/40809 - ABP appeal PL28.314420 / ABP ref 314420 Hibernia Star Limited, Permission for ~10,000 m² office space and a 165-bedroom hotel to be provided in 2 no. buildings (up to 10 storeys) Granted by ABP on 27 Nov 2023 ABP Ref: 310378-21 Montip Horizon Limited 14/06/2021 Amendments to the scheme permitted under ABP 301991-18 principally comprising an increase in the number of units across all 6 no. blocks of the permitted development is sought from the 413 permitted to 437 no. Granted on the 15th of February 2022	If the construction of these projects were to run concurrently with the Phase 1 'The Farm' there is potential for local in-combination disturbance effects, as the sites are located in proximity to each other. Should this situation arise, construction activities will be planned and phased, in consultation with the construction management teams. However, given the distance from the SPA and the absence of valuable habitats for SCI birds within the proposed development site, no in-combination disturbance impacts on Cork Harbour SPA has been identified. No in-combination impacts were identified during the operational phase of the proposed development. The proposed development will not result in any significant impacts on water quality or aquatic ecology. Therefore, no in-combination effects on

Plans and Projects	Key Policies/Issues/Objectives Directly Related to the Conservation of the Natura 2000 Network	Impact
	Cork City Council Ref 2140146 DIE Ireland ICAV c/o Deka Immobilien 30/04/2021 Permission for the development of a lengthened vehicle queueing lane and ancillary pedestrian/cycle infrastructure at Mahon Point Shopping Centre, Mahon Link Road, Cork. Granted on the 24/11/2021 Cork City Council Ref: 21/40481 . The Bessborough Centre Limited 07/09/2021 Permission for the construction of a new single storey detached classroom. Granted on the 22/12/2021 Cork City Council Ref: 2140503 The Bessborough Centre Limited 16/09/2021 Permission for the change of use of an existing building from office use to classrooms and associated educational use. Granted on the 17/1/2022 Cork City Council Ref: 2140453 First Step Homes Ireland Ltd 27/08/2021 Permission to alter and extend the previously granted Creche building Conditional Grant on 17/1/2022 Cork City Council 19/38875. 24/43504 O'Flynn Construction 15/11/2019 and 16/12/2024 permission was granted for construction of office with 12,004 m2 GFA in March 2020 permission for change of use to health centre/clinic use Conditional Grant 22/04/2020. Permission extended to 31/07/2030. Conditional Grant on 18/02/2025 Cork City Council 17/3734 Murphy Transport Ltd. 29/3/2017 permission was granted for construction of 35 houses in March 2017 Lapsed Cork City Council 21/40196 ABP-314310-22 and Amended 24/43351 Clyde Real Estate Cork Ltd. construction of 196 no. apartment units and creche 23/08/2022. January 2025 Potential future Phase – 3 'North Fields' Construction of 200 no. apartments	water quality have been identified. No in-combination effects are predicted to occur within the Cork Harbour SPA as a result of these proposed and permitted projects.
Other developments under consideration/recently refused	The assessment also has regard to the development opportunity that remains in the nearby site where the following planning application was refused in 2021:	If the construction of these projects were to run concurrently with the Phase 1 'The Farm' there is potential for local in-combination disturbance

Plans and Projects	Key Policies/Issues/Objectives Directly Related to the Conservation of the Natura 2000 Network	Impact
	Cork City Council Ref: 2039705/ABP-309560-1 Permission for the construction of 67 apartments in an 8-storey apartment. A Natura impact statement (NIS) will be submitted to the planning authority with the application. Bessborough, Ballinure, Blackrock, Co Cork. The ABP Inspector considered that, in principle, should the lands immediately to the north be developed the subject site would be suitable for residential development whereby a material contravention of the zoning provisions of the development plan could be countenanced. These lands therefore are included in this assessment as they retain development potential.	effects, as the sites are located in proximity to each other. Should this situation arise, construction activities will be planned and phased, in consultation with the construction management teams. However, given the distance from the SPA and the absence of valuable habitats for SCI birds within the proposed development site, no in-combination disturbance impacts on Cork Harbour SPA has been identified. No in-combination impacts were identified during the operational phase of the proposed development. The proposed development will not result in any significant impacts on water quality or aquatic ecology. Therefore, no in-combination effects on water quality have been identified. No in-combination effects are predicted to occur within the Cork Harbour SPA as a result of these proposed and permitted projects.
Future development in landholding	Phase 2 'The Meadows' The proposed development provides for the construction of 282 no. apartments and a creche. Ancillary site works include the provision of substations, outdoor amenity areas, landscaping, predominantly under-podium car parking spaces, bicycle parking spaces, motorbike parking spaces, bin stores, public lighting, and all supporting site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessborough Road.'	If the construction of these projects were to run concurrently with the Phase 1 'The Farm' there is potential for local in-combination disturbance effects, as the sites are located in proximity to each other. Should this situation arise, construction activities will be planned and phased, in consultation with the construction

Plans and Projects	Key Policies/Issues/Objectives Directly Related to the Conservation of the Natura 2000 Network	Impact
		management teams. However, given the distance from the SPA and the absence of valuable habitats for SCI birds within the proposed development site, no in-combination disturbance impacts on Cork Harbour SPA has been identified. No in-combination impacts were identified during the operational phase of the proposed development. The proposed development will not result in any significant impacts on water quality or aquatic ecology. Therefore, no in-combination effects on water quality have been identified. No in-combination effects are predicted to occur within the Cork Harbour SPA as a result of these proposed and permitted projects.

The area surrounding the proposed development includes a mixture of retail and residential developments as well as a large road network. Wastewater is also discharged from other settlements (e.g. Blarney, Douglas, Ringaskiddy) and local industry. However, in the absence of any significant impact associated with this project no cumulative impacts on water quality have been identified. Similarly, no significant cumulative impacts in relation to noise and disturbance have been identified.

6. Mitigation

6.1 General Mitigation Measures

The mitigation measures have been drawn up in line with current best practice and include an avoidance of sensitive habitats at the design stage and mitigation measures will function effectively in preventing significant ecological impacts. The following mitigation measures will be implemented:

A Construction Environmental Management Plan (CEMP) has submitted with this application. The CEMP contains the construction mitigation measures, which are set out in this report. Mitigation measures related to the control of invasive species during the construction phase are included in the ISMP (**Appendix 4**).

Mitigation measures (of relevance in respect of any potential ecological effects) will be implemented throughout the project, including the preparation and implementation of detailed method statements.

The following guidelines have been taken into account in the preparation of this document:

- CIRIA. 2015 (Fourth Edition). Environmental Good Practice on Site Guide. CIRIA C741. London, UK.
- CIRIA. 2001. Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors. CIRIA C532. London 2001.
- IFI (Inland Fisheries Ireland). 2016. Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters.

6.2 Construction Works Management

The development of Phase 1 - The Farm will include the construction and completion of 140 no. residential units and creche comprising 5 apartment blocks and all ancillary works. Prior to any construction works being carried out, the proposed development will initially involve some site clearance, the demolition of existing farm buildings and sheds and earthworks in order to clear and grade the site to accommodate the construction of all associated engineering works and subsequently the building foundations.

This will involve the delivery of machinery, site equipment/plant and materials and the removal of some material off-site. Any material that can be reused later in the construction process will be stockpiled in an appropriate location. This will reduce the number of vehicular movements on the public roads. Once the site access, parking and compound facilities are established, the main haulage of materials to the site will include stone, concrete, blocks, steel and other building materials. Appropriate traffic management measures will be provided to minimise the impact of construction traffic on the local road network as detailed in Section 4 of this report.

An indicative construction sequence is outlined below to illustrate the buildability of the project. The actual construction sequence will be confirmed when any conditions of planning are received, and construction appointments confirmed.

To develop the complete site, the following works will be required to be carried out:

- Provision of a temporary construction access from the existing Bessborough Road into the site (at the location of the proposed permanent entrance), safe and secure site compound including welfare facilities for workers and the erection of temporary boundary fencing.
- Measures to reduce the potential risk of impacts to retained trees.
- Creation of a storage area for surplus plant and materials.

- Creation of a site batch concrete area.
- Creation of silt traps at the low point to the south of the construction site to prevent construction runoff towards natural vegetation and Cork Harbour estuary watercourse.
- Demolition of existing farm buildings and sheds and management of the materials arising from that demolition.
- Trenching for underground services including foul sewer, surface water drainage including attenuation, water mains, gas, telecommunications, electricity and lighting.
- Construction of a new pedestrian/cycle bridge over the existing Passage Greenway and linking to the existing down ramp to the greenway.
- Construction and connection of underground services to existing underground services.
- Foul sewer connection will be made across the Ballinure walkway to the west of the site to connect to the existing wastewater pumping station close to the western boundary of the site.
- The final section of the foul sewer connection to the existing Ballinure wastewater pumping station will be made using directional drilling methods (and not open-cut trenching) to maintain the integrity of the existing boundary wall to the estate and to allow the walkway to remain in use while these works proceed. A pipe jacking chamber will be constructed on the eastern side of the existing boundary wall to facilitate this installation work.
- Surface water connection will be made to an existing surface water sewer in the south-western area of the site.
- Watermain connections will be made to the existing watermain in Bessborough Road.
- No dwelling unit will be occupied prior to the completion of an approved foul sewer outfall and no hard-standing area will be completed without an approved storm outfall.
- Excavation and concrete works for strip and pad footing foundations.
- Piling to some blocks, likely to be bored piles with in-situ concrete and rebar infilling.
- Construction of the apartment buildings, plant and storage areas, likely to be constructed in reinforced-concrete frames.
- Construction of ancillary site works including the provision of 1 substation, outdoor amenity areas, landscaping, 58 car parking spaces, 5 motorbike spaces, 330 bicycle parking spaces, bin stores, public lighting and all supporting site development works.
- Erection of permanent boundary fencing, landscaping and lighting.

It is estimated that Phase 1 construction will take approximately 24 months to complete.

6.3 Water and wastewater controls

All works carried out as part of these works will comply with all Statutory Legislation including the Local Government (Water Pollution) Act, 1977 and 1990 (as amended) and the contractor will cooperate in-full with Uisce Éireann and the Environmental Department of Cork City Council. There is no immediate watercourse in the vicinity of the site. The Douglas Estuary is located approximately 250m south of the site on the southern side of the N40.

The following description outlines the proposed water/wastewater works to be carried out during Phase 1:

- Surface Water - The proposed surface water network will include a drainage pipe network, attenuation storage and SuDS features. The restricted discharge from the site will be conveyed in a new surface water pipe laid from the western boundary of the site in a westerly direction across the Bessborough site to connect to an existing 750mm diameter surface water sewer upstream of its connection to the 1350mm diameter surface water pipe which discharges to the Douglas Estuary south of the N40.
- Foul Drainage - Wastewater collection within the proposed development will be via a network of 150mm and 225mm diameter gravity sewers, which will direct the flows to the southwest corner of the site. A new gravity sewer will then convey the flows in a westerly direction and will connect directly to the Bessborough wastewater pumping station.
- Potable Water - A 300mm diameter ductile iron watermain is located in Bessborough Road to the north of the site. Uisce Éireann have advised that the connection to serve the development is to be made to this existing main.

The mitigation measures outlined below provide the water management controls required to be implemented by potential Contractors and Sub-contractors and set out the proposed procedures and operations to be utilised on the proposed development to mitigate against any water related environmental impacts. The mitigation and control measures outlined herein will be employed on site during the construction phase of the development.

The main areas of water related concerns covered by this section are:

- Pre-Construction (Inc Site Clearance)
- Construction Phase drainage controls
- Earthworks (i.e, infrastructure & drainage works) and surface water quality protection
- Temporary stockpiles water management and controls; and
- Fuel usage, storage and management.

6.4 Water Mitigation Measures

Surface water runoff during site clearance and construction stage can be potentially contaminated. The most likely forms of contamination are 'siltation' and spillage. Siltation occurs when soil and particulate matter are washed away in rainfall events by rainwater. Siltation will be mitigated on the project using stilling basins and strainers within the site to prevent silt being lost to the drainage network.

6.4.1 Excavation, Erosion and Sediment Control

- Measures will be implemented to capture and treat sediment laden water run off (e.g. silt traps; siltbuster) The area of exposed ground will be minimised and as much vegetation as possible will be retained for as long as is practical
- Delay clearing and topsoil stripping of each area until work is ready to proceed.
- Close and backfill trenches as soon as practically possible
- Any earthworks temporary stockpile areas will require silt fencing to be installed.
- Any on-site settlement areas are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion
- Surface water runoff from areas stripped of topsoil and surface water collected in excavations will be directed to on-site settlement areas, at the lower, southwest end of the site, where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.
- Surface water discharge points during the construction phase are to be agreed Cork City Council's Environment Section prior to commencing works on site.
- As fuels and oils are required during construction stage, it is necessary to mitigate the possibility of there being an accidental leakage of these liquids. There will be very limited storage of fuels on site and any fuels stored on site will be bunded and all chemicals will be stored in an appropriate tank. Should any spillage occur on site during construction, it is likely that there will be a localised moderate impact in the short term on the environment.

6.4.2 Accidental Spills and Leaks

All oils, fuels, paints and other chemicals will be stored in a secure bunded hardstand (impervious) area

Refuelling and servicing of construction machinery will take place in a designated hard stand area which is also remote from any surface water inlets.

A response procedure will be put in place to deal with any accidental pollution events and spillage kits will be available and construction staff will be familiar with the emergency procedures and use of equipment.

6.4.3 Concrete

Concrete batching will take place on-site and offsite. Wash down and wash out of concrete trucks will take place off site and any excess concrete will not be disposed of on site.

Pumped concrete will be monitored to ensure there is no accidental discharge.

Mixer washings are not to be discharged into surface water drains and will be directed to settlement areas.

6.4.4 Wheel Wash Areas

Discharge from any vehicle wheel wash areas is to be directed to onsite settlement areas, debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility.

Through consultation with the Site Manager (SM)/Site Environmental Manager (SEM), a schedule for surface water quality monitoring will be drawn up. This will be finalised prior to the start of construction. Where monitoring parameters are found to exceed the standards laid down, the SM/SEM will initiate and report corrective actions. This may necessitate the alteration of the environmental control measures and in turn the relevant construction method statement.

It is proposed to implement a programme for monitoring water quality at the outfall tie-in as part of the construction of this development, in agreement with the Planning Authority. This programme and sampling requirements will be agreed with Cork City Council.

6.5 Inspections and monitoring

The environmental and waste management performance of the contractor will be monitored through site inspections. Monitoring will be carried out in accordance with the requirements of the EIAR so that construction activities are undertaken in a manner that does not give rise to significant negative effects. Suitable monitoring programmes will need to be developed, implemented, documented, and assessed in accordance with the measures outlined in the detailed CEMP and EIAR.

The results of all environmental monitoring activities will be reviewed by the Site Environmental and Waste Manager on an ongoing basis to enable trends to be identified and corrective actions to be implemented as necessary.

Routine inspections of construction activities will be carried out by the Site Environmental and Waste Manager on a daily basis to ensure all necessary environmental and waste management measures relevant to the construction activities are being effectively implemented by construction staff. Detailed inspections should be carried out weekly which would be appropriately documented by the Environmental and Waste Manager. The inspection routine should include:

- Summary of compliance/non-compliance with the detailed CEMP
- Results and interpretation of monitoring programmes
- Key issues noted during inspections.

- Summary record of non-conformities, incidents and corrective actions
- Summary of environmental complaints and queries received in relation to environmental matters; and
- Summary record of environmental training undertaken by staff.

6.6 Invasive species

In addition to the possible advance treatment works and pre-construction survey, when the works areas become available to the contractor for fencing and commencement of site clearance, areas identified as requiring specific invasive species treatment will be demarcated and the designated control measures implemented at the earliest possible stage to reduce the risk of spread along the proposed development or beyond the land take.

There are a number of management options that may be implemented to control and prevent the spread of invasive species. Those involved in the application of herbicides/pesticides will be competent to do so and will have sufficient experience and knowledge in the area of herbicides/pesticides application.

All staff involved in the application of herbicides/pesticides will have received appropriate training, which may include achieving competency certification in the safe use of herbicides/pesticides through a National Proficiency Tests Council registered assessment centre or achieving an appropriate FETAC award in this area.

As noted in **Section 4.4.3** of this report, there is no statutory obligation to remove Cherry Laurel, Pheasant Bush, Buddleia, Wild Clematis or Winter Heliotrope. However, all invasive species will be removed via mechanical movement and herbicide treatment prior to the commencement of construction. An Outline Invasive Species Management Plan (ISMP) has been included in **Appendix 4** of this report.

7. Screening conclusion and statement

The AA screening concluded, on the basis of objective information and in view of best scientific knowledge, the possibility of significant effects from the proposed project on European sites could not be ruled out and therefore an Appropriate Assessment was required. The AA screening concluded that there was potential for the proposed development to significantly impact the Cork Harbour SPA, via surface water runoff and the spread of invasive species during construction as well as potential in-combination impacts.

The NIS has been prepared to inform and assist An Coimisiún Pleanála to assess, in view of best scientific knowledge, if the proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site, Cork Harbour SPA.

This NIS has examined and analysed, in light of the best scientific knowledge, with respect to Cork Harbour SPA within the potential zone of influence of the proposed development, the potential effect pathways, how these could impact on SCI species and habitats and whether the predicted effects would adversely affect the integrity of Cork Harbour SPA.

Mitigation measures are set out in **Section 6** of the NIS and they ensure that any effects on the conservation objectives of Cork Harbour SPA will be avoided during the proposed development such that there will be no risk of adverse effects on the integrity of these European sites.

It has been objectively concluded following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted effects from the proposed development and with the implementation of the mitigation measures proposed, that the construction and operation of the proposed development will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects. There is no reasonable scientific doubt in relation to this conclusion. The competent authority will make the final determination in this regard.

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Appendices

Appendix 1 Site synopses

Cork Harbour Special Protection Area (Site Code 004030)

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay and the Rostellan and Poulnabibe inlets.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor and Corophium volutator. Green algae species occur on the flats, especially Ulva lactua and Enteromorpha spp. Cordgrass (Spartina spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Salt marsh species present include Sea Purslane (Halimione portulacoides), Sea Aster (Aster tripolium), Thrift (Armeria maritima), Common Saltmarsh-grass (Puccinellia maritima), Sea Plantain (Plantago maritima), Laxflowered Sea-lavender (Limonium humile) and Sea Arrowgrass (Triglochin maritima). Some shallow bay water is included in the site. Cork Harbour is adjacent to a major urban centre and a major industrial centre. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Blacktailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl, for which it is amongst the top five sites in the country. The two-year mean of summed annual peaks for the entire harbour complex was 55,401 for the period 1995/96 and 1996/97. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (905) and Redshank (1,782) - all figures given are average winter means for the two winters 1995/96 and 1996/97. At least 18 other species have populations of national importance, as follows: Little Grebe (51), Great Crested Grebe (204), Cormorant (705), Grey Heron (63), Shelduck (2,093), Wigeon (1,852), Teal (922), Pintail (66), Shoveler (57), Red-breasted Merganser (88), Oystercatcher (1,404), Golden Plover (3,653), Grey Plover (84), Lapwing (7,688), Dunlin (10,373), Bartailed Godwit (417), Curlew (1,325) and Greenshank (26). The Shelduck population is the largest in the country (over 10% of national total). The site has regionally or locally important populations of a range of other species, including Whooper Swan (10), Pochard (145) and Turnstone (79). Other species using the site include Gadwall (13), Mallard (456), Tufted Duck (113), Goldeneye (31), Coot (53), Mute Swan (38), Ringed Plover (34) and Knot (38). Cork Harbour is a nationally important site for gulls in winter and autumn, especially Black-headed Gull (4,704), Common Gull (3,180) and Lesser Black-backed Gull (1,440).

A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter.

The wintering birds in Cork Harbour have been monitored since the 1970s and are counted annually as part of the I-WeBS scheme.

Cork Harbour has a nationally important breeding colony of Common Tern (3-year mean of 69 pairs for the period 1998-2000, with a maximum of 102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Extensive areas of estuarine habitat have been reclaimed since about the 1950s for industrial, port-related and road projects, and further reclamation remains a threat. As Cork Harbour is adjacent to a major urban centre and a major industrial centre, water quality is variable, with the estuary of the River Lee and parts of the Inner Harbour being somewhat eutrophic. However, the polluted conditions may not be having significant impacts on the bird populations. Oil pollution from shipping in Cork Harbour is a general threat. Recreational activities are high in some areas of the harbour, including jet skiing which causes disturbance to roosting birds.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, there are at least 18 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

Great Island Channel SAC Site Code: 001058

The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Geologically, Cork Harbour consists of two large areas of open water in a limestone basin, separated from each other and the open sea by ridges of Old Red Sandstone. Within this system, Great Island Channel forms the eastern stretch of the river basin and, compared to the rest of Cork Harbour, is relatively undisturbed. Within the site is the estuary of the Owennacurra and Dungourney Rivers. These rivers, which flow through Midleton, provide the main source of freshwater to the North Channel.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1140] Tidal Mudflats and Sandflats [1330] Atlantic Salt Meadows

The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. These muds support a range of macro-invertebrates, notably Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor and Corophium volutator. Green algal species occur on the flats, especially Ulva lactua and Enteromorpha spp. Cordgrass (Spartina spp.) has colonised the intertidal flats in places, especially at Rossleague and Belvelly.

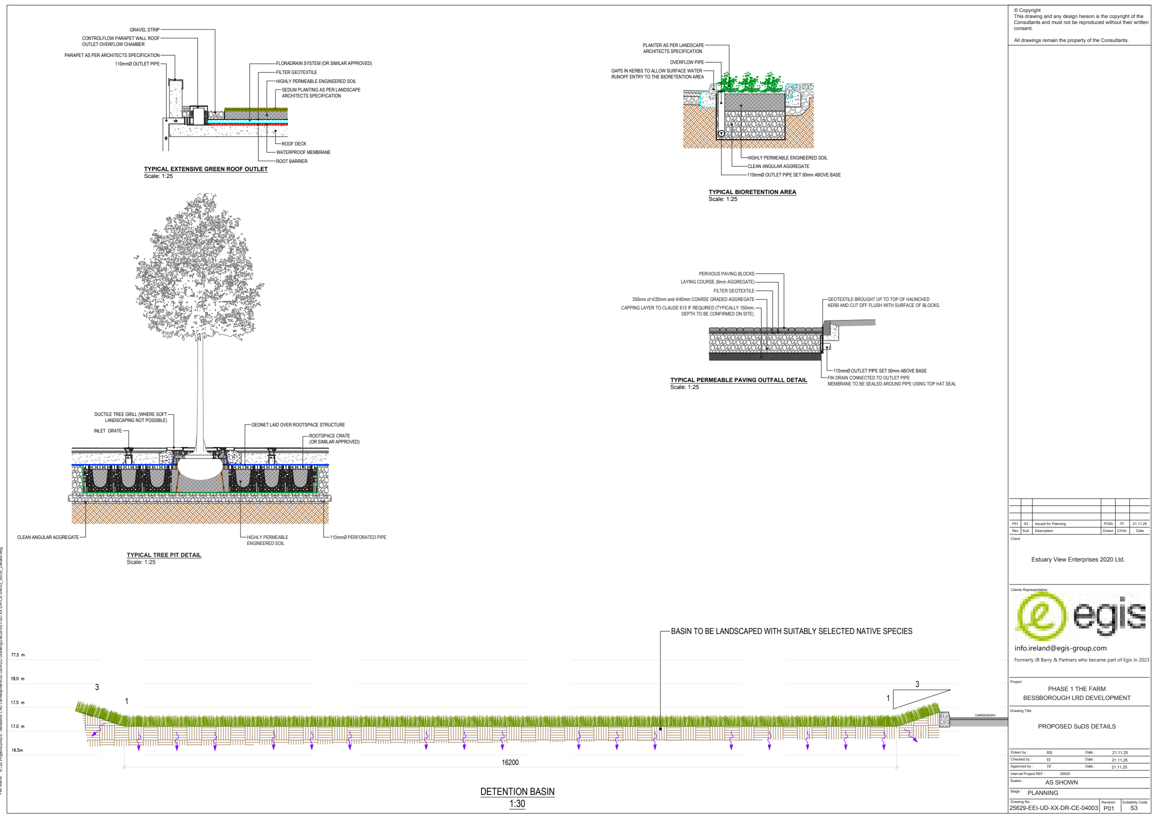
The saltmarshes are scattered through the site and are all of the estuarine type on mud substrate. Species present include Sea Purslane (Halimione portulacoides), Sea Aster (Aster tripolium), Thrift (Armeria maritima), Common Saltmarsh-grass (Puccinellia maritima), Sea Plantain (Plantago maritima), Greater Sea-spurrey (Spergularia media), Lax-flowered Sea-lavender (Limonium humile), Sea Arrowgrass (Triglochin maritimum), Sea Mayweed (Matricaria maritima) and Red Fescue (Festuca rubra).

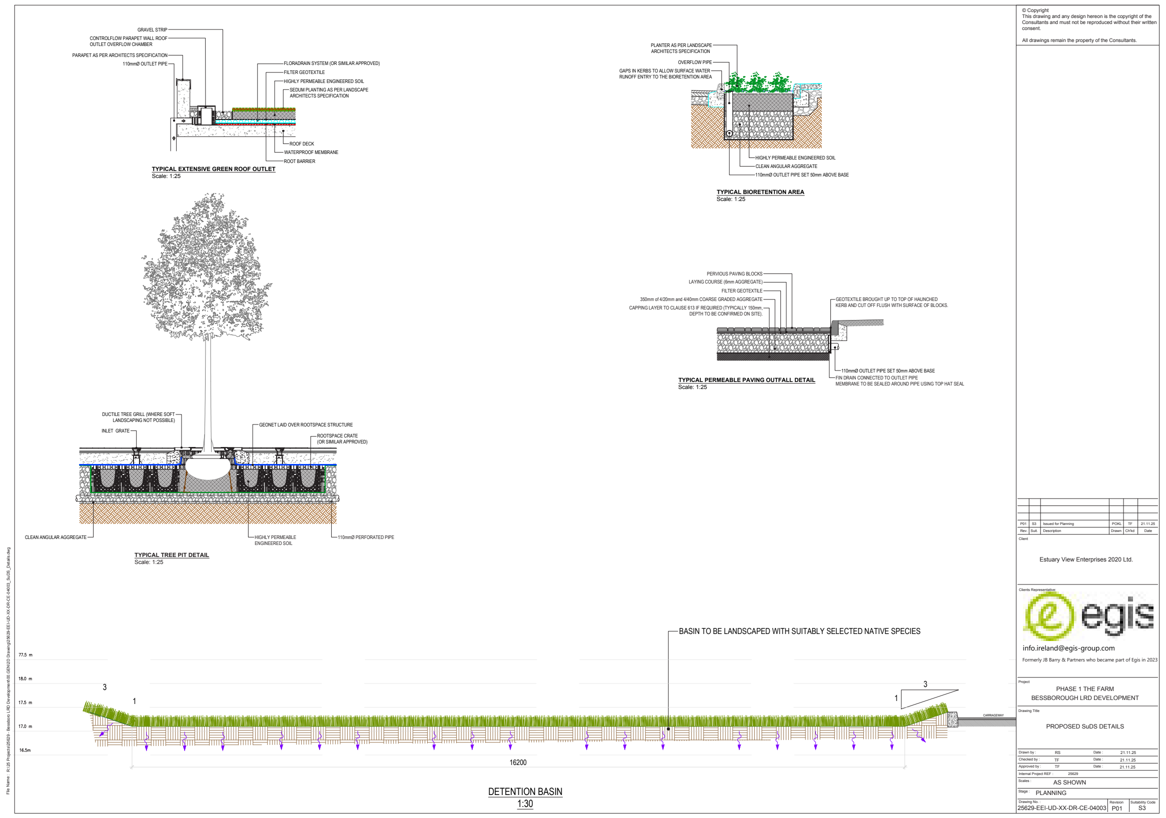
The site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour, namely North Channel, Harper's Island and Belvelly-Marino Point. Shelduck is the most frequent duck species with 800-1,000 birds centred on the Fota/Marino Point area. There are also large flocks of Teal and Wigeon, especially at the eastern end. Waders occur in the greatest density north of Rosslare, with Dunlin, Godwit, Curlew and Golden Plover the commonest species. A population of about 80 Grey Plover is a notable feature of the area. All the mudflats support feeding birds; the main roost sites are at Weir Island and Brown Island, and to the north of Fota at Killacloyne and Harper’s Island. Ahanesk supports a roost also but is subject to disturbance. The numbers of Grey Plover and Shelduck, as given above, are of national importance.

The site is an integral part of Cork Harbour which is a wetland of international importance for the birds it supports. Overall, Cork Harbour regularly holds over 20,000 waterfowl and contains internationally important numbers of Black-tailed Godwit (1,181) and Redshank (1,896), along with nationally important numbers of nineteen other species. Furthermore, it contains large Dunlin (12,019) and Lapwing (12,528) flocks. All counts are average peaks, 1994/95 – 1996/97. Much of the site falls within Cork Harbour Special Protection Area, an important bird area designated under the E.U. Birds Directive.

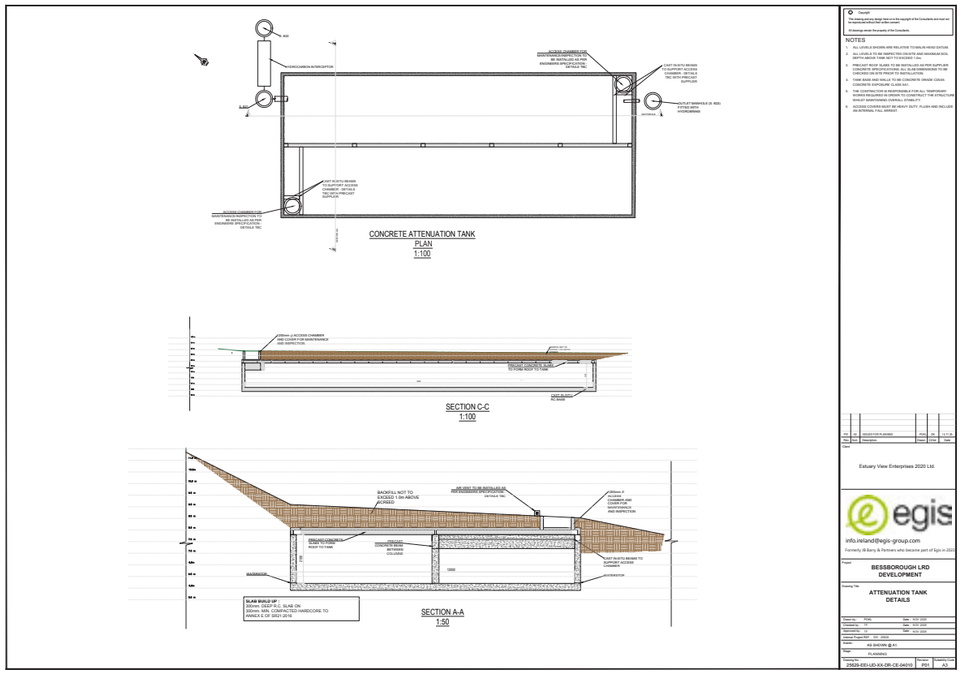
While the main land use within the site is aquaculture (oyster farming), the greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments.

The site is of major importance for the two habitats listed on Annex I of the E.U. Habitats Directive, as well as for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.





Bessborough Phase 1 'The Farm' LRD AA Screening and NIS 76 DixonBrosnan 2025



Appendix 3. Letter from Uisce Eireann

CONFIRMATION OF FEASIBILITY

Uisce Éireann
Irish Water

Ray Sheehan
EGIS
3 Eastgate Road, Eastgate Business Park
Little Island, Cork
T45KH74

4 November 2025

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

Our Ref: CDS25006228 Pre-Connection Enquiry
The Meadows, Bessborough, Blackrock, Cork City

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 300 unit(s) at The Meadows, Bessborough, Blackrock, Cork City, (the **Development**).

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible Subject to upgrades
  Water Network Upgrades are required in order to facilitate this development. An upsizing of approx. 150 meters of existing 150 mm diameter watermain to 200 mm diameter network would need to be facilitated, with this upgrade to be funded by the developer. The proposed 150 mm diameter connection to the public water network should be onto the upsized 200 mm water main to the West of the development. The confirmation of feasibility does not extend to your fire flow requirements. Uisce Éireann cannot guarantee that the flow rates and residual pressures will meet the requirements of the Fire Authority.
- **Wastewater Connection** - Feasible without infrastructure upgrade by Uisce Éireann
  The Connection point for the proposed development shall be to the new and proposed infrastructure that shall be put in place to serve the proposed adjacent development known as "The Farm". Alternatively, and pending phasing requirements, the Connection point for the proposed development shall be to, or as near as possible to the inlet manhole to the Existing Bessboro Wastewater Pump Station. All relevant Quality Assurances, Wayleaves, Easements, Confirmation of capacity and Permissions would need to be obtained by the Developer.

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Uisce Éireann is a designated activity company, limited by shares.
Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Uisce Éireann's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann's network(s). This is not a connection offer and capacity in Uisce Éireann's network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit www.water.ie/connections, **email** newconnections@water.ie or contact 1800 278 278.

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

Appendix 4. ISMP

DixonBrosnan
environmental consultants

Outline Invasive Species Management Plan (ISMP)

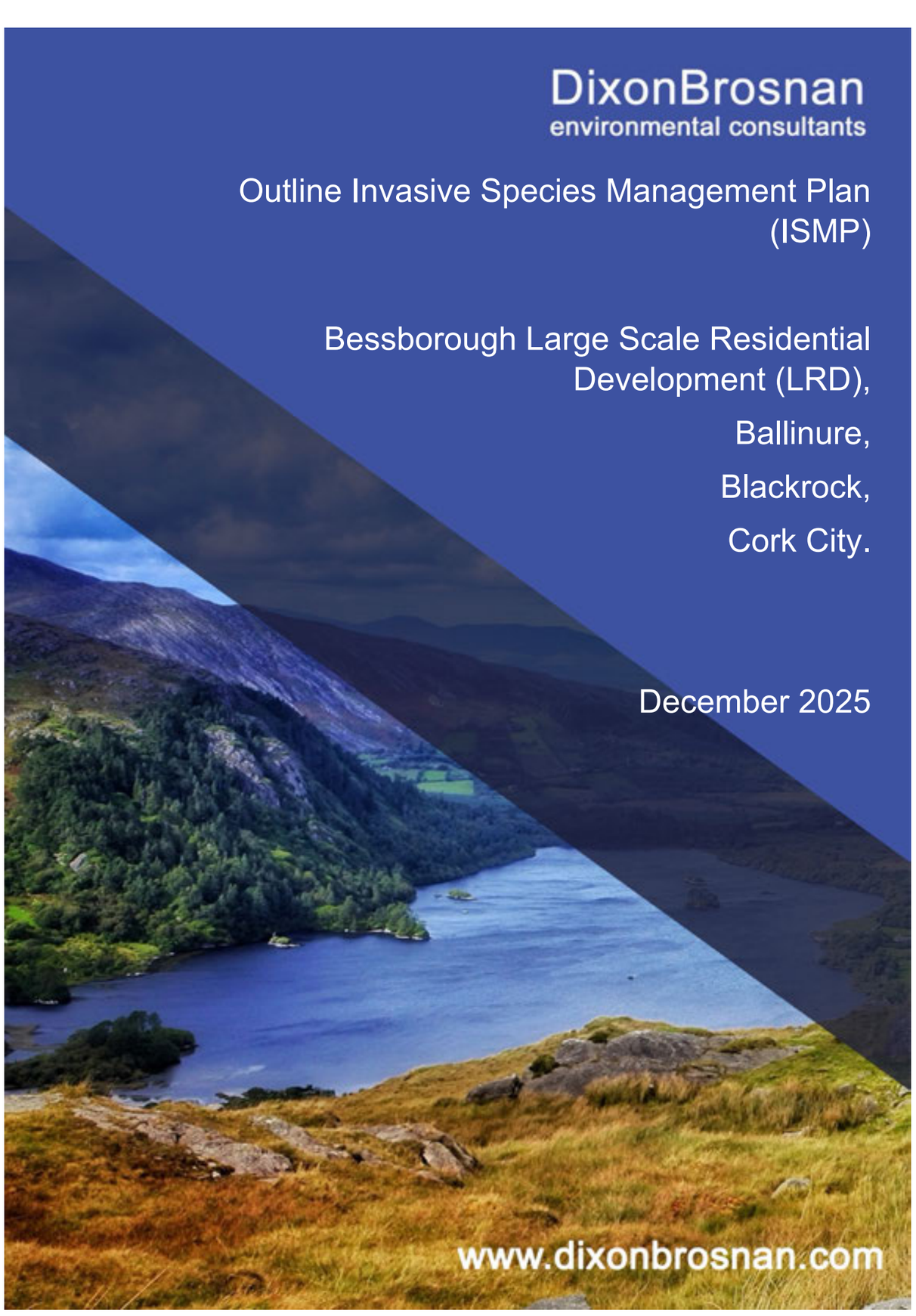
Bessborough Large Scale Residential Development (LRD),

Ballinure,

Blackrock,

Cork City.

December 2025



DixonBrosnan
environmental consultants

Project	Outline Invasive Species Management Plan (ISMP) Bessborough Large Scale Residential Development, Ballinure, Blackrock, Cork City.	
Client	Estuary View Enterprises Ltd	
Project Ref.	25098	
Report No.	25098.01	
Client Ref.	-	
Date	**Revision**	**Prepared By**
08/12/25	Issue to client	Carl Dixon BSc MSc
		Sorcha Sheehy BSc PhD

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1. Introduction

DixonBrosnan were commissioned to survey for invasive species at the Bessborough Large Scale Residential Developments (LRDs) at Ballinure, Blackrock, Cork City. The study area includes the Phase 1 'The Farm' and Phase 2 'The Meadows' sites. As set out in the submitted site masterplan, the applicant has intentions for a third follow on phase of development to the west and south of Bessborough House, subject to zoning (i.e. Phase 3 'North Fields') and this was also included in the study area for invasive species.

This report and survey work was completed by Dr. Sorcha Sheehy PhD (Ecology/ornithology) and Carl Dixon MSc (Ecological Monitoring). Field surveys were completed by Carl Dixon MSc.

Carl Dixon holds an Honours Degree (BSc) in Ecology and a Masters (MSc) in Ecological Monitoring from UCC. He is a senior ecologist who has over 25 years' experience in ecological assessment. Prior to setting up DixonBrosnan Environmental Consultants in 2000, Carl set up and ran Core Environmental Services which included REPS planning for landowners and ecological assessments. Carl has particular experience in freshwater ecology, including electrofishing fish stock assessments and water quality assessments. He also has considerable experience in habitat mapping and mammal ecology including survey work and reporting in relation to Badgers and bats. He was the primary coordinator and surveyor for a heritage council-funded project serving all the river bridges in county Waterford for bats. He has designed bat roosts for Lesser horseshoe in conjunction with the NPWS for sites in West Cork. He is currently designing a dedicated bat roost for a large pharmaceutical plant in Co Limerick. Carl has completed specialized training courses relating to bats in Ireland and the UK and has considerable experience in using a variety of bat survey equipment and subsequent software analysis of data.

Other competencies include surveys for invasive species and bird surveys. Carl has extensive experience with regards to EIAR and NIS mitigation and impact assessment. He has experience in large-scale industrial developments with extensive experience in complex assessments as part of multi-disciplinary teams. Such projects include gas pipelines, incinerators, electrical cable routes, oil refineries and quarries.

Sorcha Sheehy PhD (Ecology/ornithology) is an ecologist and ornithologist who has worked for 15 years in environmental consultancy. She has worked on Screening/NISs for a range of small and large-scale projects with expertise in assessing impacts on birds. Sorcha's PhD research focused on bird behaviour at airports, where she studied bird avoidance behaviour and collision risk to aircraft. Her research involved field observations, post-mortem analysis and radar surveys. Sorcha has worked on bird collision risk assessments at airports throughout Ireland including Dublin airport, Cork airport, Shannon airport and Kerry airport. During her consultancy work Sorcha carried out field-based surveys and environmental reports including NIS, AA screening and EIARs. Notable projects include the Arklow Bank Wind Park, Indaver Ireland Waste Management Facility at Ringaskiddy, Irving Oil Whitegate Refinery (IOWR), Shannon LNG and Greenlink Interconnector.

2. Invasive species – desktop review

Non-native plants are defined as those plants which have been introduced outside of their native range by humans and their activities, either purposefully or accidentally. Invasive non-native species are so-called as they typically display one or more of the following characteristics or features: (1) prolific reproduction through seed dispersal and/or re-growth from plant fragments; (2) rapid growth patterns; and, (3) resistance to standard weed control methods.

Where a non-native species displays invasive qualities and is not managed it can potentially: (1) out compete native vegetation, affecting plant community structure and habitat for wildlife; (2) cause damage to infrastructure including road carriageways, footpaths, walls and foundations; and, (3) have an adverse effect on landscape quality.

The National Biodiversity Data Centre's (NBDC) online database provides data on the distribution of species within 10km grid squares. The site of the proposed development lies within 10km square W77 of Ordnance Survey Ireland's National Grid System. The NBDC lists a number of both aquatic and terrestrial high impact invasive species which have been recorded within grid square W77 (**Table 1**).

Table 1. High impact invasive species recorded in W77

Species group	Species name
Bird	African Sacred Ibis (*Threskiornis aethiopicus*)
Bird	Ring-necked Parakeet (*Psittacula krameri*)
Bird	Ruddy Duck (*Oxyura jamaicensis*)
Flowering plant	Cherry Laurel (*Prunus laurocerasus*)
Flowering plant	*Fallopia japonica x sachalinensis = F. x bohemica*
Flowering plant	Giant Hogweed (*Heracleum mantegazzianum*)
Flowering plant	Giant Knotweed (*Fallopia sachalinensis*)
Flowering plant	Japanese Knotweed (*Fallopia japonica*)
Flowering plant	*Rhododendron ponticum*
Terrestrial mammal	American Mink (*Neovison vison)*
Terrestrial mammal	Brown Rat (*Rattus norvegicus*)
Terrestrial mammal	Ferret (*Mustela putorius subsp. furo*)
Terrestrial mammal	House Mouse (*Mus musculus*)
Terrestrial mammal	Sika Deer (*Cervus nippon*)

Source NBDC database 12/11/25

The control of invasive species in Ireland comes under the Wildlife (Amendment) Act 2000, where it states that

'Any person who— [...] plants or otherwise causes to grow in a wild state in any place in the State any species of flora, or the flowers, roots, seeds or spores of flora, ['refers only to exotic species thereof'][...] otherwise than under and in accordance with a licence granted in that behalf by the Minister shall be guilty of an offence.'

The Birds and Natural Habitats Regulations 2011 (SI 477 of 2011), Section 49(2) prohibits the introduction and dispersal of species listed in the Third Schedule, which includes Rhododendron *Rhododendron ponticum* and Japanese Knotweed *Fallopia japonica*, as follows: *"any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow [….] shall be guilty of an offence."*

The Third Schedule species, Japanese Knotweed and Himalayan Knotweed *Persicaria wallichii* were recorded at several locations within the study area. The location of this species within the Phase 1 'The Farm', Phase 2 'The Meadows' and are shown in **Figure 1 and Figure 2.** The non-native third schedule species Rhododendron *Rhododendron ponticum* was recorded within the woodland in the Phase 3 'North Fields' site, including the small islands within the artificial pond, as shown in **Figure 3**. The third schedule invasive species Himalayan Balsam *Impatiens glandulifera* was recorded immediately south of the Phase 2 'The Meadows' site boundary. Although not within the proposed development area, it is recommended that this plant be eradicated.

Japanese Knotweed is a member of the Polygonaceae (docks and rhubarb family), native to Japan and northern China. It has however, become widely distributed throughout Europe, North America, Canada, New Zealand and Australia. Himalayan Knotweed which is a closely related species rarely exceeds 1.5m in height while Japanese Knotweed can reach 3m in height. Dispersal typically occurs through rhizome fragments being transported in soil by humans or to a lesser extent, through passive mechanical means such as in floodwaters. Dispersal is also achieved through vegetative reproduction from plant fragments. The plant typically occurs along roadsides, riverbanks and waste ground in Ireland where it forms dense, monotypic stands. Japanese and Himalayan Knotweed cause a range of problems due to prolific and dense growth habit including blocking sight- lines on roads, damage to paving and structures, erosion of riverbanks and flood defence structures, damage to archaeological sites, loss and displacement of native habitats and species.

Rhododendron is an evergreen, acid loving shrub introduced to Ireland in the 18th Century. It can withstand considerable shade and thrives as an understorey species in woodland, though it also tolerates open conditions in suitable acid soils. Its dense tangle of stems can block pathways, smother watercourses and encroach on roadways thereby impinging on sight-lines and reducing the capacity of the road to drying out. The foliage of Rhododendron contains various compounds that appear to have an allelopathic action on other species (inhibiting their growth) which may further inhibit plants from growing within close proximity.

Himalayan balsam (*Impatiens glandulifera*) is an invasive terrestrial plant species that was first introduced in the UK in 1839 as an ornamental garden plant. Since it was introduced, it has spread to most parts of Ireland. Due to the nutrient poor soil and cold temperatures in its home range, the Himalayas, it has adapted to develop thousands of seeds, which are dispersed widely as the ripe seedpods shoot their seeds up to 7m (22ft) away. Due to our warmer climate and nutrient rich soils it has thrived here and became highly invasive. Once established in the catchment of a river the seeds, which can remain viable for two years, are transported further afield by water.

Figure 1. Third schedule invasive species recorded in Phase 1 'The Farm' site boundary | Not to scale

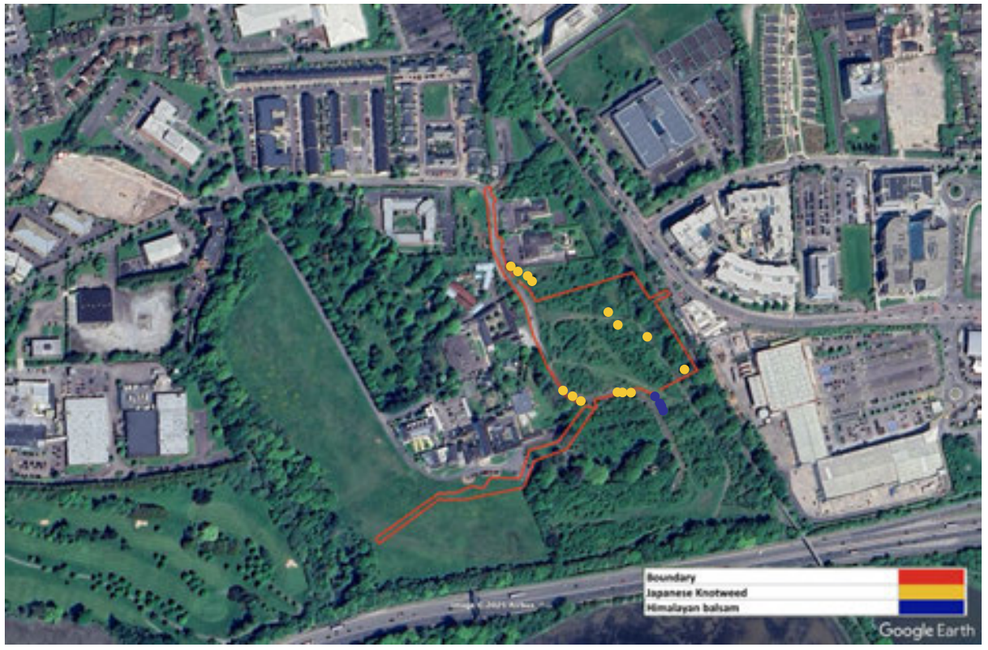


Figure 2. Third schedule species recorded within the Phase 2 'The Farm' site boundary | Not to scale

Figure 3. Third schedule invasive species recorded within the Phase 3 'North Fields' site boundary | Not to scale

Five other invasive species Cherry Laurel *Prunus laurocerasus* Buddleia *Buddleja davidii*, Wild Clematis *Clematis vitalba,* Pheasant bush *Leycesteria formosa* and Winter Heliotrope *Arctostaphylos luciana* were recorded with a scattered distribution throughout the site. These species are not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, their presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011).

Cherry Laurel (*Prunus laurocerasus*) is listed by the National Biodiversity Data Centre as a high risk invasive species. Cherry laurel grows extensively in the area of woodland along the western boundary of Phase 3 'North Fields' and also occurs within the walled garden in Phase 2 'The Farm'. Cherry laurel is a dense thicket forming invasive ever-green shrub of gardens, parks and woodlands from South West Asia. The leaves are thick and laurel-like and are poisonous with cyanide. Its rapid growth and the way it casts an all–year–round dense shade means that it shades out plants from the woodland floor, and generally out–competes less vigorous shrubs and young trees. Like *Rhododendron ponticum* with which it often grows, if unmanaged, it will form almost impenetrable shrubberies or understories in woodland and effectively kill off all other vegetation except the mature trees.

Buddleia, Pheasant bush and Wild Clematis are listed as a medium impact listed species by the NBDC. These species are not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, their presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011). However, the NBDC notes that under the right ecological conditions these species may have an impact on the conservation goals of a European site or impact on a water body achieving good/high ecological status under the Water Framework Directive (Directive 2000/60/EC). Buddleia and Wild Clematis is also included in the NRA *Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads* (NRA 2010) as these species have been shown to have an adverse impact on landscape quality, native biodiversity or infrastructure; and is likely to be encountered during road schemes.

Winter Heliotrope is classified as a low risk invasive species by the NBDC. This species is not included in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011). Therefore, its presence at the site does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011 (S.I. 477 of 2011). Winter Heliotrope is included in the NRA *Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads* (NRA, 2010) as these species have been shown to have an adverse impact on landscape quality, native biodiversity or infrastructure; and are likely to be encountered during road schemes.

3. Japanese and Himalayan Knotweed Management During Construction Phase

This purpose of this plan is to:

- Identify the extent of the infestation on the site
- Ensure further growth and spread of the plant on the site does not occur
- Ensure the plant is not spread to other sites either adjacent to the infested site or through transportation of contaminated soil to another site

- Identify the best method for managing and controlling Japanese Knotweed, Himalayan Knotweed and other invasive species on the site with regard to the proposed site works and construction methods
- Communicate the plan to all site operatives to ensure success of the plan
- Document and record the treatment and management methods carried out on site for future reference, for future site owners and site users and to avoid litigation.

The contractor will employ a suitably qualified ecologist to update the plan prior to the commencement of construction. The updated plan will contain the following:

- Site background including proposed works
- Extent of the Japanese Knotweed and Himalayan Knotweed infestation
- Specific control plan to be put in place
- Site hygiene protocols
- Responsible individuals
- Follow up requirements
- Any other relevant information

3.1 Management Options for Knotweed Species

There are a number of suitable management options to control and prevent the spread of Japanese Knotweed and Himalayan Knotweed. The methodology outlined in this document will be updated, if required, based on an up to date survey of the contaminated area. The proposed management plan will be agreed with Cork City Council prior to the works being carried out. It should be noted that:

- Where any infested material (soil containing Japanese Knotweed or Himalayan Knotweed) is to be taken off site, a licence to transport the material will be required from National Parks and Wildlife Service (NPWS).
- A landfill, which is licensed to accept such material, will be identified to dispose of the excavated material. The landfill site operator will be informed of what the material contains.
- Where herbicide treatment will be used, consideration will be given to the proximity of the herbicide treatment to other vegetation/habitats.

For all management plans, site hygiene protocols will be implemented. These protocols will apply to sites which are infested with Knotweed and those where Knotweed is not growing to prevent contaminated material being brought to site. Site hygiene protocols are outlined in **Section 3.3** below.

3.2 Pre-Construction Survey

Since invasive species spread quickly, prior to the commencement of treatment, a pre-construction survey will be undertaken to identify the extent of invasive species at that time. The survey will be undertaken by a suitably qualified ecologist. This information will be utilised to update the ISMP.

3.3 Site Hygiene at Contaminated Area

Construction equipment, vehicles and footwear may provide a vector for the spread of invasive species. Maintaining site hygiene at all times in an area affected by invasive species is essential to prevent further spread.

The following site hygiene measures will be implemented for the contaminated area:

- Understand the potential extent of the rhizome (root) system underground – up to seven metres horizontally and three metres vertically.
- Where possible, the contaminated area will be avoided and fenced off, or the extent of the rhizomes clearly marked.
- If possible, the use of machinery with tracks will be avoid contaminated areas. Movement of machinery between contaminated and non-contaminated areas must be controlled and adequate power washing measures implemented.
- Areas where contaminated soil is to be stockpiled on site will be clearly identified and marked out.
- Designated entry and exit points will be identified for personnel on foot and for small mobile equipment. A delineated access track, to be maintained free of Japanese Knotweed and Himalayan Knotweed, will be established through the site to minimise the spread of Knotweed species by permitted vehicles accessing the site.
- Vehicles, including footwear and tools, leaving the site will be inspected for any plant material and washed down (using a pressure washer) in a dedicated vehicular wheel wash down facility, which will drain into a contained area within the site. Particular care is required with tracked machines.
- Vehicles used in the transport of contaminated material will be visually checked and washed down into a contained area before being used for any other work, either in the same area or on a different site.
- Only vehicles required for essential works including site investigation works will be brought on site and the number of visits minimised as much as practicable.
- Material gathered in the dedicated wash down contained areas will be appropriately disposed of off-site.
- For any subsoil or topsoil entering the site, the supplier will be required to provide an assurance that it is free of Japanese Knotweed and Himalayan Knotweed.

- All site personnel will be made aware of measures to be taken and will be informed of the requirements of the ISMP.
- Site hygiene signage, in relation to the management of invasive species, will be erected.

3.4 Management Options

In addition to the possible advance treatment works and pre-construction survey, when the works areas become available to the contractor for enabling works, areas identified as requiring specific invasive species treatment will be demarcated and the designated control measures implemented at the earliest possible stage to reduce the risk of spread along the proposed scheme or beyond the land take.

There are a number of management options that may be implemented to control and prevent the spread of invasive species. These are presented in the sections below.

Those involved in the application of herbicides/pesticides will be competent to do so and, consequently, will have sufficient training, experience and knowledge in the area of herbicides/pesticides application.

All staff involved in the application of herbicides/pesticides will have received appropriate training, which may include achieving competency certification in the safe use of herbicides/pesticides through a National Proficiency Tests Council registered assessment centre or achieving an appropriate FETAC award in this area.

It is likely that chemical treatment, as described in **Section 3.5** will be the most suitable method for the identified invasive species.

3.5 Chemical Treatment

The control of Japanese Knotweed and Himalayan Knotweed will require the use of herbicides, which can pose a risk to human health, to non-target plants or to wildlife. In order to ensure the safety of herbicide applicators and of other public users of the site, it is essential that a competent and qualified person carries out the herbicide treatment. A qualified and experienced contractor will be employed to carry out all treatment work.

The contractor will follow the detailed recommendations of the following documents for the control of invasive species and noxious weeds:

Chapter 7 and Appendix 3 of the TII Publication: The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (NRA, 2010)

Best Practice Management Guidelines for Japanese Knotweed (Invasive Species Ireland, 2015)

Circular Letter NPWS 2/08 Use of Herbicide Spray on Vegetated Road Verges (National Parks and Wildlife Service 2008)

These documents include measures to aid the identification of relevant species, with details for the timing, chemicals and methodology for chemical control, and for measures to avoid environmental damage during the use of herbicides.

Chemical treatment involves the application of an herbicide to invasive species plant such as Japanese Knotweed stands without any excavation or removal of the plant material. The preferred types of herbicides to be used in the treatment of Knotweed are Glyphosate and 2,4-D Amine.

If herbicide is applied as the treatment option, it may need to be reapplied for up to five years after the first application to ensure the plant control measures have been effective.

Glyphosate is non-persistent and can be used near water but it is not selective (i.e. it is a broad spectrum chemical and will impact all plant species) whereas 2,4-D Amine can be persistent for up to one month, and can also be used near water but is more selective on certain plants. The selection of chemical by the contractor and supervising ecologist will depend on seasonal factors, site conditions, proximity to water, surrounding habitats etc.

The most effective time to apply Glyphosate is from July to September (or before cold weather causes leaves to discolour and fall). The majority of herbicides are not effective during the winter dormant stage because they require living foliage to take up the active ingredient.

Reapplication rates will depend on site specific considerations including the extent of the infestation, its location, and the time of year treatment commences. Details of the proposed chemical treatment plan will be included in the updated ISMP based the proposed work programme.

Foliar treatment (spraying) is usually applied with a sprayer such as a knapsack sprayer or a larger spray system. It is important to use a treatment dye to identify clearly all areas treated. Foliar treatment is an efficient way to treat large monocultures of invasive plants, or to spot-treat individual plants that are difficult to remove mechanically such as Japanese Knotweed.

In the case of Knotweed, depending on weather and temperatures in the days following the initial treatment, and to ensure optimal uptake of herbicide into the rhizome system, a second similar treatment will be required usually within ten days, before the internal vascular system is no longer capable of translocating the herbicide to the root system.

While the upper surface of the leaves will be easier to treat, it is also important to treat the leaf under surface as Knotweed possesses many stomata openings on the leaf under surface. Dead stems can be cut, removed and burned on/off site in accordance with the relevant legislation.

The stem injection method is sometimes used for Japanese Knotweed control. This treatment requires a higher concentration of the active ingredient than is used in foliar applications. It involves the use of a specialist herbicide injection tool whereby the injection tool injects the herbicide directly into each of the canes approximately 20-30cms from the base of each cane (between the 1st and 2nd nodule).

Subsequently approximately 10 mL of herbicide mix is injected into each cane at a ratio of 5:1 through the use of a specialist stem injection tool. The application of glyphosate-based products by injection is most effective when applied in the early Autumn (mid to late Sept). Regrowth will occur in subsequent years, albeit much less vigorously, which will require follow up treatment at the appropriate time of year. Spot treatment will be required each year until no regrowth is observed.

In order to ensure that the use of herbicides does not contravene legislation, the contractor must comply with Circular Letter NPWS 2/08 *Use of Herbicide Spray on Vegetated Road Verges* from the National Parks and Wildlife Service dealing with the application on to non-target areas.

3.6 Excavation and Chemical Treatment On-Site

This option employs both physical and chemical methods of treatment. This method is employed in situations where treatment of invasive species, in particular Knotweed, is required to be completed in a relatively short timeframe. Generally, digging up the rhizomes and re-cultivating it stimulates plant growth and will result in more successful herbicide application and management.

In summary, this management method requires cutting and killing of the surface plant. The cut material must be left on top of plastic sheeting until dried out and subsequently monitored for any sign of regrowth. Storage of cut material should not take place within flood risk zone of a river. The cut material should not be placed in a green waste recycling bin. Once dried out, the material should be burned on site in accordance with the relevant legislation. The surface of the affected area should be raked with tines to remove crowns and surface material, and in order to break up the rhizomes, bringing them to the surface, which will stimulate leaf production. This will make the plant more vulnerable to herbicide treatment. The more rhizomes that are brought to the surface, the more growth will occur, allowing for a more successful treatment. An excavator can be used to scrape the surface crowns and rhizomes into a pile and then to cultivate the ground to stimulate rhizomes to produce a higher density of stems for treatment. Reapplication of herbicide may be required for up to five years after initially application, subject to the site-specific management plan.

3.7 Excavation and burial

Excavated material containing Knotweed can also be buried on site. This will require burying the material at a depth of at least five metres. The contaminated material must be covered with a root barrier membrane before being backfilled with topsoil, or other, suitable fill material. The manufacturer's guarantee is required that the membrane will stay intact for at least 50 years. An accurate map and record of the location of the burial site, to prevent any future accidental disturbance, is required, and future owners must be informed of its position. If soil containing Japanese Knotweed is stockpiled, the material must be stored in a manner that will not harm health or the environment. The stockpile should be on an area of the site that will remain undisturbed. The area should be clearly fenced and marked with warning signs, and the stockpile should be regularly treated with herbicide to prevent any regrowth or re-infestation.

As a precaution, the stockpiled material should be laid on a root barrier membrane and covered to avoid contaminating the site further. The contractor must also comply with all waste legislation.

3.8 Excavation and root barrier cell method

Excavated material containing Knotweed can also be buried on site within a root barrier membrane cell. The procedure is similar to that described in **Section 3.7** above.

This method will require burying the material at a depth of at least two metres. The contaminated material must be placed in a contained cell formed by a root barrier membrane before being backfilled with topsoil, or other, suitable fill material. The manufacturer's guarantee is required that the membrane will stay intact for at least 50 years. The method for stockpiling prior to burial would be as described as above. The contractor must also comply with all waste legislation.

3.9 Excavation and bund method

Where there is not sufficient depth on a site excavated material can be placed in a structured bund. The bund will comprise a raised area above ground level or a shallow excavation, no more than 0.5m deep, and lined with a root barrier membrane. The manufacturer's guarantee is required that the membrane will stay intact for at least 50 years. This method of treatment can also be used where Knotweed material needs to be moved from a location and there is another area of the site available to contain it.

The aim of this method is to concentrate the rhizome material into the upper surface of the bund, where it will grow and be controlled by herbicide. If the rhizome is buried deep, it will become dormant when inside the bund and regrow when the apparently clean soil is used for landscaping on the site. The bund location needs to be clearly marked by warning signs and protected from potential accidental damage. Reapplication of herbicide may be required for up to five years after the initial application, subject to the site-specific management plan.

The appointed contractor must comply with waste legislation if this method is to be considered.

3.10 Excavation and removal from site

Where the above treatment options are not possible because the site is too small to contain excavated material, or too shallow for burial, or where there is a lack of space or where the infestation simply cannot be avoided by the construction works, removal of excavated material may be the only option. If any invasive species plant material is collected (e.g. by hand-pulling or mowing), it is important that its disposal will not lead to a risk of further spread. Where there are small amounts of Knotweed material to be removed it is possible to double bag the material and send to a licenced waste facility for disposal. Where the amount of material is larger in volume, it will be necessary to haul it from site to a suitably licenced waste facility.

Invasive species material, particularly roots, flower heads or seeds, must be disposed of at licensed waste facilities appropriately buried, or incinerated in compliance with the relevant legislation. Disposal must be carried out in accordance with the relevant waste management legislation. Invasive species plant material or soil containing residual herbicides may be classified as either 'hazardous waste' or 'non-hazardous waste' under the terms of the Waste Management Acts, and both categories may require special disposal procedures or permissions. If the material has been treated with a persistent herbicide, the excavated material must be classified as hazardous waste and must be disposed of to a hazardous waste facility. Advice would need to be sought from a suitably qualified waste expert regarding the classification of the waste and the suitability of different disposal measures.

The movement of invasive plant material requires a licence from the NPWS under Section 49 of the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended).

3.11 Outline methodology

It is proposed that treatment commences immediately and that the following site hygiene protocols will be put in place to prevent inadvertent spread of plant fragments.

1. Prior to the commencement treatment the development area will be resurveyed to accurately assess any changes in distribution in the intervening period.

2. All stands of Japanese Knotweed will be clearly delineated with hazard tape in a manner visible to machine operators prior to the commencement of works. This zone will extend 7m from the parent plant as roots can extend to this distance.

3. Appropriate signage will be put in place to deter any entrance by people or machinery into the areas within which the Japanese Knotweed JKW is growing.

4. Prior notification will be given to all employees that the fenced zone within 7m of the parent plant is off limits to vehicles and no ground excavation will take place. No aggregates can be removed from this area and no reinstatement will take place until the treatment programme is complete.

6. If vehicles enter this zone a specialised wash down area will be created for machinery and footwear. All machinery and equipment (including footwear) will be power washed prior to leaving the contaminated works area within this wash down area. They should also be visually checked for clods of soil, bits of vegetation etc. and particular care is required with tracked machinery.

7. The treatment programme will be carried out by a suitably qualified person who has experience of treating invasive species and will be carried out in line with the herbicide manufacturer's instructions. A five-year monitoring programme will be put in place to ensure that the herbicide has been successful.

4. Buddleia Management During Construction Phase

As noted in **Section 2** of this report, there is no statutory obligation to remove Buddleia. However, should it be concluded that Buddleia at the proposed development site should be removed, the following treatment methods are recommended.

Buddleia is straightforward to control using a mixture of mechanical removal and herbicide treatment.

Buddleia is a plant that favours disturbed sites, physical grubbing of plants can provide ideal conditions for the germination of seeds. Therefore, care needs to be taken to ensure re-vegetation of controlled areas is undertaken swiftly. The branches of Buddleia are capable of rooting as cuttings, so care should also be taken to ensure material is disposed of in a manner to avoid this risk. Site hygiene measures outlined is **Section 3.3** should be implemented where relevant.

As mature plants occur within the proposed works area, the preferred method of treatment is cutting back to a basal stump or grubbing out followed by chemical treatment.z Herbicide applications will take into account sensitive receptors such as watercourses and locally important habitats such as woodland and must only be applied in line with manufacturers recommendations.

Recommended practice for the application of herbicides requires cutting back of plants to a basal stump during active growth (late spring to early summer) which is then treated (brushed on) immediately with a systemic weed killer mix (Starr *et al*, 2003). Foliar application of triclopyr or glyphosate may be adequate for limited infestations of younger plants but should be followed up at 6 monthly interval until the supervising ecologist can certify that the plant is no longer extant within the works area.

5. Wild Clematis

As noted in **Section 2** of this report, there is no statutory obligation to remove Wild Clematis. However, should it be concluded that Wild Clematis at the proposed development site should be removed, the following treatment methods are recommended.

Wild Clematis is straightforward to control using a mixture of mechanical removal and herbicide treatment. Alternative methods of control are discussed below.

This species can be controlled by both mechanical control and herbicides, though typically its control relies on a combination of both i.e., cut-stump application.

Small seedlings can be readily pulled by hand. Larger stems have to be cut, the roots grubbed out and the material placed off the ground so it cannot take root again.

A number of chemicals have been used effectively against Wild Clematis in New Zealand, including glyphosate, though control invariably takes more than one year (New Zealand Department of Conservation 2005). Control should be undertaken during active growth. For mature plants, the vines should be cut back to ground level or waist height in winter or spring and the subsequent re- growth can be then foliar sprayed. This method will avoid impacting on the host plant the vine may be covering.

For larger specimens, the plant can be cut at the base with a straight horizontal cut. Herbicide is then applied immediately to the wound with a paint brush, eye dropper or small squeeze bottle. On larger stems it is only necessary to wipe herbicide around the outer rim of the cut. The plants should be left in situ until they are dead. Where plants are not killed in a single application, wait until re growth before re spraying.

Triclopyr can also be used as a foliar spray or as a spot treatment. This should be applied in summer during active growth before senescence, when it is not very hot or during drought. Following control, regular monitoring will be required with appropriate follow-up to deal with re- growth or new seedling germination over a period of 2–3 years.

6. Winter Heliotrope

As noted in **Section 2** of this report, there is no statutory obligation to remove Winter Heliotrope. Winter heliotrope *(Petasites fragrans)*, a member of the Asteraceae family, is a low-growing herbaceous plant originating in North Africa. It is established widely in Ireland being frequent along roadsides, hedgerows, woodland edges and waste ground. As apparently only the male plant that is present in Ireland, its spread is confined to vegetative means.

6.1 Physical Control

Due to the extensive rhizome network, physical removal of winter heliotrope is really only practical on a limited scale. Where mechanical means can be employed, it should be possible to deal with larger infestations but due to the potential for regeneration from fragments of roots, it may be best to tackle its control using a combination of excavation with follow-up treatment by herbicides. As with other plants with the potential to spread from small root fragments, disposal of material should be undertaken with due caution to prevent accidental spread of the plant. Other means of disposal include burial of material at a depth of at least 2m, incineration or disposal to licensed landfill. There is no evidence that the material would withstand composting though this approach would probably only be suitable for limited infestations.

6.2 Chemical Control

An application of a glyphosate-based herbicide after flowering in February to March is recommended by Cornwall Nature Reserves (2008), though the Royal Horticultural Society (2008b) recommends spraying in mid- summer or later but before the foliage begins to die back.

7. Cherry Laurel

For all sites, the following six steps can be implemented.

1. Resurvey to ensure there is up to date survey data.

2. Note the age, condition and previous treatments at the site.

3. Areas should be prioritised. It may be easier to clear less heavily infested areas to begin with or sites where seed production has not yet occurred. Also, ideally work with prevailing wind direction, rather than against it, to help minimise seed dispersal into recently cleared areas.

4. Create suitable conditions for the recovery of native ground flora. This will reduce open areas for recolonisation.

5. Develop a Management Plan including timeframes for planned clearance and repeated treatments.

6. Follow-up work will be necessary to ensure that any small plants and seedlings have not been missed.

Treatment programmes can be divided into 3 main stages: initial removal, control of stems and roots, and follow up. The following treatment options have been widely tested and measured for effectiveness across Ireland. In almost all cases, failures can be accredited to poor application of a particular technique and/or logistical difficulties, rather than the control method itself. Care should be taken when embarking on a control programme and resources should be identified and allocated for repeated treatments.

Cut and remove stems by hand or chainsaw, cutting as close to the ground as possible to remove above ground growth. Chip or remove the cut material from the area to allow for effective follow-up work and prevent regrowth. Chipped material can provide good weed barrier around ornamental garden areas. Flailing has also been effectively used in Ireland to treat young or immature growth. Although not suitable on all sites and locations, especially steeply sloping or wet sites, it is very effective as it breaks up woody stems upon contact.

The removal of above ground growth will not prevent regrowth as Cherry Laurel will regrow from cut stems and stumps. There are four recommended methods to achieve successful management after the initial cut and removal:

1. Digging the stumps out. The effectiveness of this technique is increased by removing all viable roots. This can be done manually or with a tractor and plough. To avoid regrowth, stumps should be turned upside down and soil should be brushed off roots.

2. Direct stump treatment by painting or spot spraying freshly cut low stumps with a herbicide immediately after been cut. Glyphosate (20% solution), tryclopyr (8% solution) or ammonium sulphate (40% solution) are known to be effective during suitable weather conditions i.e. dry weather. The herbicide concentrations used and timings of applications vary according to which chemical is used. Use of a vegetable dye is recommended to mark treated stumps and all stumps should be targeted. A handheld applicator will help avoid spray drift onto surrounding non-target species. Always read the label and follow the manufacturers guidelines when using herbicides. Remember that using

3. A variation on the stump treatment method is stem injection, using a ‘drill and drop’ methodology, whereby, if the main stem is cut and is large enough for a hole to be drilled into it, the hole can be used to facilitate the targeted application of glyphosate (25% solution).

4. Stump regrowth and seedlings can be effectively killed by spraying regrowth with a suitable herbicide, usually glyphosate. Best practice spraying protocols should be carefully followed. General broadcast spraying is not as effective as stump spot treatment and has the potential to impact on surrounding non-target species. Cherry Laurel leaves are thick and waxy. For

herbicide treatment to be effective each individual leaf needs be thoroughly wetted with herbicide to kill the plant.

8. Rhododendron

Under the right ecological condition, Rhododendron can become highly invasive and once rhododendron has invaded an area, few native plants survive. This species causes severe ecological issues. Rhododendron can regenerate via seeds, suckers or rootlets. It forms extensive dense thickets which cast a very deep shade, leading in woodland to loss of ground flora, epiphytic bryophytes and lichens, modifying the fauna and preventing regeneration of trees. In addition to the effect of shade, it may produce biochemicals which can affect other plants, inhibiting the germination or seedling establishment of other species. There is also evidence for the prevention of mycorrhizal development in the roots of seedlings of competing plant species. R. ponticum is identified as a serious threat to upland oakwood. It is also identified as a threat for several lower plants and fungi including *Acrobolbus wilsonii, Arthothelium macounii* and *Lejeunea mandonii.*

To prevent Rhododendron or other invasive species being spread around the site or being inadvertently being brought into the site, the contractor will be required to inspect vehicles before using them on site. Herbicides will only be used in line with manufacturers recommendations and shall take into account the need to avoid impacts on aquatic receptors or adjoining habitats. It is noted that this species has colonised small islands within the artificial pond and this creates particular issues in relation to access and use of herbicides

A survey for invasive species will be carried out prior to the commencement of works. This is to confirm the extent of infestations as identified by invasive species surveys to date, and to determine whether any new infestations have established in the intervening period.

Prior notification will be given to all contractors that parts of the site are contaminated with Rhododendron and that they must adhere to this protocol to avoid the spread of the plant within and more importantly, outside of the works area. This includes any site investigation works in advance of commencement of excavation works.

All stands of Rhododendron will be clearly delineated with hazard tape in a manner visible to machine operators prior to the commencement of works.

Appropriate signage will be put in place to deter any entrance by people or machinery into the areas within which the Rhododendron is growing.

Only vehicles required for the works within the contaminated works area should be brought on site and the number of visits minimised as much as practicable. Vehicle movements within this area should be kept a minimum. A specialised wash down area will be created for machinery and footwear. All machinery and equipment (including footwear) should be power washed prior to leaving the contaminated works area within this wash down area. They should also be visually checked for clods of soil, bits of vegetation etc. and particular care is required with tracked machinery. This wash down area will be located in close proximity to existing stands and the wash down area will be included in the post-works treatment programme for Rhododendron.

If and where contaminated soil or heaps of high-risk invasive species (i.e. Rhododendron) are to be stockpiled, the area will be clearly marked out on site. These areas will not be within 20m of any watercourse or flood zone.

8.1 Management of Rhododendron

The eradication of rhododendron from an infested habitat can only be carried out effectively by understanding the ecology of the species and by strategically planning the clearance work. In order to rid a habitat of rhododendron, a number of steps should be followed, including cutting all standing rhododendron and killing the stumps by uprooting or herbicide treatment. All habitats cleared of rhododendron must be regularly and systematically re-visited to remove any seedlings that have germinated and become established. Appropriate guidelines are provided in *The Control of Rhododendron in Native Woodlands (Native Woodland Scheme Information Note No. 3)* and Higgins, G.T. (2008) *Rhododendron ponticum: A guide to management on nature conservation sites. Irish Wildlife Manuals, No. 33.*

8.2 Cutting and removal

The first operation in clearing rhododendron is the cutting of individual stems with hand or chainsaws. Stems will be cut as close to the ground as possible. The cut material will be removed from the area to allow for effective follow-up work. Burning under the supervision of personnel with fire experience is another option. Rhododendron material can be burnt green immediately after being cut. Fires should be carefully located so as not to damage any trees or other vegetation close by, and old tyres or diesel should not be used. If burning is not an immediate option, the cut material can be piled neatly outside the treated area, allowing them to be dismantled easily to facilitate burning at a later stage (ideally 1-2 years later).

Where burning is envisaged, contact will be made with the Local Authority to obtain permission. Flailing is another method of rhododendron clearance. This involves the flailing of the thickets down to ground level, using a mechanical flail head mounted on a tracked machine. Although not suitable on all sites, especially those that are steeply sloping or very wet, it is a very effective as it mulches the material upon contact.

8.3 Killing Rhododendron

Some method of killing must be used as rhododendron invariably grows back vigorously when cut. The following approaches can be considered:

8.3.1 Digging out

Digging the stumps out of the ground is an effective way of killing rhododendron. Its effectiveness is maximized by removing all viable roots. Digging out can be carried out manually or, if the terrain allows, by machine (e.g. a tractor and chain). To prevent regrowth, as much soil as possible should be knocked off the root system, and the stumps should be turned upside down to expose the roots to the air and to allow the rain to wash off any remaining soil. Stumps that are dug out should be burnt along with the cut material.

This method avoids any use of herbicides. However, the impact to tree root systems and the potential for soil compaction and disturbance caused by the use of machinery in certain habitats means that this option will only be implemented under ecological supervision to minimise inadvertent disturbance of habitats.

8.3.2 Direct stump treatment

Rhododendron kill can be achieved by direct stump treatment, whereby freshly cut stumps are painted or spot sprayed with a herbicide solution. Ideally this should be carried out when rain is not imminent, to avoid the solution from being washed off. Stems are cut as close to the ground as possible, and the fresh stump surfaces treated with herbicide immediately, i.e. within minutes. A vegetable dye is used to clearly identify which stumps have been treated. Painting of stumps with glyphosate solutions (25-100%) was found to be 100% effective when carried out between May and March at an experimental site in Scotland (Tabbush and Williamson, 1987). This method is regarded as being most effective outside the time of spring sap flow. The following are herbicides (including application rates, methods and timing) used in the control of rhododendron by stump treatment (after Willoughby and Dewar (1995)).

- Glyphosate: Apply 'Roundup' in a 20% solution in water to all freshly cut stump surfaces using one of the following: a knapsack sprayer at low pressure; a forestry spot gun fitted with a solid stream nozzle; a cleaning saw fitted with a suitable spray attachment; or a paint brush. Best results can be obtained during the period October to February.

- Tryclopyr: Apply 'Garlon 4' in an 8% solution in water using one of the following: a knapsack sprayer at low pressure; a forestry spot gun fitted with a solid stream nozzle; a cleaning saw fitted with a suitable spray attachment; or a paint brush. Apply at any time between cutting and the appearance of new growth.

- Ammonium sulphamate: Apply as a 40% solution between April and September. Optimum control resulting from treatments applied between June and September. Surfactant additives are not appropriate for stump application. It is important to ensure that all cut surfaces are treated. In Ireland, trials in Killarney using stump treatment resulted in extremely successful kill rates among a range of plant sizes throughout all months of the year. Chemical concentrations from 10% to 20% have been used effectively and further trials are ongoing.

A major advantage of stump treatment is that all initial clearance work can be carried out in a single sweep. Also, as the application of the herbicide is carried out with a handheld applicator, spray drift is avoided and the impact to the surrounding non-target area is minimal. In addition, small volumes of herbicide are used. Although stump treatments can result in total kill, regrowth from the cut stumps can occur. This regrowth is usually slow and stunted. Carefully timed foliar application of herbicide to the regrowth will subsequently achieve full kill.

8.3.3 Spraying of regrowth and large seedlings

Stumps and large seedlings (less than 1.5 m in height) can be effectively killed by spraying the regrowth with a suitable herbicide. Success is dependent on the plants being dry at the time of herbicide application and remaining dry for a sufficient time thereafter to allow the herbicide to be absorbed into the plant (at least 6 hours, preferably longer). The addition of a surfactant (e.g. Mixture B) can increase the rate of herbicide absorption and reduce the amount of 'dry-time' required after foliar herbicide application. Surfactants are often more environmentally damaging than the herbicides themselves and must be used with great care, especially adjacent to aquatic habitats. Spraying should be carried out in near windless conditions, to maximise herbicide contact and absorbance of the chemical into the plant. Conversely, spraying in windy conditions should be avoided at all costs, as this will lead to herbicide drift, resulting in 'collateral damage' which will kill nearby native flora, including herbaceous species and young regenerating trees. This delays the establishment of a ground cover and facilitates further rhododendron establishment.

It is important to ensure at all times that chemical solutions do not enter watercourses, as this can have a severe impact on the aquatic habitat and on aquatic life. At all times, adhere to best practice regarding safety and environmental protection, as set out in the manufacturer's guidelines, Ward (1998), and the Forest Service Forestry and Water Quality Guidelines and Forest Protection Guidelines. As spraying is not 100% effective, some plants may require two or more applications before they are killed. Since cut stumps generally produce multiple shoots of regrowth, delaying the spraying for more than three years after the initial stump cutting can actually result in the infestation becoming even more severe. At this stage, the regrowth is likely to be too tall to be sprayed effectively, forming dense impenetrable thickets. Regrowth is also likely to flower more vigorously than naturally regenerated rhododendron.

8.3.4 Stem injection

Stem injection, using the 'drill and drop' method (Edwards, 2006), can be used for the control of established rhododendron bushes, where access to the main stem is possible and where the stem is large enough for a hole to be drilled into it. One of the main advantages of this technique is that it facilitates the controlled application of herbicide to target plants, thereby reducing damage to other flora adjacent to treated bushes. It is a particularly useful method on difficult, sloping terrain, where other methods may be impractical.

A handheld cordless drill with several re-chargeable batteries and a spot gun are the only tools required. A 25% solution of glyphosate (i.e. 1:3 mix with water) is recommended. No additives are required. Applications during March, April and October have been successful in giving complete control of target bushes. Treated bushes can be left standing on site to rot. However, bear in mind that standing, dead rhododendron may persist for 10 to 15 years, is unsightly and can inhibit access to the woodland for management operations. Therefore, it may be better to cut and remove the treated bushes at a later date.

The effectiveness of control should be assessed initially every 12 months following the treatment. The main steps involved in stem injection are as follows.

1. Stems to be treated should be greater than 3 cm in diameter. In order to maximise the potential of killing the entire plant, choose a position on the stem as close to the main root system as possible, and at least below the lowest fork.

2. Drill as vertically as possible into the stem to create a hole that will hold the herbicide solution. The drill bit used should be 11-16 mm in diameter, depending on the stem diameter. There is no upper limit to the size of stem that can be treated.

3. Apply the herbicide to the hole immediately after drilling. The recommended amount is 2ml of herbicide solution per stem. Do not allow the herbicide to overflow from the hole. The use of a forestry spot gun with a calibrated 10ml chamber is recommended, as this allows for the accurate application of a calibrated 2ml of

herbicide per hole.

4. It is recommended that each plant be marked immediately after treatment, to track progress. Treated plants can be marked with a spray of coloured paint or by attaching coloured biodegradable tape.

5. Applications can be made in light rain, provided that rainwater is not running down the stem into the application hole and washing the herbicide solution out into the surrounding area.

6. Bush death should occur between 9 and 31 months, depending on application date and bush size.

8.3.5 Outline methodology Rhododendron

1. The exact treatment details will be outlined in a detailed management plant prepared by the treatment contractor and supervising ecologist will be finalized prior to the commencement of treatment. The following principles/guidelines will be implemented.

2. The entire site and adjacent area will be surveyed and the level of infestation assessed and mapped prior to the commencement of treatment works.

3. The age, condition and any previous treatments of all stands will be noted and mapped.

4. Areas to be treated will be prioritized. However, the objective is complete removal within the applicant's landholding.

5. A Rhododendron Management Plan will be prepared by the contractor with input from the supervising ecologist. The plan will encompass the entire site and include projections over a suitable timeframe. All work to be carried out in the area should be mapped and clearly dated and detailed in an accompanying schedule, along with a timeframe for follow-up work.

6. Treatment options will follow the following guideline methods:

- Young plants - single stemmed, typically < 10 years old & up to 1m tall
- These plants will be cut off as close to the ground as possible (with secateurs or pruning saw) and the stem treated with herbicide.
- Plants may be pulled by hand, if necessary, loosening the adjacent soil with a mattock or pick axe.
- Foliage will be treated with herbicide.

Isolated plants, typically >10 years old

- The plant may be cut down to the stump, as low to the ground as possible and the stump treated with herbicide.
- If access to the base of the main stems is possible, stem application of herbicide may be used.

- If low growing enough (usually less than 1.5m) foliage may be sprayed with herbicide.
- The plant may be cut to the ground/low stump and regrowth later treated with herbicide.
- The plants may be cut to c. 40cm above ground, each stem broken off from the root and the root treated with herbicide (New method under trial, see p. 28).
- If chemical treatments are not an option, the only alternative method of killing to rootstock is stump extraction. This may be done manually (using a mattock) or mechanically.

Mature stands of dense rhododendron

- The plant may be cut down to the stump, as low to the ground as possible and the stump may be treated with herbicide.
- If access to the base of the main stems is possible, stem application of herbicide may be used.
- The plant may be cut to the ground/low stump and regrowth later (after c. 18 months) treated with herbicide.
- The plant may be cut to the ground/low stump and regrowth later knocked off and the stump collar treated with herbicide.
- If chemical treatments are not an option, the only alternative method of killing the rootstock is stump extraction. This may be done manually (using a mattock) or mechanically, but the use of heavy machinery on nature conservation sites is often inadvisable.

7. In all sites, follow-up work will be necessary to ensure that any small plants or seedlings which were either missed on the previous visit or have entered the site subsequently from adjacent seed sources, are removed before they reach the flowering age (10-12 years). Ideally remove them when they are c. 0.5 m tall. At this stage, they are more easily seen, and any young seedlings likely to die naturally through desiccation will have done so. The systematic checking for reinfestation is necessary if the area is to be maintained free of seed-producing rhododendron. Also, reinfestation brought about by poor follow-up will negate the considerable time and cost invested in the initial clearance.

8. The use of track mounted machinery can offer a relatively fast approach to rhododendron clearance by this method, however there are particular issues in relation to access to the islands. A fork or bucket can extract either entire standing plants or stumps. This method is not suitable where vehicular access to a site is very difficult, where very steep slopes require clearance and where terrain (e.g. boulders) hinders the movement of machinery around the clearance site. In addition, the disturbance caused by heavy machinery to soil and to tree roots requires consideration and there is also potential for damage to standing trees, although a

good operator can often avoid this. Extraction of the rootstock by this method gives good kill, although some regrowth from root fragments may require further treatment. Given that the applicant has access to suitable machinery this is preferred option on areas within the proposed extension area. How usage of this method on areas within the landholding outside the proposed extension area need to be carefully evaluated based on up to date survey results to ensure inadvertent damage of adjacent habitats is minimized.

9. The treatment programme will be carried out by a suitably qualified person who has experience of treating invasive species and will be carried out in line with the herbicide manufacturer's instructions. Site hygiene protocols to prevent spread of this species will be specified by the management plan and will be strictly enforced.

9. Himalayan Balsam

Any Himalayan Balsam within the works will be hand-pulled and bagged prior to the commencement or site works. It will be then placed in a designated area of the site to decay. The seeds are not particularly robust but may survive for 18 months so a two-year programme of control, which will extend beyond the construction period, will be required. All machinery leaving the site will be washed down in a designated wash down area in proximity to the site exit to prevent seeds from being spread outside the site boundary.

If and where contaminated soil or heaps of high-risk invasive species (i.e. Himalayan Balsam) are to be stockpiled, the area will be clearly marked out on site. These areas will preferably not be within 20m of any watercourse or flood zone.

10. Pheasant Bush

As noted in **Section 2** of this report, there is no statutory obligation to remove Pheasant Bush, However, should it be concluded that Pheasant Bush at the proposed development site should be removed, the following treatment methods are recommended.

There are many methods to get rid of Pheasant Bush, but the most efficient way may be by using herbicides. Alternatively plants can be dug out this weed throughout the year.

1. Digging the stumps out. The effectiveness of this technique is increased by removing all viable roots. This can be done manually or with a tractor and plough. To avoid regrowth, stumps should be turned upside down and soil should be brushed off roots.

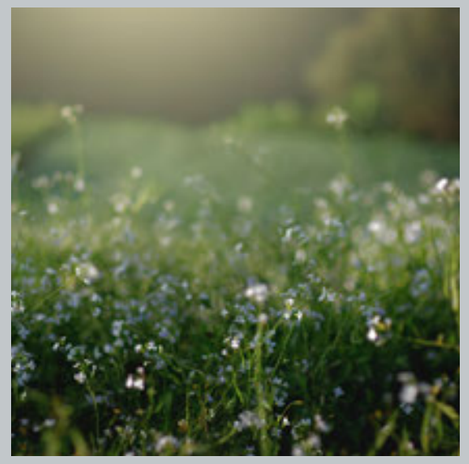
2. Direct stump treatment by painting or spot spraying freshly cut low stumps with a herbicide immediately after been cut. Glyphosate (20% solution), tryclopyr (8% solution) or ammonium sulphate (40% solution) are known to be effective during suitable weather conditions i.e. dry weather. The herbicide concentrations used and timings of applications vary according to which chemical is used. Use of a vegetable dye is recommended to mark treated stumps and all stumps should be targeted. A handheld applicator will help avoid spray drift onto surrounding non-target species. Always read the label and follow the manufacturers guidelines when using herbicides.

11. Conclusions

Two high risk invasive species were recorded within for the Phase 1 'The Farm', Phase 2 'The Meadows' i.e., Japanese and Himalayan Knotweed. No impediment to the removal of these species within the study area, as part of a detailed invasive species management plan, have been identified. Himalayan Balsam, a third schedule species, was recorded just outside the Phase 2 'The Meadows' site boundary.

The non-native third schedule species Rhododendron was recorded within the woodland, including the small islands within the artificial pond, within the Phase 3 'North Fields' site boundary. The location of this species on islands within a water feature creates particular difficulties in terms of access and use of herbicides and this issue will be taken into account when finalising the treatment programme which will be drawn up by the project ecologist in consultation with the nominated contractor.

This outline ISMP will be updated by the supervising ecologist based on up-to-date survey data, prior to the commencement of proposed development.



BESSBOROUGH, CORK

APPENDIX 10

Cultural Heritage

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BESSBOROUGH, CORK

APPENDIX 10

Cultural Heritage

- Appendix 10-1 - General Photographic Record by John Cronin and Associates
- Appendix 10-2 - 2019 Archaeological Test Trenching Report by John Cronin and Associates
- Appendix 10.3 - Historic Building Record prepared by John Cronin and Associates
- Appendix 10.4 - Method Statement Forensic Control prepared by Aidan Harte of Munster Archaeology

- Appendix 10-1 - General Photographic Record by John Cronin and Associates

Appendix 10.2: General Photographic Record

(Note: a detailed photographic record of built environment within The Farm subject lands is provided in Appendix 10.4)

Plate 10.1: Drone view of the Bessboro property from southeast

Plate 10.5: Ground view of the Meadows subject lands, looking southeast

Plate 10.6: Ground view of the Meadows subject lands, looking northwest

Plate 10.7: Area of ground disturbance in the north end of The Meadows subject lands, looking west

Plate 10.8: Existing road on west side of The Meadows subject lands

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Plate 10.23: View of Bessboro House from southwest

Plate 10.22 : View of railway line to east of the Bessboro property

Plate 10.24: View of Bessboro House from southeast showing later buildings

Plate 10.25: Icehouse (RMP CO074-051----) within wooded area in west end of Bessboro property (outside subject lands)

Plate 10.26: View from south of Folly in southeast end of Bessboro property following partial demolition and rebuilding (outside subject lands)

Plate 10.27: View of nun's graveyard on north side of folly (outside subject lands)

- Appendix 10-2 - 2019 Archaeological Test Trenching Report by John Cronin and Associates

JOHN CRONIN & ASSOCIATES
ARCHAEOLOGY | CONSERVATION | HERITAGE | PLANNING

Bessborough, Ballinure Townland, Mahon, County Cork

Archaeological Impact Assessment

Excavation Licence no.: 19E0003
Detection Device: 19R0001

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January 2019

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1. Introduction

John Cronin & Associates were appointed to carry out a programme of archaeological testing ahead of an application for planning permission for development at the site following consultation with City Council Archaeologist, Ciara Brett (Thursday 15th November, 2018). The subject area in a brown field site within the townland of Ballinure, Mahon, Cork, to the northeast of Bessborough House (RMP no. CO074-077----) (**Figure 1**).

The subject site is located *c.*85m to the north of the nun's cemetery at Bessborough. The programme of testing was primarily focused on identifying any possible undocumented burial places or graves within the proposed development site, however, the testing programme concurrently investigated for the presence of unrecorded archaeological features, artefacts or deposits within these areas. An osteoarchaeologist was on-site at all times to examine any revealed human or potential human remains.

Figure 1 *Location of subject site (Source: Google Earth)*

Figure 2 *Outline of subject site (in red) (Source: Google Earth)*

2. Context

The subject site is located within a brown field area to the northeast of Bessborough House (RMP no. CO074-077----). Planning was granted (ref. 0934237) for a nursing home at the subject site in 2010. An archaeological testing condition was attached to the granted planning, however, it appears that the development was abandoned prior to that programme of archaeological testing taking place. Aerial images (**Figure 3**) from 2006 and subsequently show extensive ground disturbance across the entire site. This disturbance appears to relate to construction works in adjoining areas.

The 1st edition 6-inch OS map shows the subject area crossed by a tree lined roadway running from the northern corner to the south (**Figure 5**). A tree lined field boundary is shown running northwest to southeast in the southwest corner of the subject site. The 25-inch OS map shows the Passage railway line defining the site to the east with a band of trees to the west of the railway (**Figure 6**). No other features are shown within the subject site on this map.

Bessborough House is believed to have been built in 1760 as a residence for the Allens, a prominent Cork Quaker family. In 1814 the house and lands were acquired by a Mr J. Spence and changed hands again shortly after to the Bousefield family. In about 1820 the property was bought by Joseph Pike. Of Cromwellian planter origin, the Pikes became a prosperous Quaker family whose business interests included the Cork Steamship Company, Pike's Bank, a drapery store and railway development. Bessborough remained with the Pike family until 1920 when the last of two spinster sisters, Ann Emily Pike, died. The property was sold to the Sacred Heart Order in 1922.

Figure 3 *2006 aerial image showing extent of ground disturbance across the entire site (Source: Google Earth)*

Bessborough House functioned as a Mother and Baby Home from the time of its purchase by the Sacred Heart Order in 1922 through to the 1990s. In total nearly 6000 births are registered at the home between 1929 and 1987. Births prior to 1929 and subsequent to 1987 are believed to have taken place at St. Finbarr's Hospital (Report of the Inter-Departmental Group on Mother and Baby Homes).

The mortality rate for children born at the Bessborough is estimated to have been over 50% for extended periods, especially during the 1940s and 50s (Irish Mirror, 11th August 2013; Examiner, 25th August 2014). While complete records are not available, the mortality rate is believed to have remained high though-out the operation of the home. Estimates for the total number vary but range from several hundred up to about two thousand child deaths during the operation of the home (RTE Prime Time, 17th May 2017; Independent, 25th March 2018).

No complete records of deaths are known to exist for the Bessborough Home and burial records for both mothers and babies who died at Bessborough appear to not have been kept. The deaths of 470 children and 10 women are recorded at the home between 1934 and 1953 but no records of deaths in the subsequent years are known (Examiner, 7th March 2017; Examiner, 19th February 2018).

It is believed that a number of children who died at the home were buried at the 'Angel's Plot', at the nun's cemetery at Bessborough, and it is known that a small number of those who died there were buried in unmarked plots in various Cork city cemeteries (Examiner, 19th February 2018). In May 2018 the Mother and Baby Homes Commission appealed for anyone who has personal knowledge, documentation or other information concerning the burial arrangements and/or burial places of children who died in Bessborough between 1922 and 1998 to come forward. Toni Maguire, a consultant archaeologist who specializes in children's burial grounds (*Cillíní*) and has worked with the Adoptions Rights group in relation to the Mother and Baby Home at Tuam, County Galway, has researched and inspected the Bessborough site and believes that unrecorded burials exist beyond the 'Angel's Plot' (Examiner, July 17th 2014).

Given the large number of children who died while resident in the Bessborough Mother and Baby Home and the fact that no records of burial arrangement and/or burial places of the children survive, the potential exists for unrecorded burials to have taken place within the wider Bessborough landholding, this includes both undeveloped and previously developed areas of the Bessborough landholding.

Inspection prior to testing at the subject site found the area to be overgrown by scrubby growth. The northern portion of this area appeared to containing dumps of construction and waste material, especially at the northeast. Within the southern portion of this area topsoil was evident, indicating that ground disturbance in this part of the site may have been more limited. This area is open to the south and is bound by modern fencing to the north. A modern road cut into the natural level, constructed in the mid-2000s, forms the western limit of this area, with the former Cork, Blackrock and Passage Railway line forming the eastern boundary. Due to the extensive surface disturbance noted above, no discernible archaeological features survive above ground within this area.

Figure 4 *Cork City and eastern suburbs as depicted by George Taylor and Alexander Skinner's Maps of the roads of Ireland in 1778. Bessborough is indicated as "Bisboro" and the proprietor as Allen Esq.*

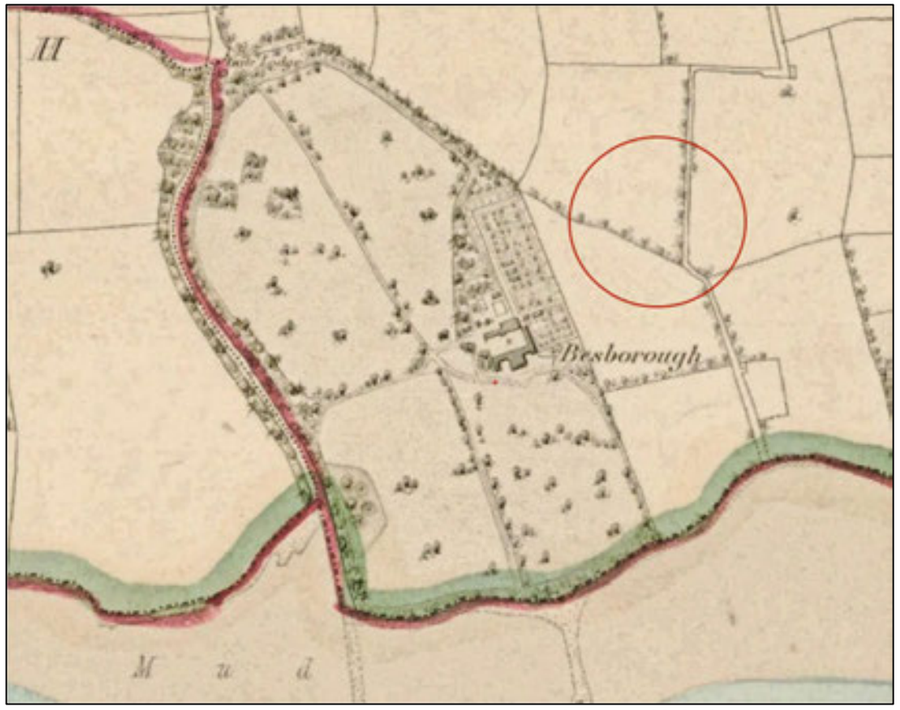

Figure 5 *First edition Ordnance Survey map (Surveyed 1841, published 1845)*

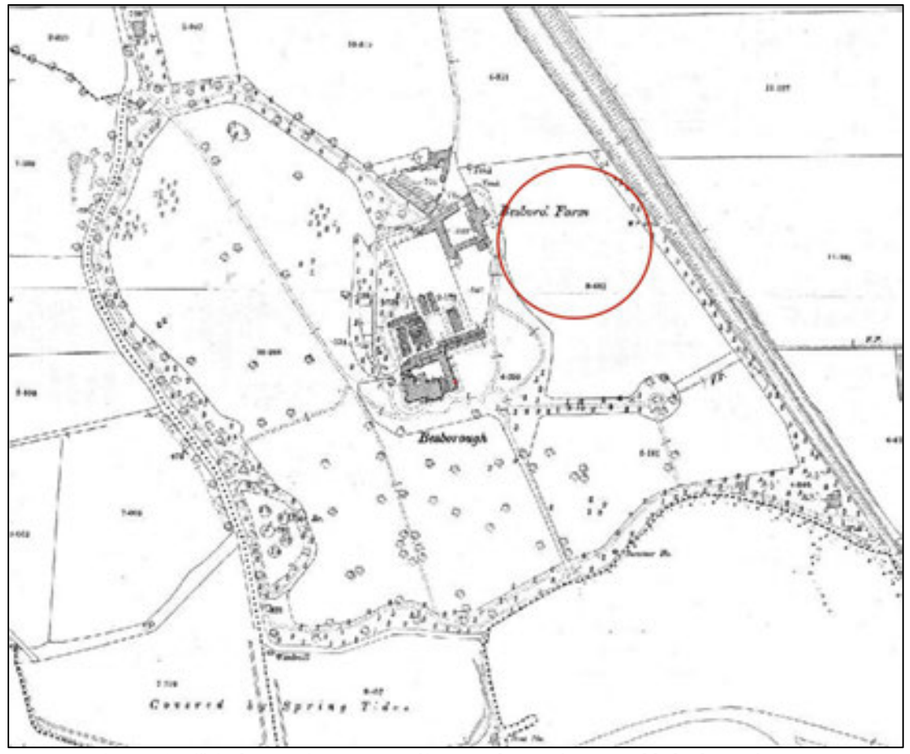

Figure 6 *25" Ordnance Survey Map (Surveyed 1899/1900, published 1901)*

Figure 7 *Aerial image showing subject site in 1951*

The proposed development site is located to the northeast of Bessborough House (RMP no. CO074-077----). The site is also adjacent to the former demesne associated with

Bessborough House. The Archaeological Survey of Ireland lists a further eleven recorded archaeological sites within a c.1km radius of the boundaries of the subject site.

Figure 8 *Location of recorded archaeological sites (yellow points) within c.1km of the subject site. (Source: Department of Culture, Heritage and the Gaeltacht)*

Table 1*: Recorded archaeological sites located within 1km of proposed development site*

SMR No.	*Class*	*Townland*	*ITM Easting*	*ITM Northing*
CO074-050----	*Quarry*	*DUNDANION*	*571214*	*571131*
CO074-051----	*Icehouse*	*BALLINURE (Cork By.)*	*571612*	*570226*
CO074-059----	*House - fortified house*	*MONFIELDSTOWN*	*572552*	*569481*
CO074-063----	*Midden*	*BALLINLOUGH (Cork By.)*	*571218*	*570058*
CO074-068----	*Railway bridge*	*"BALLINURE (Cork By.),MONFIELDSTOWN"*	*572439*	*569873*
CO074-077----	*Country house*	*BALLINURE (Cork By.)*	*571802*	*570287*
CO074-100----	*Country house*	*BALLINURE (Cork By.)*	*571587*	*571529*
CO074-121----	*Railway bridge*	*BALLINURE (Cork By.)*	*571631*	*571041*
CO074-130----	*Excavation - miscellaneous*	*BALLINURE (Cork By.)*	*572344*	*570516*
CO075-022----	*Country house*	*MAHON*	*572818*	*570613*
CO075-045----	*Midden*	*MONFIELDSTOWN*	*572856*	*569585*
CO075-083----	*Excavation - miscellaneous*	*MAHON*	*572826*	*570612*

20 archaeological excavations are recorded as having taken place within the townlands that fall within *c.*1km of the subject site. These excavations have resulting in the identification of sites, deposits and finds dating from the prehistoric through to the modern era, including an area of prehistoric activity within Ballinure townland, excavated under licence 03E0060 (**Appendix II**).

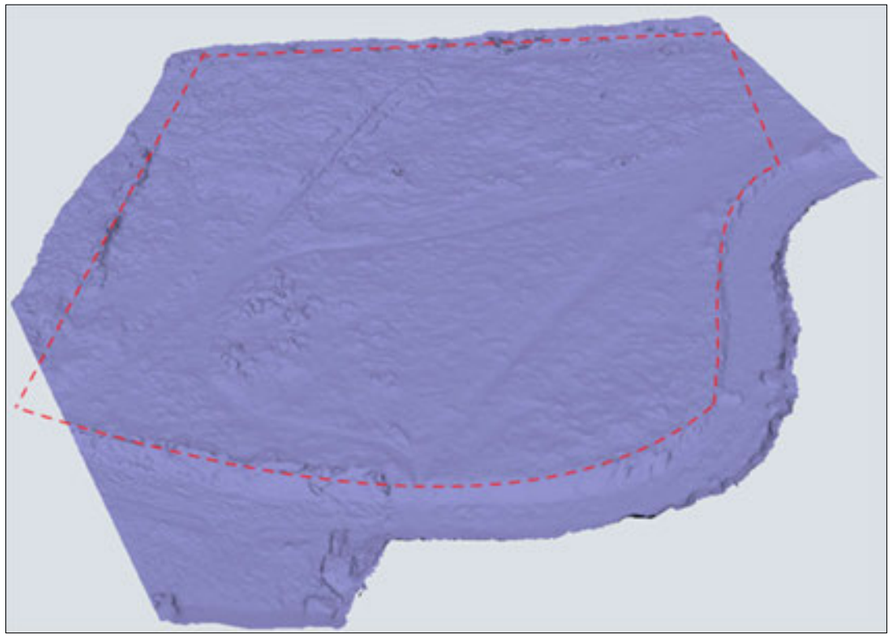

Figure 9 *Digital Surface Model of subject site (approx. outline in red), showing ground disturbance and vegetation cover, looking east*

3. Archaeological test trenching

No surface traces of any potential archaeological features were noted on the footprint of the proposed development during an inspection carried out prior to the test trench investigations.

Figure 10 *Trench layout*

Overview of the testing programme

A total of six test trenches were mechanically excavated across the subject site. Topsoil stripping was carried out by a *c.*5-tonne machine operating with a *c.*1.5m wide, toothless grading bucket. The trenching layout was designed to result in a comprehensive examination of the development areas to be impacted by ground excavations works. A metal detector was utilised during testing under licence (19R0001) and the osteoarchaeologist carried out a targeted sieving programme.

Site investigations revealed a mid-brown, silty topsoil layer across the proposed development site. This was generally *c.*30-40cm deep along the eastern and central portion of the site, and up to *c.*1.2m deep at the west side, where it included up-cast material from the construction of the road to the west. Frequent fragments of modern pottery and occasional fragments of plastic, glass and metal objects, such as drinks cans and machine parts, were noted within the topsoil across the site.

The topsoil overlay an orange/brown silty clay subsoil layer with some areas of red gravelly silty clay at the centre at the north end. The subsoil contained frequent angular stone and occasional rounded boulders.

Descriptions of individual trenches

Trench 1

This was a linear trench measuring *c.*75m in length and extended in a northeast to southwest direction at the north end of the subject site. The eastern end of this trench extended into an area of heavy disturbance and the trench was therefore abandoned *c.*10m short of the proposed east end. A modern track or compound surface of stone and concrete occupied the westernmost *c.*10m of the trench. A series of northeast to southwest *c.*0.4m wide furrows were noted intermittently across the cutting. At the east end dumped waste material and heavy subsurface disturbance was noted. No archaeological features or deposits were identified within this trench.

Trench 2

This *c.*80m long trench extended in a northeast to southwest direction at the north end of the subject site. The eastern end of this trench extended into an area of heavy disturbance and the trench was therefore abandoned *c.*10m short of the proposed east end. The western half of the trench contained *c.*0.2m of topsoil overlying *c.*0.3m of redeposited natural, this in turn overlay *c.*0.4m of topsoil. This was likely the result of dumping excavated material from elsewhere within the site during works in the mid-2000s. A series of northeast to southwest *c.*0.4m wide furrows were noted intermittently across the cutting. At the western end of the trench a *c.*1.8m wide northeast to southwest ditch was noted. This was found to be filled with a grey silt containing occasional rounded stones and large boulders. This cut was *c.*0.7m deep and was orientated on a similar alignment to both the furrows noted in the trench and field boundaries shown on historic mapping. At the east end of the trench dumped waste material and heavy subsurface disturbance was noted. No archaeological features or deposits were identified within this trench.

Trench 3

This *c.*110m long trench extended in a northeast to southwest direction at the centre of the subject site. Topsoil was *c.*0.7m thick at the west end, where it included up-cast material from the construction of a road to the west, and *c.*0.5m thick elsewhere. Subsoil was cut by a series of northeast to southwest *c.*0.4m wide furrows to the east end. No archaeological features or deposits were identified within this trench.

Trench 4

This *c.*110m long trench extended in a northeast to southwest direction at the centre of the subject site. Topsoil within this cutting was between 0.3m and 0.45m thick. A band of compacted natural subsoil was noted near the centre of the trench and appeared to be the result of machines crossing the area. A series of northeast to southwest *c.*0.4m wide, *c.*0.1m deep, U-shaped furrows were noted to the east end of the cutting. No archaeological features or deposits were identified within this trench.

Trench 5

This *c.*110m long trench extended in a northeast to southwest direction at the southern end of the subject site. Topsoil within this cutting was *c.*0.5m thick at the west, where it included up-cast material from the construction of a road to the west, and was *c.*0.3m thick at the east. A series of northeast to southwest *c.*0.4m wide, *c.*0.1m deep, U-shaped furrows were noted to the east end of the cutting. No agricultural cut features were noted

within the western end of the trench, which may indicate that ground levels were reduced in this area. No archaeological features or deposits were identified within this trench.

Trench 6
This *c.*105m long trench extended in a northeast to southwest direction at the southern end of the subject site. Topsoil within this cutting was *c.*0.5m thick at the west, where it included up-cast material from the construction of a road to the west, and was *c.*0.4m thick at the east. No agricultural cut features were noted within this trench, which may indicate that ground levels were reduced in this area. No archaeological features or deposits were identified within this trench.

Summary results of the testing programme
In conclusion, there were no archaeological features or artefacts noted in any of the test trenches excavated on the footprint of the proposed development.

4. Conclusions

While the subject site was evidently subject to significant disturbance in recent years the test trenching undertaken for this assessment identified a number of agricultural features, including ditches and furrows, these were interpreted as modern in origin.

There were no archaeological features or artefacts noted in any of the test trenches excavated on the footprint of the proposed development.

Recommendation
While no archaeological remains or features were encountered within the subject area during testing**, it is recommended that topsoil stripping should be subject to archaeological monitoring**, given the proximity of the site to both Bessborough House and the nun's cemetery.

Appendix 1: Extracts from Photographic Record

Plate 1 *General pre-ex view of subject site, looking south*

Plate 2 *Trench 1, post-ex, looking northeast*

Plate 3 *Modern disturbance within east end of Trench 1, looking southwest*

Plate 4 *Trench 1, post-ex, looking southwest*

Plate 5 *Slot though ditch at west end of Trench 2, looking south (note redeposited natural overlying topsoil)*

Plate 6 *Trench 2, post-ex, looking northeast*

Plate 7 *Trench 2, post-ex, looking southwest*

Plate 8 *Trench 3, post-ex, looking northeast*

Plate 9 *Slot through agricultural furrow within Trench 3*

Plate 10 *Trench 3, post-ex, looking southwest*

Plate 11 *Trench 4, mid-ex, looking northwest*

Plate 12 *Trench 4, post-ex, looking southwest*

Plate 13 *Trench 4, post-ex, looking northeast*

Plate 14 *Trench 5, post-ex, looking southwest*

Plate 15 *Trench 5, post-ex, looking northeast*

Plate 16 *Series of agricultural furrows crossing eastern portion of Trench 6, looking northeast*

Plate 17 *Trench 6, post-ex, looking southwest*

Plate 18 *Trench 6, post-ex, looking northeast*

Appendix 2: Summaries of archaeological excavations

(*www.excavations.ie)*

Site Name	*Licence*	*Summary*
BOREENMANNA/ BLACKROCK/ BALLINLOUGH/ CENTRE PARK ROAD, CORK	99E0212	Excavation of service trenches for this phase of the Cork Main Drainage Scheme began on 5 May 1999 and is ongoing. It involves the laying of sewer pipes (maximum diameter 1.05m) and storm drainpipes (diameter 1.35m) in trenches varying in depth from 2m to 5m and the construction of associated chambers of a small pumphouse at Blackrock. The areas affected by the scheme are in the south-east suburbs of Cork City, which were largely settled by the wealthy upper classes in the 18th and 19th centuries. Blackrock village was historically a harbour defended by the eponymous castle. There are two other castles in the vicinity, Dundanion and Mahon, indicating settlement in the medieval period. The strategic location of the settlement at the entry to the inner reaches of Cork harbour implies that Blackrock was important in historic, and perhaps in prehistoric, times. The placename Boreenmanna (Bóithrín na Manach, 'The Monks' Road') indicates a link with the graveyard at Churchyard Lane and with the reputed foundation of the Knights Hospitallers at Temple Hill. The route of the drainage pipes under the late 18th-century 'Citadella lunatic asylum' (to the east of Victoria Avenue, between the Blackrock and Boreenmanna Roads) was thrust bored. This Georgian building is a recorded monument and was not interfered with by the engineering works. Monitoring of excavation in the east section of the Boreenmanna Road recorded no features apart from a 19th-century road foundation and associated wall. Stratigraphy in the Centre Park Road area consisted of 19th- and 20th-century layers of reclaimed ground over a gravelly silt that did not yield any archaeological material. At Blackrock a wall and road associated with 19th-century improvements at the harbour were recorded. No archaeology was recorded in Ballinlough. The works in the above areas did not directly impinge on any recorded monuments.
ZONE D, BALLINURE, MAHON	02E1666 ext.	Monitoring of ground reduction on the western area of Zone D of the Mahon Point development was carried out under an extension to the original licence. No features or finds of archaeological significance were revealed.
Ballinure, Mahon Point, Cork	10E0215	Testing, comprising a controlled topsoil-strip of the entire development site, was undertaken in advance of a commercial development. No features or finds of archaeological significance were revealed.
Ballinure and Mahon	02E1666	Testing was carried out on the first phase of a development at this site, to the north of the Mahon Link Road and the South Link Road. Eleven trenches were excavated across this part of the site. Numerous drainage features were revealed, as well as a pit filled with modern finds. One feature of archaeological potential was revealed in Trench 3, a small pit filled with charcoal-rich silty clay. The feature measured 0.76m north–south by 0.65m by 0.24m deep. No finds were identified in it, and thus its dating remains uncertain. The probable remains of an icehouse associated with Lakeview House were revealed within a mound of rubble. Lakeview House itself was demolished during the latter half of the 20th century. The icehouse structure was partially collapsed when it was exposed. It was of brick-and-stone construction, with a possible vaulted entrance passageway. Further work will be undertaken on the site during 2003, when construction will proceed.
Ballinure, Mahon	02E1666	An assessment of two portions of the site was undertaken before development commenced. Zones B and C are located at the northern and north-western side of the Mahon Link Road and Zone D at the southern side of the Mahon Link Road. Eleven trenches were mechanically excavated in Zones B and C and eight were excavated in Zone D. No features of archaeological significance were revealed in Zone D. In Zone C one feature of archaeological significance was revealed in Trench 3. This was an area of prehistoric activity which was excavated under licence 03E0060 (see No. 299 below). The testing licence was extended to cover monitoring of Zones B and C when development commenced. An area of post-medieval activity was identified and excavated under licence number 03E0181 (see No. 300 below).
Ballinure, Mahon	03E0059	An assessment, followed by excavation of the standing remains of an ice-house associated with Lakeland country house, was carried out before development. The ice-house comprised a brick-built circular ice-chamber or bowl with a drain below and an entrance passage with evidence of two doorways closing it. The roof of the structure had collapsed into the bowl but was originally domed over the circular chamber and of brick construction. Some evidence of the brick vault over the entrance passage survived in situ, but both the circular chamber and the entrance passage were filled with rubble and topsoil. Outside the ice-house, to the north, a partially cobbled courtyard was present surrounded by a retaining wall. The internal diameter of the ice-bowl was 5.5m at the level of the passageway floor and the bowl extended 3.5m below this level to the base forming the subterranean component of the ice-house. The entrance passage was 2.15m long and 0.95m wide. The structure was built during the first half of the 19th century as one of the many features within the demesne lands of Lakeland on

Site Name	*Licence*	*Summary*
		the shores of Lough Mahon.
Ballinure, Mahon	03E0060	An area of prehistoric activity was identified during testing under licence 02E1666 (No. 297 above) in an area known as Zone C in the area of development. Features revealed during the excavation included a hearth surrounded by 50 stake-holes. Almost 1.5m west of the hearth a shallow, truncated linear feature, 2.4m long, may represent a support for a light windbreak structure. Further west again, seven pits were found, three of which were similarly sized and clustered close together; two shallow pits were identified to the south of these and two more substantial pits to the north. The three pits ranged in size from 0.45 to 0.83m in diameter and 0.22–0.3m deep. A number of finds were recovered from them, including a possible quartz scraper, a fragment of a small flint bladelet, a flint flake, a type of flint plano-convex slug knife, two pieces of amethyst, one of which has a usable cutting edge, and a small sherd of possible Bell Beaker pottery. The two isolated pits to the south produced no finds. One of the northern pits produced finds of post-medieval date and the other produced two querns, one with a very pronounced saddle profile and the other with a concave profile and a struck quartz crystal. This pit was 0.88m in diameter and 0.5m deep.
Ballinure, Mahon	03E0181	A number of features associated with Lakeland country house were excavated, including two access roads and a number of garden features.
Ballinure, Mahon	03E0531	Testing was carried out followed by monitoring before development. Seven test-trenches were excavated across the site. No features or finds were revealed.
Ballinure, Mahon	03E0580	Testing was carried out before development. Ten trenches were excavated across the site. The features revealed relate mostly to garden features of Lakeland country house. An oval subterranean cellar was also opened and recorded.
Mahon Industrial Estate, Blackrock	06E0686	Three test-trenches were excavated across the site following demolition of the standing building. No features or finds of archaeological significance were revealed in the test-trenches.
BESSBORO, MAHON	08E0920	Monitoring of service trenches took place on this site, adjacent to a country house and grounds. No finds or features of an archaeological nature were noted.
BLACKROCK CASTLE, MAHON	99E0297	Three test-trenches were opened here in June 1999. Nothing of an archaeological nature was noted.
Lough Mahon, Cork	01E0782	As part of Phase II of the Cork Main Drainage Scheme, a submarine pipeline trench was dredged east–west across Lough Mahon. Monitoring of the dredging operation commenced on 8 August 2001, in two 12-hour shift cycles. The backhoe dredger loaded three hopper barges, each drawn by a

Site Name	*Licence*	*Summary*
		separate tug, operating in cycles of around five hours each, depending on tidal and weather conditions. The dredged material was deposited approximately 7m north of the harbour entrance. The archaeologists monitored from the wheelhouse of the dredger, as this afforded the best view of the hopper of the barge whilst loading. The wheelhouse has a direct communications link with the backhoe operator, to which the archaeologists had free access as and when required. Despite having spent a total of 68 days (816 hours) monitoring aboard the dredger in Lough Mahon, only four timbers were recovered, all at chainage 2400 (NGR 174393 70633 approx.). Two measured c. 2m by 0.35m by 0.3m, and were roughly squared in section. Of the two smaller timbers, the largest measured 1.05m by 0.35m by 0.2m. Preliminary inspection shows little conversion of the original wood, except for the rough shaping. There were no obvious marks to indicate what tool was used during conversion, but further cleaning and more thorough inspection are to be carried out at a later date, with a view towards eventual identification. Preliminary inspection suggests that they represent marine piles, possibly tethering posts for a navigational buoy. Altogether, 3289m of pipe trench were excavated across the lough, but nothing tangible was found besides the suspected piles. Of over 400 shipwrecks in Cork Harbour (Kelleher, pers. comm.), the locations of the majority of which are unrecorded, we can say that we have found nothing of note. What may be termed 'Cork Harbour', however, is vast, stretching from the quays in the city to the mouth of the estuary at Roches' Point and Cobh. It is unsurprising then, in light of this fact, that in excavating perhaps less than 1% of the total area of Cork Harbour nothing of archaeological significance was noted.
Lakeland Strand, Mahon	01D076	Excavation work was undertaken on the foreshore at Lakeland Strand as part of the Lough Mahon crossing for the Cork Main Drainage Scheme—Phase II (see No. 160 above for Lough Mahon). Land-based mechanical excavators continued the pipe trench from the farthest point at which the dredger could reach, up the beach to a pumping station site. Nothing of archaeological significance was noted during these excavations.
River Lee and Lough Mahon	02E1346	Monitoring of maintenance dredging in the River Lee, from Cork city through Lough Mahon to Passage West, took place from 26 August to 1 September 2002 on behalf of Cork Main Drainage. Two vessels were employed on the dredging operation, a suction hopper dredger, the Volvox Anglia, and a plough dredger, the Camperduin. Monitoring involved inspection of the screen on the dredge-head of the suction dredger and the plough on the plough dredger when these were lifted from the water at the end of the dredging cycles. In Lough Mahon, at NGR 173542 071550, the lower left mandible of a cow was recovered. Otherwise, no objects

Site Name	*Licence*	*Summary*
		of archaeological interest were recovered, the material observed consisting largely of modern domestic debris.
Maryborough House, Douglas	14E0389	An archaeological and architectural assessment of a proposed development at Maryborough House (currently operating as the Maryborough Hotel and Spa), Douglas, Co. Cork was initially undertaken by Tobar Archaeological Services. Monitoring of ground works was subsequently carried out in compliance with the conditions of planning permission (Ref: 14/04571). The proposed development involved the construction of a single storey conservatory/pavilion structure with link corridor to the west side of Maryborough House which is both a recorded monument (CO074-89) and a protected structure (RPS 00479). Monitoring of ground works revealed a large slate dump in the area to the west of the house, indicating the removal of weather slate from the original house. A buried sill was also uncovered within this area, which further confirmed the presence originally of windows in the west elevation. No other archaeological finds, features or deposits were uncovered during monitoring. Architectural monitoring was also undertaken during the works which revealed the presence of a blocked window opening and other possible blocked windows in the west wall of the house.
Monfieldstown	05E0774	Monitoring was carried out on a site at Monfieldstown, Rochestown, Cork. No features or finds of archaeological significance were revealed. Further monitoring of Phase 2 of the proposed development is required. A standing stone is located within the north-western area of the development site. The site layout and design was altered to accommodate a 10m buffer zone around the standing stone. This standing stone was incorrectly located and recorded in the files of the Archaeological Survey of Ireland. The correct information has been passed on to the Survey.
Harty's Quay, Monfieldstown, Rochestown	00E0607	Four test-trenches were opened by mechanical digger on 13 June 2000. All four trenches were opened along an east–west axis running the whole width of the quay and were 1.5m wide and c. 1.3m deep. The stratigraphic content was similar in all the trenches: topsoil to a depth of 0.4m; subsoil at the western end to a depth of 1.3m; and at the eastern end loose rubble fill, 0.25m thick, under concrete and above subsoil. Below this at 1.3m was estuarine clay. No archaeological features, layers or artefacts were noted in the trenches.
Monfieldstown, Rochestown	02E1273	A grant of planning was issued for the construction of 52 dwelling-houses in the restored Norwood House grounds. The site is outside the zone of archaeological potential of Ronayne's Court, a fortified house. The grant of planning required that the removal of topsoil and subsurface disturbance be monitored. Topsoil was removed by machine using a toothless bucket. No finds or features of an archaeological nature were noted.

- Appendix 10.3 - Historic Building Record prepared by John Cronin and Associates

JOHN CRONIN & ASSOCIATES
ARCHAEOLOGY | CONSERVATION | HERITAGE | PLANNING

Historic Building Record

The Farm, Bessboro, Ballinure, Blackrock, Cork City

Prepared by
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3a Westpoint Trade Centre
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For
Estuary View Enterprises 2020 Ltd
c/o Shipsey Barry Ltd
4 Strandville
Rushbrooke
Cobh
County Cork

February 2022

1. Introduction

John Cronin & Associates have been commissioned by **Estuary View Enterprises 2020 Ltd** to carry out a historic building record ahead of a proposed development in lands at Ballinure, Mahon, Cork. Cork City Council and An Bord Pleanála have requested the preparation of a historic building record to accompany a Strategic Housing Development (SHD) for the subject lands.

Figure 1: *Site location encircled in yellow (© Google)*

2. Context

Environmental Context

The site is situated within the townland of Ballinure on lands to the north of the South Ring Road and to the west of the former Cork, Blackrock and Passage Railway line. The site consists of the northern range of a cluster of much-altered farm buildings that formed part of the former "Bessboro Farm". In recent decades much of the former land parcel was the home to "Cork Heritage Park" which is now closed.

Figure 2: *Subject site circled in red*

Legal Context

The National Inventory of Architectural Heritage (NIAH) lists three structures within 250 metres of the subject site. There is a total of three structures included on the list of protected structures for Cork City and County Cork within *c.*1km of the site. These include Bessborough (or "Bessboro") House, which is both an recorded monument and a protected structure and is outside the subject area but surrounded by the subject lands**.** Listed below are the protected structures within 1km of the subject site (**Table 3**):

Table 3*: Record of Protected Structures within c.1km of the subject site*

RPS No.	***Name/Type***	***Location***
00478	Windsor House (Rochestown Park Hotel)	Monfieldstown, Rochestown, Co. Cork
00476	Bloomfield House	Monfieldstown, Rochestown, Co. Cork
PS490	Bessboro Convent (Central Block)	Bessborough, Ballinure, Mahon, Cork City

Historical context and cartographic evidence

Bessborough House is believed to have been built in 1760 as a residence for the Allens, a prominent Cork Quaker family. In 1814 the house and lands were acquired by a Mr J. Spence and changed hands again shortly after to the Bousefield family. In about 1820 the property was bought by Joseph Pike. of Cromwellian planter origin, the Pikes became a prosperous Quaker family whose business interests included the Cork Steamship Company, Pike's Bank, a drapery store and railway development. Bessborough remained in the Pike family until 1920 when the last of two spinster sisters, Ann Emily Pike, died. The property was sold to the Sisters of the Sacred Hearts of Jesus and Mary in 1922.

Figure 3: *Cork City and eastern suburbs as depicted by George Taylor and Alexander Skinner's Maps of the roads of Ireland in 1778. Bessborough is indicated as "Bisboro" and the proprietor as Allen Esq.*

The first edition indicates that at that time the house consisted of a central squarish block with a projecting wing to either side (**Figure 4**). The western wing terminated in what appears to be a pavilion. The eastern wing extended to the north forming a long range of buildings, possibly a service wing, which defined the east side of a yard to the rear of the house. The north side of the yard was enclosed by a further range of buildings, presumably out-offices, stables and/or coach-house (at the time, the house lacked a separate farmyard complex).

Figure 4: *First edition 1:10,560 Ordnance Survey map (Surveyed 1841, published 1845)*

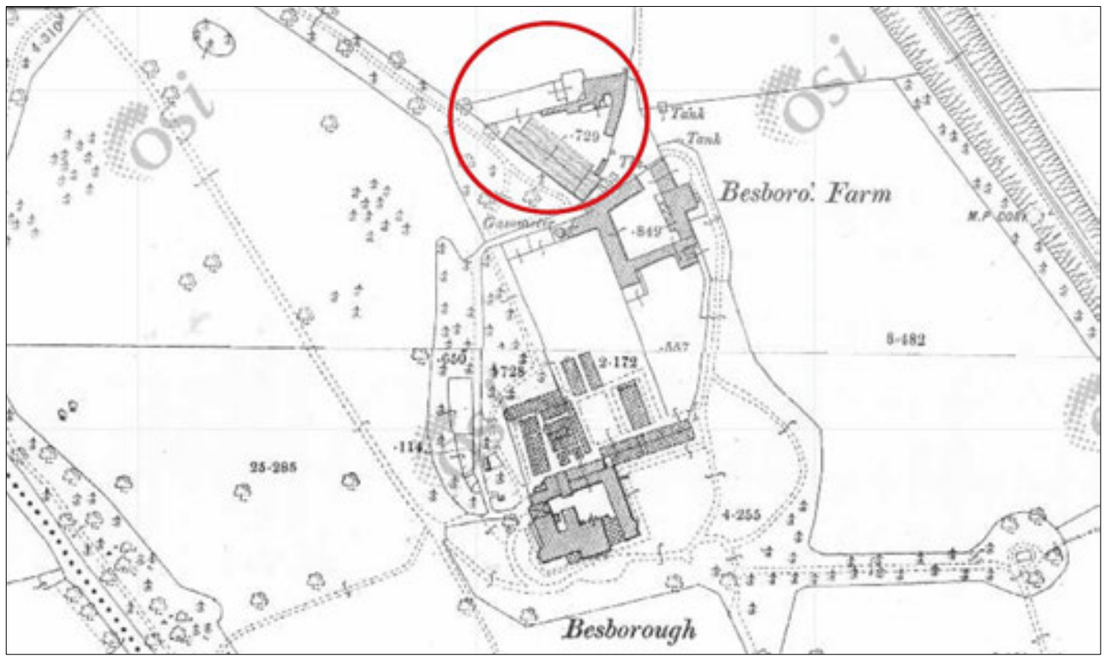

Figure 5:*1:2500 (25"-inch) Ordnance Survey Map (Surveyed 1899/1900, published 1901)*

By the time of the 25" inch Ordnance Survey in 1899 (**Figure 5**) the house had been extended and a large number of additional out buildings had been constructed. The other main area of construction was the creation of a complex of farm buildings, indicated as "Besboro' Farm" to the north northeast of the house. These buildings were arranged around two courtyards, a square one to the south and a triangular one adjacent to the north. A major addition to the immediate landscape, although not within the actual historic demesne, was the construction of the Cork to Blackrock railway in 1850 the line of which is clearly indicated to the east of the historic estate.

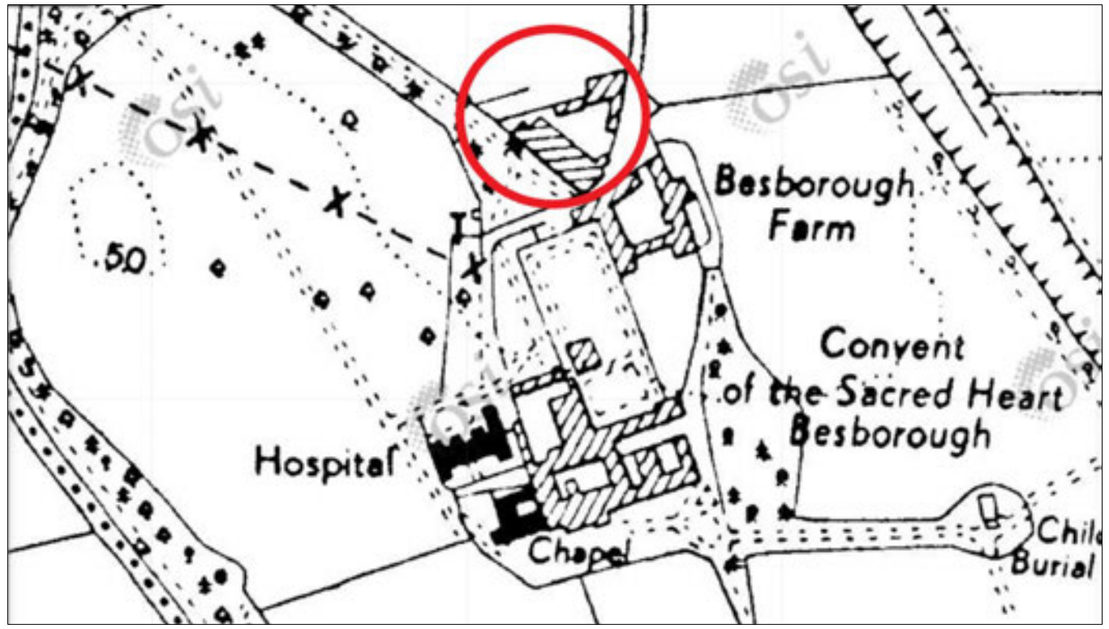

Figure 6: *Extract of 1956 Six-Inch-to-One-Mile Ordnance Survey Map. The changes wrought by the establishment of the convent by the Sacred Heart Order. The original Bessborough House has been greatly extended with the addition of a hospital and chapel. A children's burial ground within the enclosure of the folly is named on this map edition*

Since 1990 many of the outbuildings comprising "Bessboro' Farm" have been renovated for use as a heritage centre (now defunct) and as office/educational units. In addition, a number of new structures, including a crèche and a meditation centre, have been constructed in the area which originally comprised the walled gardens. As part of the Heritage Park development the former parkland to the north of the house (and west of the northern farmyard) was fenced off and replanted with trees that have diminished the former open parkland quality that was clearly evident on mid-twentieth-century mapping and aerial photographs (see **Figures 6 & 7**). On the aerial photograph in particular, the farm is separated from the parkland area to the west by an estate wall and a tree belt whilst the parkland area itself is remarkedly open and largely devoid of trees.

Figure 7: *1951 aerial image showing the subject site (Source: Military Archives, Vertical Aerial Photography, V190 #72; Cork-Douglas/Blackrock, 13 February 1951).*

3. Description of subject site

The subject site is located in the townland of Ballinure, to the south of Mahon, a suburb of Cork City with a variety of established and emerging land uses. The site is located approximately 5km to the southeast of the city centre. The lands are located on a gently sloping low hillside that falls towards the Douglas River and Cork Harbour estuary. The subject site (see **Figure 8**) is the more northerly of two ranges/yards of farm buildings associated with Bessborough House. The southern yard is not impacted by the proposed development, and it is not documented in this report.

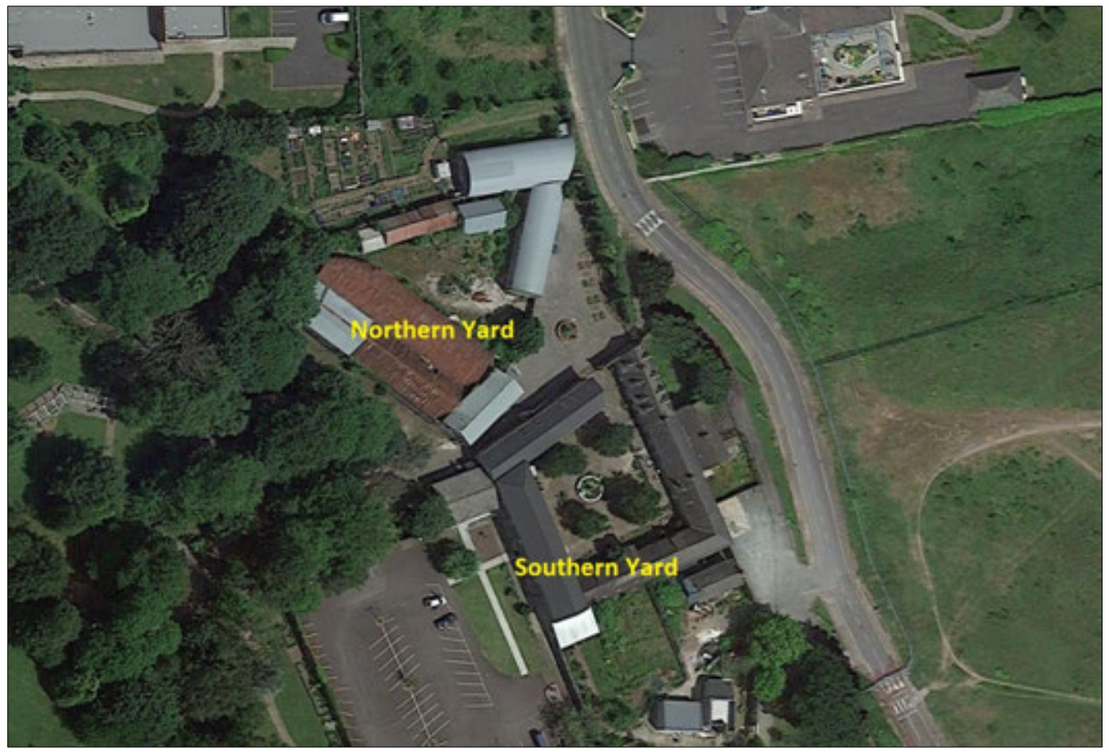

Figure 8: *Aerial view of the former Bessborough Farm – the complex consists of two yards – the northern yard is the focus of this report (Source: Google Maps)*

The subject site is the late-nineteenth-century farm complex known as "Bessboro Farm" (NIAH Reference 20872006). The NIAH describe the buildings as follows:

> *Farmyard complex, built c.1880, to north of Bessborough House comprising two ranges of single- and two-storey outbuildings arranged around central yards. South yard houses stables and two-storey domestic building, north yard incorporates two-storey building, L-shaped barn and open corrugated-iron barn structure. Pitched slate roofs to south yard with dormer windows and corrugated-iron roofs to north yard. Coursed rubble stone walls with remnants of early render to walls of north buildings. Walls to south yard re-rendered in 1993. Square-headed window openings with red brick surrounds c.2000 and replacement windows to north yard. Square-headed window openings with replacement windows to south yard. Square-headed door openings with red brick surrounds c.2000 and replacement doors to north yard. Cut limestone piers to gateway to south yard. Extensive walled garden to north of house enclosed by coursed limestone walls, c.1880, and possibly incorporating earlier fabric dating to construction of Bessborough House, c.1760. Greenhouses constructed within garden c.1880 with three surviving.*

The farmyard complex was built c. 1880 and contained a large variety of functions, including stables, dairy, barns, and accommodation for farm workers. The former farm complex has been recorded by the National Inventory of Architectural Heritage (NIAH Reference 20872006). The northern yard (within the development site) is triangular-in-plan and incorporates a two-storey building, a L-shaped barn, an open corrugated-iron barn structure and a series of modern structures. The southern yard, located outside of the development site, is roughly square-in-plan; this courtyard housed stables, workshops and a two-storey domestic building (possibly a farm manager's house). Generally, the buildings within the northern yard served more utilitarian functions and are, for the most part, much-altered. There is a greater degree of formality and design intent to the configuration, layout and design of the buildings that form the southern yard. The farm complex appears to have been in active use up until the 1980s.

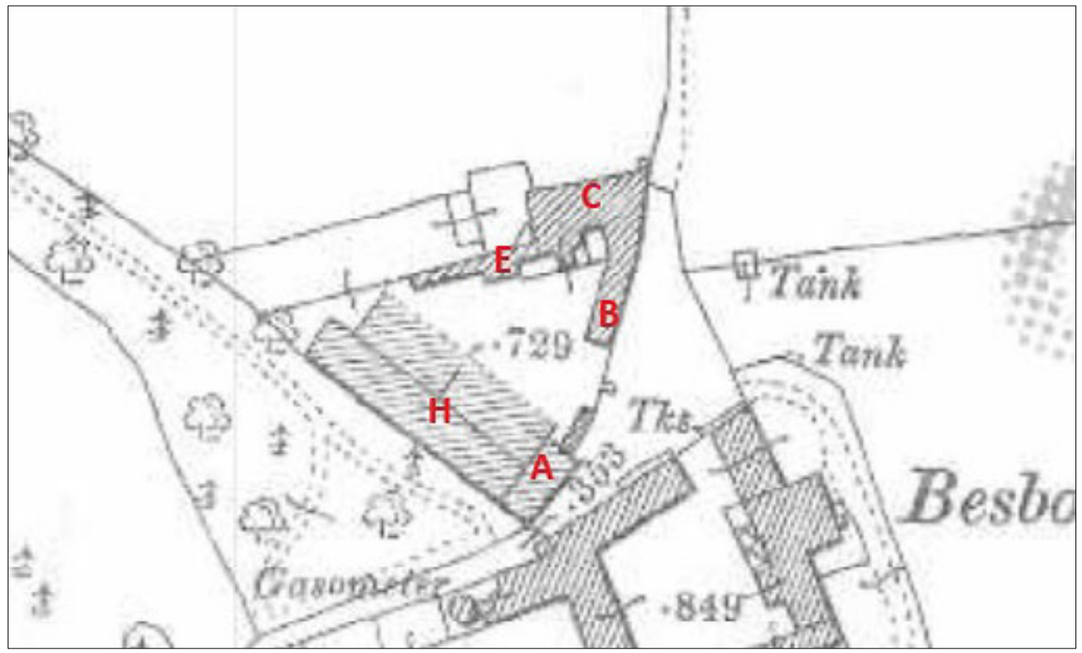

Figure 9: *Depiction of the northern yard on the 1:2500 Ordnance Survey map (Surveyed 1899/1900, published 1901)*

The subject buildings in the northern portion of the farmyard complex and are laid out in a triangular shape around a central courtyard with an entrance to the southeast. The 1:2500 Ordnance Survey map of 1901 (see extract below (**Figure 9**)) shows the complex soon after its construction. The two-storey structure, (hereafter referred to as "**Building A**"), is depicted with a flight of external steps to the northeast elevation which were likely to be of stone construction. **Building B** and **C** are also depicted to the northeast corner. There are some structures adjacent to the southern elevation of **Building C** which are no longer extant. **Building E** is depicted

as a central part of a northern range and connected to Building C, only Building C remains extant. The former barn, **Building H**, forms the western boundary of the complex and is sub-divided longitudinally. The stone wall of the southwestern elevation extends to the northwest as a boundary wall.

Upstanding buildings on site

The subject buildings form the northern range of part of a complex of farm buildings located to the north of Bessborough House. They consist of a cluster of buildings laid out around a central triangular courtyard with an entrance to the southeast. The buildings are currently unoccupied. The buildings have been labelled as follows for the purpose of this description and a photographic record is included in the appendix to this document:

A. A late nineteenth-century, two-storey stone-built building with a replacement pitched metal profile roof.
B. A late nineteenth-century double-height stone-built former store building with a replacement corrugated metal barrel roof.
C. A late nineteenth-century, double-height stone-built former store building with a replacement corrugated metal barrel roof.
D. A modern detached, single-storey concrete block-built building with a modern metal roof.
E. A late nineteenth-century, single-storey, three bay stone-built building with a pitched corrugated metal roof.
F. A modern, three-bay, single-storey modern concrete-built structure with stone facing and a pitched corrugated metal roof.
G. A modern, single-storey concrete-built structure previously in use as a toilet block with stone facing and a shallow pitched metal roof.
H. A late nineteenth-century, double height stone-built former barn, open to eastern elevation. Replacement pitched metal profile roof to western section, damaged barrel corrugated roof to eastern section.

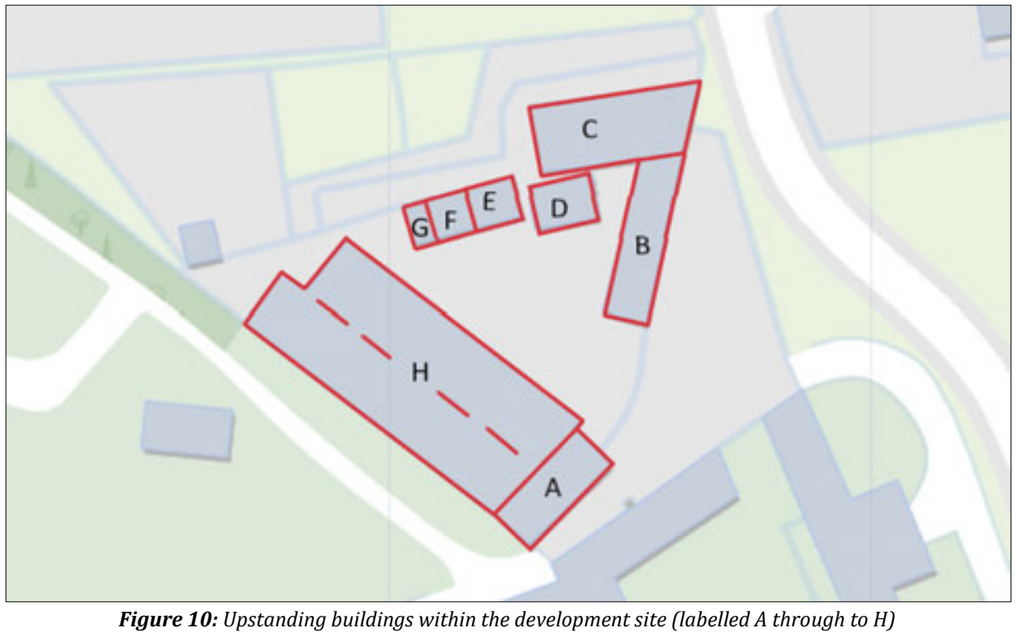

Figure 10: *Upstanding buildings within the development site (labelled A through to H)*

Building A (see Appendix: Photographic Record - Plates 1 – 8)

A late nineteenth-century, two-storey stone-built building with brick detailing to windows which are replacement uPVC frames. Sections of render to first floor and a replacement pitched metal profile roof. External metal staircase on the north-eastern elevation accesses the first floor. The rear elevation is much altered with a number of blocked up original openings and later insertions.

Interior much altered and modernised with modern joinery and plastered and painted walls and ceiling. Open plan rooms to ground and first floor, a modern internal stair leads to the first floor.

Interior

The ground floor is occupied by three rooms A-GF01—A-GF03

Hallway-A-GF01 is accessed via a doorway on the southern elevation with a modern roller door. The ceiling and walls are plastered and painted with plain modern skirting. The floor is concrete with a carpet covering. A modern staircase leads to the first floor.

A-GF02 is accessed via a modern painted timber door with glazed panel in the eastern elevation. The room is lit from the south by two windows with replacement uPVC window frames. The ceiling and walls are plastered and painted with plain modern skirting. The floor is concrete with a carpet covering. There are no internal features of architectural heritage interest. A-GF03 is a small WC off the hallway A-GF01. Walls and ceiling plastered and painted with modern fittings.

A modern door at the top of the stairs leads to an open plan hall A-FF01. The ceiling and walls are plastered and painted with plain modern skirting and carpet floor covering. The room can be sub-divided by a modern folding partition. The room is lit by five windows with replacement uPVC window frames. A modern painted timber door with glazed panel in the eastern elevation leads to a modern metal external staircase.

Building B (see Appendix: Photographic Record - Plates 9-12)

A late nineteenth-century, double-height stone-built former store building with a replacement sheet metal barrel roof. The building shares its northern wall with Building C forming an L-shaped structure. The western elevation has been extensively rebuilt and has a number of blocked-up openings using a mixture of stone, brick and render.

Interior

The building is accessed via a modern doorway in the eastern elevation. The ground floor is sub-divided into three rooms by stone-built walls. The floors are concrete and the ceiling is a modern replacement. The walls have been clad with insulation and rendered, the western wall has a number of openings blocked up with modern blockwork and brickwork. The rooms are interconnected by centrally located openings in the internal stone walls. A modern timber staircase in B-GF02 leads to the first floor.

The stairs leads to a small landing with a WC, a doorway leads to B-FF03. B-FF03 has exposed painted stone walls, a modern timber floor and replacement roof joists. B-FF04 is an attic space accessed via a hatch in the ceiling from B-GF03 and has exposed painted stone walls, a modern timber floor and replacement roof joists.

Building C (see Appendix: Photographic Record - Plates 13-14)

A late nineteenth-century, double-height semi-coursed, rubble stone-built former store building with a replacement sheet metal barrel roof.

Interior

The building is accessed via a modern opening in the southern wall and is occupied by a single open-plan room. The interior has a modern timber floor, painted stonewalls and a replacement metal truss roof supported on internal H steel beams. A chamber-headed brick vehicular entrance with a modern sheet metal double door is located in the western elevation with a replacement window to the upper section. The building is also accessed via a modern timber door in the eastern elevation which appears to be inserted into a blocked-up former opening.

Building D (see Appendix: Photographic Record - Plates 15-16)

A modern detached, single-storey concrete block-built building with a modern metal roof of no architectural heritage significance.

Building E (see Appendix: Photographic Record - Plates 17-18)

A late-nineteenth-century, single-storey, three bay semi-coursed ashlar stone-built building with a pitched corrugated metal roof. Brick detailing to windows, probably originally camber-headed but later altered when replacement uPVC frames were inserted. Internally, the building is modernised and has no original features.

Building F (see Appendix: Photographic Record - Plates 19-20)

A modern three-bay, single-storey modern concrete-built structure with stone facing and a pitched corrugated metal roof of no architectural heritage significance.

Building G (see Appendix: Photographic Record - See Plate 21)

A modern single-storey concrete-built structure previously in use as a toilet block. The walls have modern stone facing and cement render and a shallow pitched metal roof of no architectural heritage significance.

Building H (see Appendix: Photographic Record - Plates 22-27)

A late nineteenth-century, double height stone-built former barn, open to eastern elevation. It is sub-divided into two sections with a replacement pitched metal profile roof to western section and a badly damaged barrel corrugated roof to eastern section. The western wall is of exposed rubble stone and extends to the north forming part of the western boundary wall. Some sections have two courses of brickwork at the eaves level.

Interior

Internally the western section is subdivided by random rubble stone walls and later concrete-built divisions with concrete floors. The eastern section is open to the east and north with the southern end built up against the rear elevation of Building A. A flat-roofed concrete structure has been constructed within the eastern section of the building.

6. References

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http://maps.osi.ie/publicviewer/#V2,591271,743300,1,10 (Maps)
http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple (Bedrock)
https://maps.archaeology.ie/HistoricEnvironment/
https://www.logainm.ie

Appendix 1: Photographic Record

Plate 1: *View to subject site from gateway to east*

Plate 2: *General view to northern range with Building A on left and Building B on right*

Plate 3: *South-eastern and north-eastern elevation of Building A*

Plate 4: *South-western elevation of Building A*

***Plate 5**: South-eastern corner of Building A*

***Plate 6**: Modern steps to first floor on northeast elevation of Building A*

***Plate 7**: Blocked up brick arches in boundary wall to east of Building A*

***Plate 8**: Modern boiler house and north-western elevation of Building A*

***Plate 9**: Blocked-up openings in north-western elevation of Building A*

***Plate 10**: Ground floor room A-GF02 Building A*

***Plate 11**: First floor room A-FF01 Building A*

***Plate 12**: Eastern elevation of Building B*

***Plate 13**: Western elevation of Building B. Note upper section rebuilt*

***Plate 14**: Northern end of western elevation of Building B rebuilt with modern brick and stone finishes*

***Plate 15**: Southern elevation of Building B*

***Plate 16**: Entrance on eastern elevation of Building B*

***Plate 17**: Interior of western wall of Building B with blocked-up openings*

***Plate 18**: Modern floor joists in Building B*

***Plate 19**: Interior of western wall of Building B with blocked-up openings*

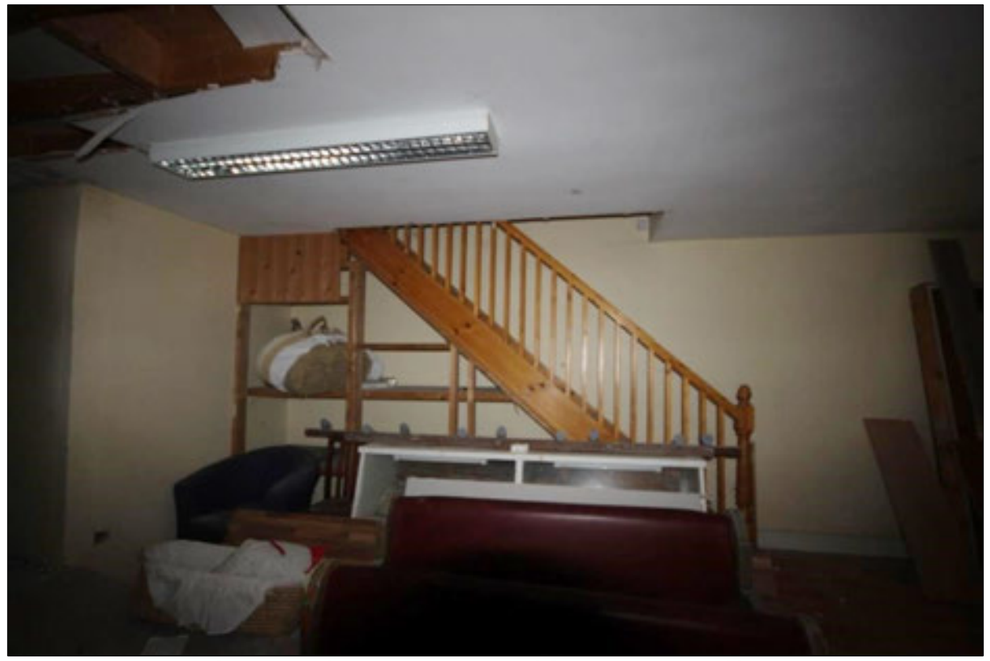


***Plate 20**: Modern staircase in ground floor room B-GF Building B*

***Plate 21**: First floor room B-BF Building B*

***Plate 22**: First floor room B-GF Building B*

***Plate 23**: Eastern elevation of Building C*

***Plate 24**: Northern elevation of Building C*

***Plate 25**: Southern elevation of modern structure Building D*

***Plate 26**: Interior of Building D with modern blockwork and joinery*

***Plate 27**: Southern elevation of Building E*

***Plate 28**: Window detail on southern elevation of Building E with replacement uPVC frame*

***Plate 29**: Cut stone detail to wall on southern elevation of Building E*

***Plate 30**: Interior view of Building E with modern floor, ceiling and wall finishes*

***Plate 31**: Southern elevation of Building F*

***Plate 32**: Interior of Building F with modern floor, ceiling and wall finishes*

***Plate 33**: Southern elevation of Building G*

***Plate 34**: Detail of modern stonework and render on corner of southern elevation of Building G*

***Plate 35**: Interior of Building G with modern finishes*

***Plate 36**: Eastern elevation of Building H*

***Plate 37**: Western elevation of Building H*

***Plate 38**: Northern elevation of Building E and boundary wall*

***Plate 39**: Interior of eastern portion of Building H looking to Building A*

***Plate 40**: Interior of eastern portion of Building H looking north with modern concrete addition*

***Plate 41**: Modern concrete built addition to northern portion of Building H*

***Plate 42**: Interior of western section of Building H*

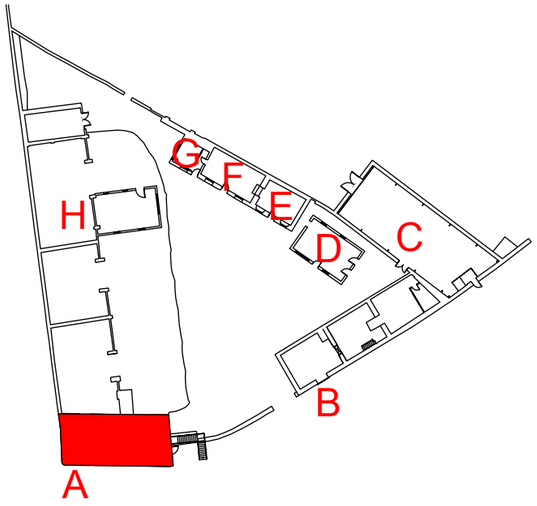
***Plate 43**: Interior of western section of Building H*

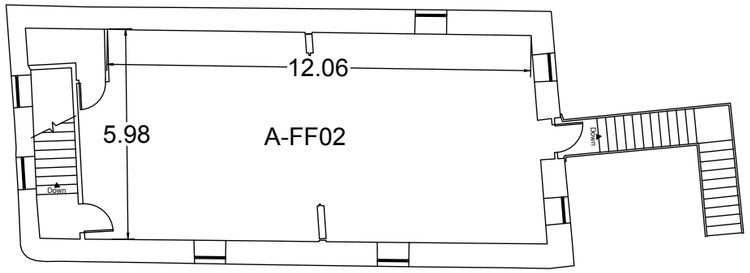
***Plate 44**: Steel truss roof in eastern section of Building*

***Plate 45**: Interior of western section of Building H*

***Plate 46**: View from eastern section of Building H looking west*

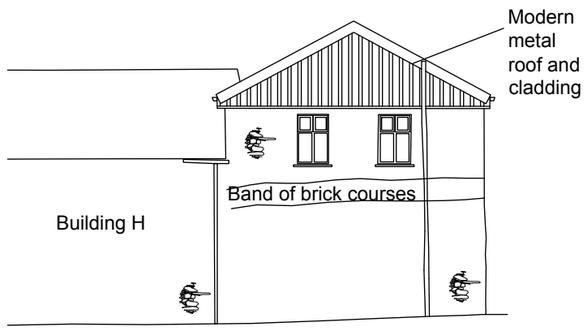
Appendix 2: Annotated record drawings



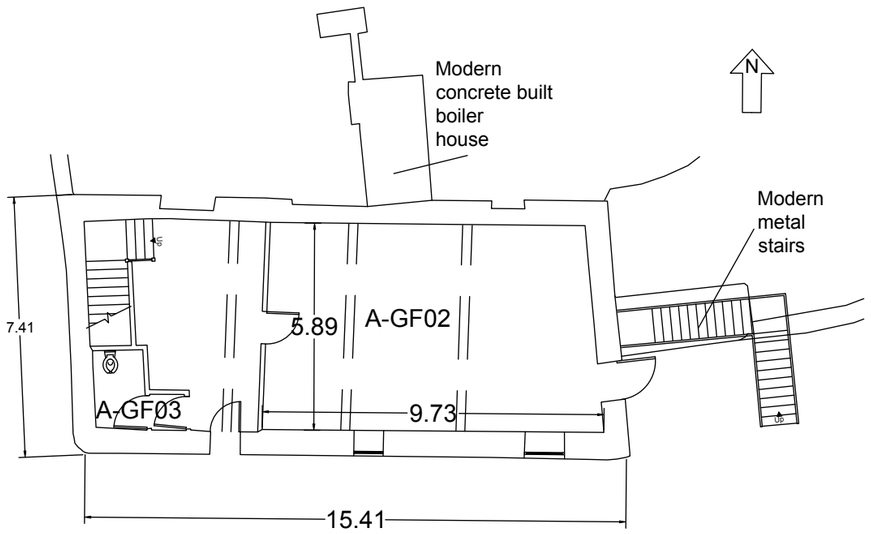


First floor plan

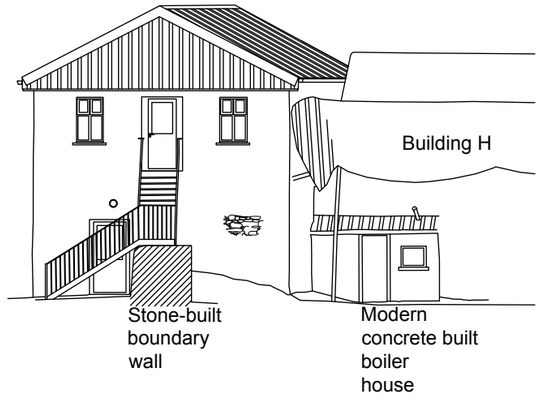
First floor room A-FF01



South-western elevation

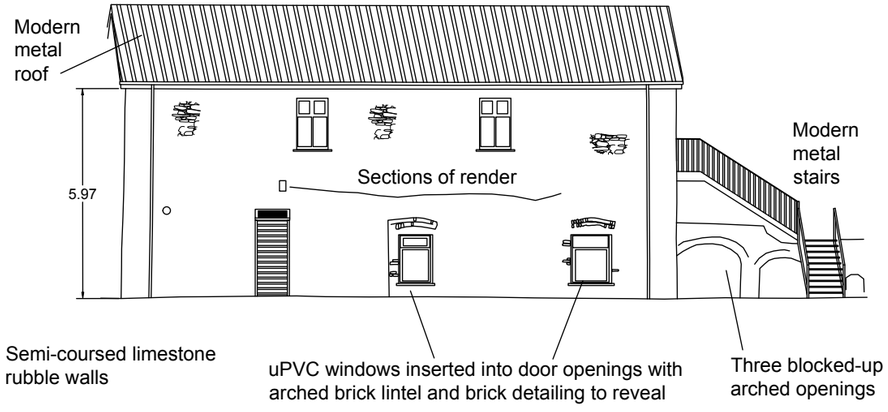


Ground floor plan



North-eastern elevation

South-eastern and south-western elevations of Building A



South-eastern elevation

South-eastern elevation of three original blocked-up arched openings under stairs

0 5 10m

R	Record
C	Construction
T	Tender
PL	Planning
A	Approval
PR	Preliminary
Stage	Description

Rev Mark	Revision	Date	By

Scale :

Date : 08/02/2022

Drawn :IOB | Checked :JC

Bessboro Farm Building A

Ballinure
Blackrock
County Cork

Rev

Project No. JCA IE21 272

Stage R | Drawing No. 001

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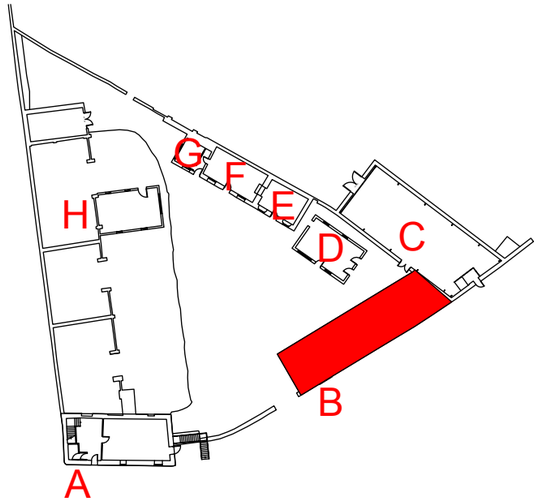
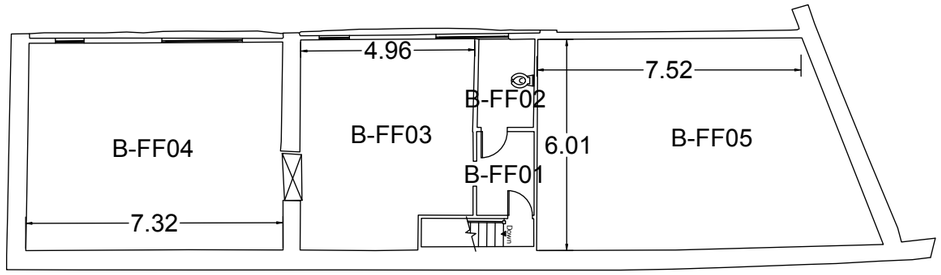
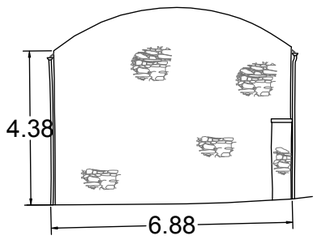


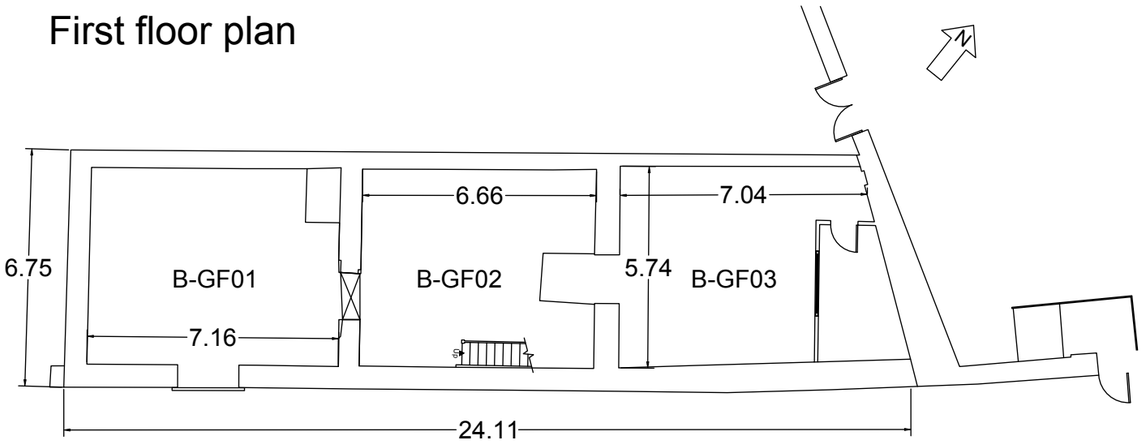


First floor plan

First floor attic space B-FF05



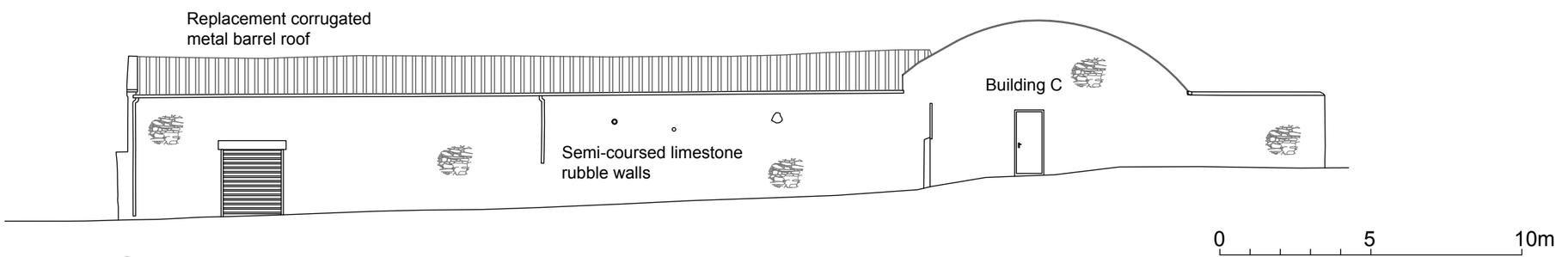
South-western elevation



Ground floor plan

North-western elevation

Northern end of north-western elevation



South-eastern elevation

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T	Tender
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A	Approval
PR	Preliminary
Stage	Description

Rev Mark	Revision	Date	By

Scale :

Date : 08/02/2022

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Bessboro Farm Building B

Ballinure
Blackrock
County Cork

Rev

Project No. JCA IE21 272

Stage R | Drawing No. 002

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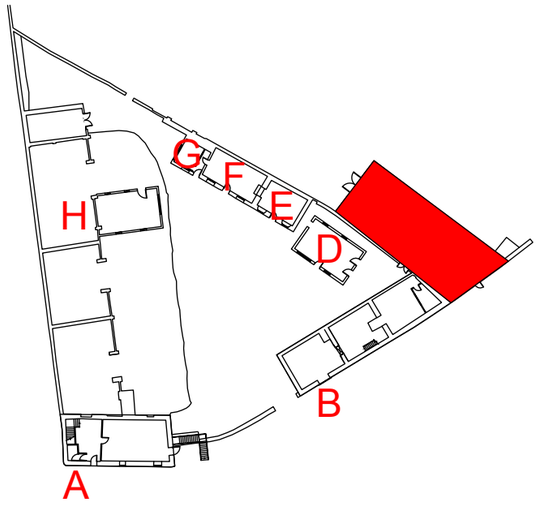

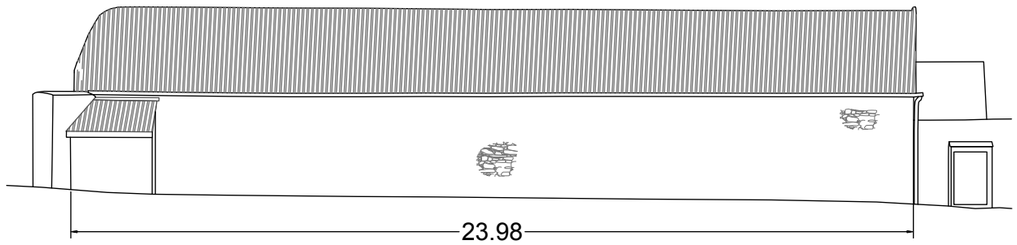

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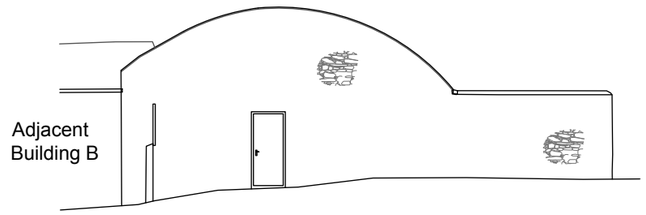
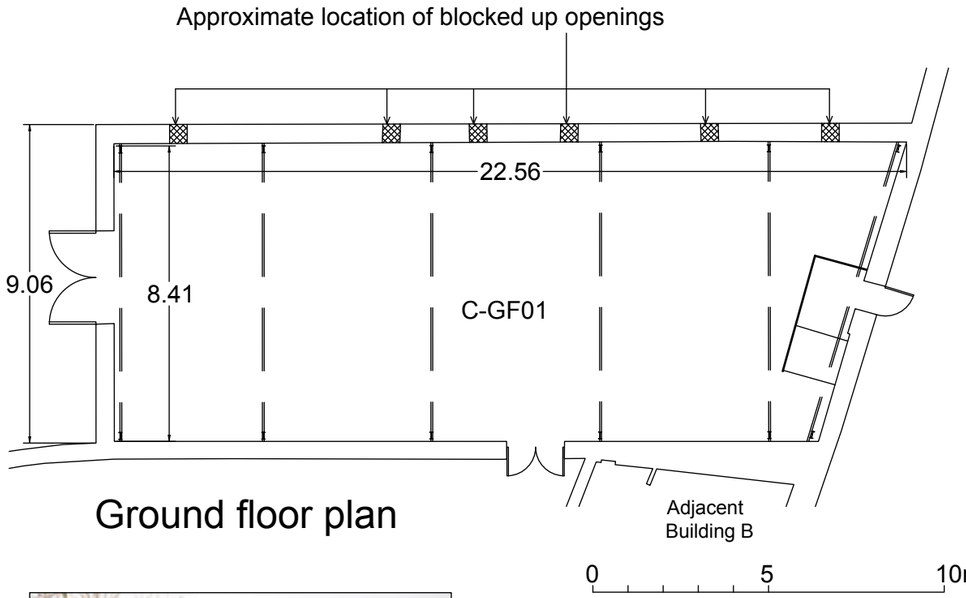
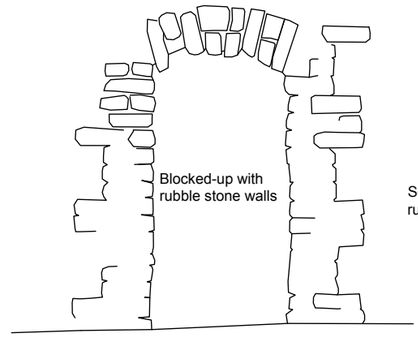


South-eastern elevation

Interior looking south-west



Ground floor plan



Detail of one of six blocked-up brick openings in north-eastern elevation

0 1m

Interior looking north-east

North-eastern elevation

R	Record
C	Construction
T	Tender
PL	Planning
A	Approval
PR	Preliminary
Stage	Description

Rev Mark	Revision	Date	By

Scale :

Date : 08/02/2022

Drawn :IOB | Checked :JC

Bessboro Farm Building C

Ballinure
Blackrock
County Cork

Rev

Project No. JCA IE21 272

Stage R | Drawing No. 003

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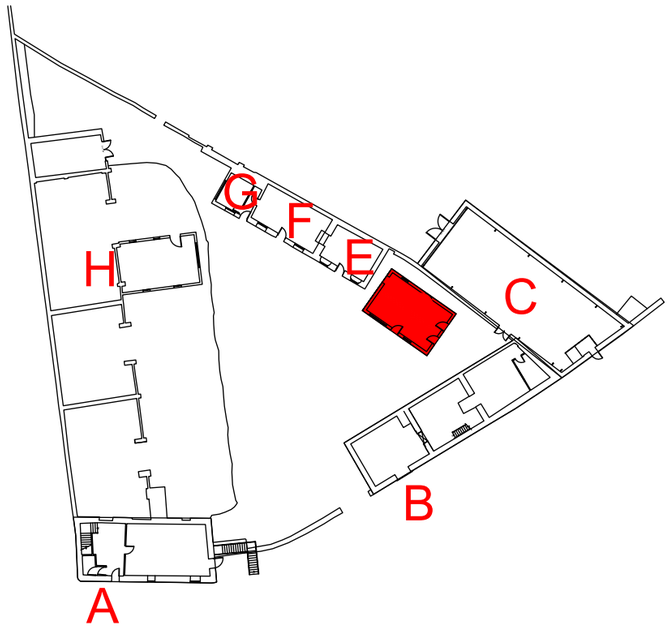

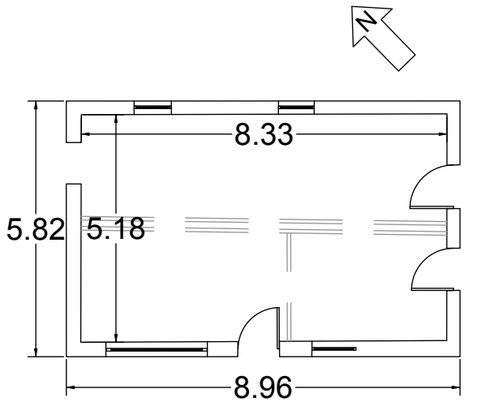

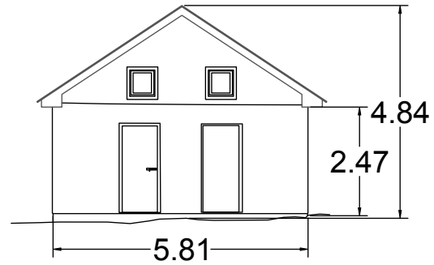

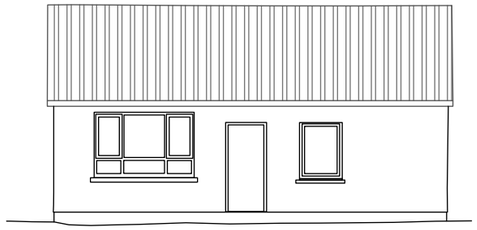

Corrugated pitched metal roof

uPVC windows and door

Concrete blockwork walls with cement render

0 5 10m

South-western elevation

Interior

R	Record							Scale :	Bessboro Farm Building D
C	Construction							Date : 08/02/2022	Ballinure Blackrock County Cork
T	Tender							Drawn :IOB / Checked :JC	
PL	Planning								
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Stage	Description		Rev Mark	Revision		Date	By		

Rev

Project No. JCA IE21 272

Stage R

Drawing No. 004

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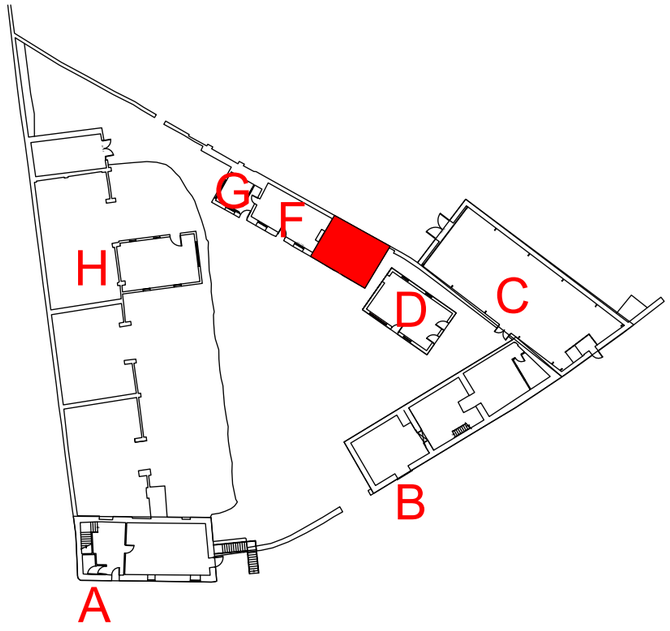
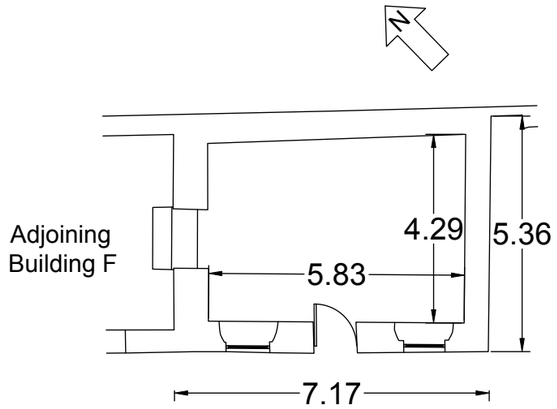
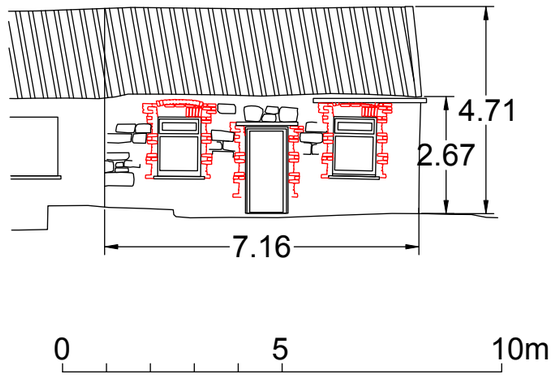
ARCHAEOLOGY | CONSERVATION | HERITAGE | PLANNING





Detail of window and ashlar wall

South-western elevation



Interior

R	Record					Scale :	Bessboro Farm Building E
C	Construction					Date : 08/02/2022	Ballinure Blackrock County Cork
T	Tender					Drawn :IOB / Checked :JC	
PL	Planning						
A	Approval						
PR	Preliminary						
Stage	Description		Rev Mark	Revision	Date	By	

Rev

Project No. JCA IE21 272

Stage R

Drawing No. 005

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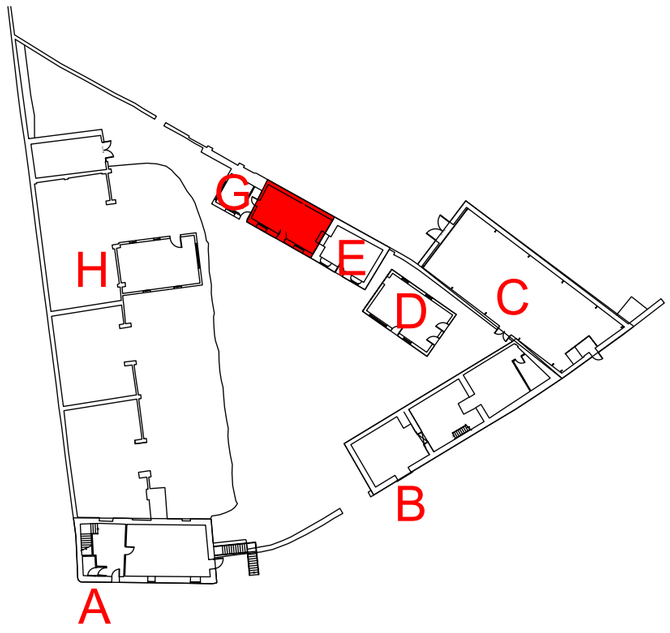
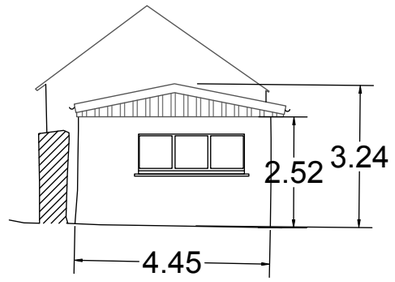
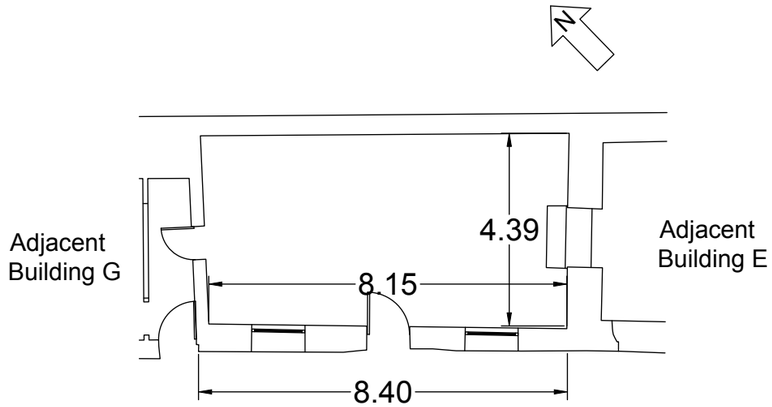
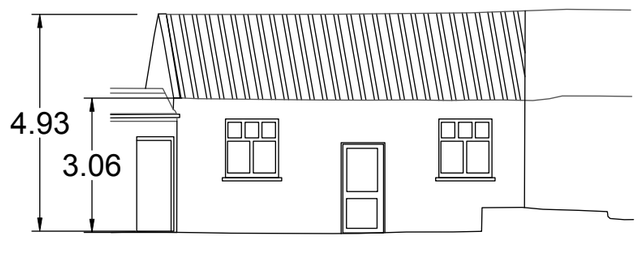




Cement render to walls with modern stone facing to front elevation





Corrugated pitched metal roof
Modern painted timber windows and door
Concrete blockwork walls with modern stone facing

0 5 10m

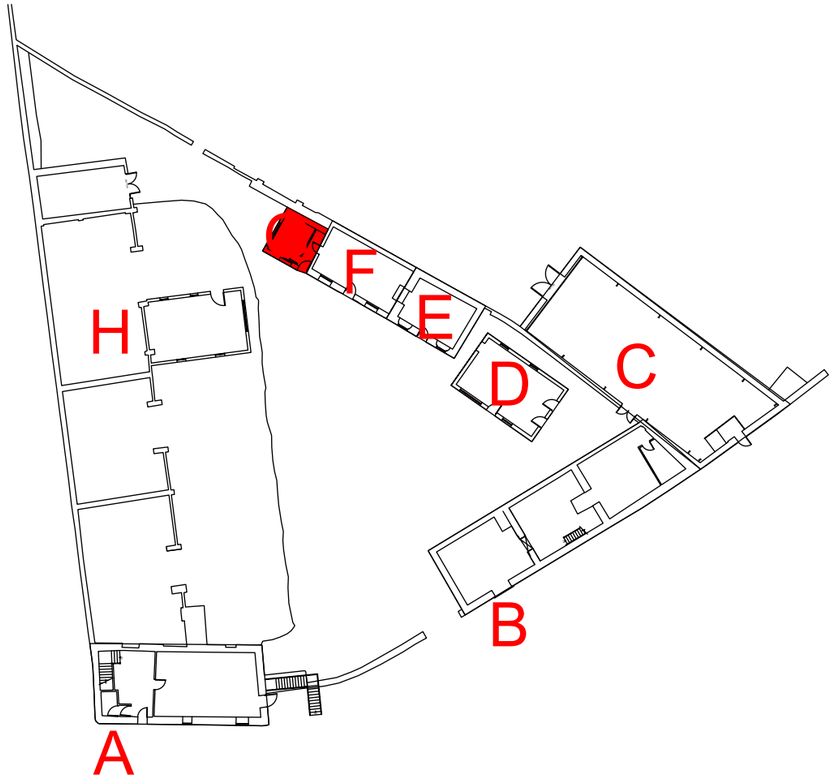
South-western elevation

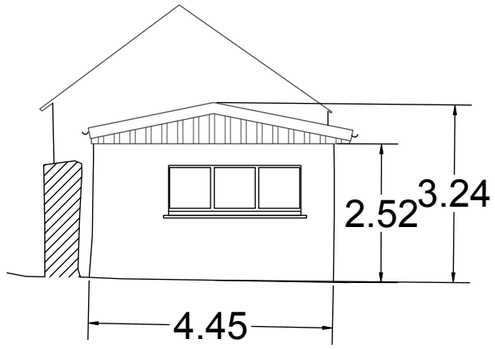
Interior

R	Record					Scale :	Bessboro Farm Building F
C	Construction					Date : 08/02/2022	Ballinure, Blackrock, County Cork
T	Tender					Drawn :IOB / Checked :JC	
PL	Planning						
A	Approval						
PR	Preliminary						
Stage	Description		Rev Mark	Revision	Date	By	

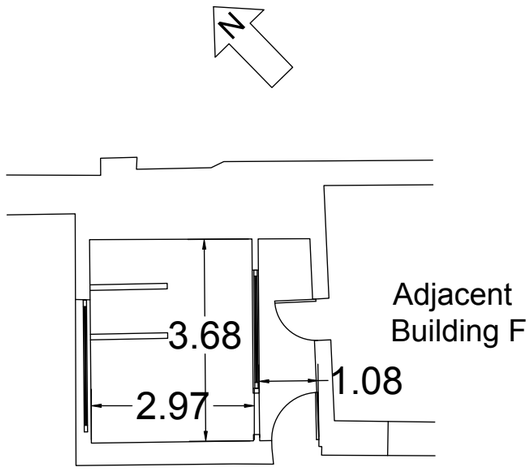
Rev
Project No. JCA IE21 272
Stage R
Drawing No. 006

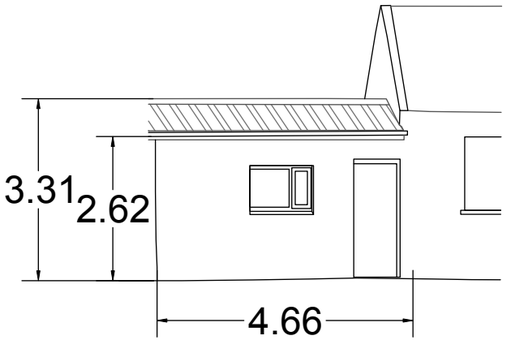
JOHN CRONIN & ASSOCIATES
ARCHAEOLOGY | CONSERVATION | HERITAGE | PLANNING





Cement render to walls
with modern stone facing to
front elevation





South-western elevation

0 5 10m

R	Record					Scale :	Bessboro Farm Building G
C	Construction					Date : 08/02/2022	Ballinure Blackrock County Cork
T	Tender					Drawn :IOB / Checked :JC	
PL	Planning						
A	Approval						
PR	Preliminary						
Stage	Description		Rev Mark	Revision	Date	By	

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Project No. JCA IE21 272

Stage R | Drawing No. 007

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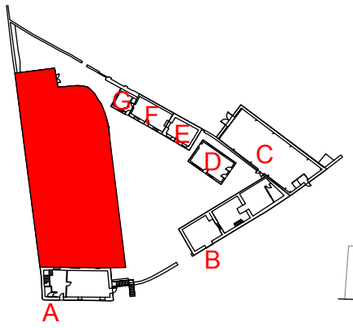
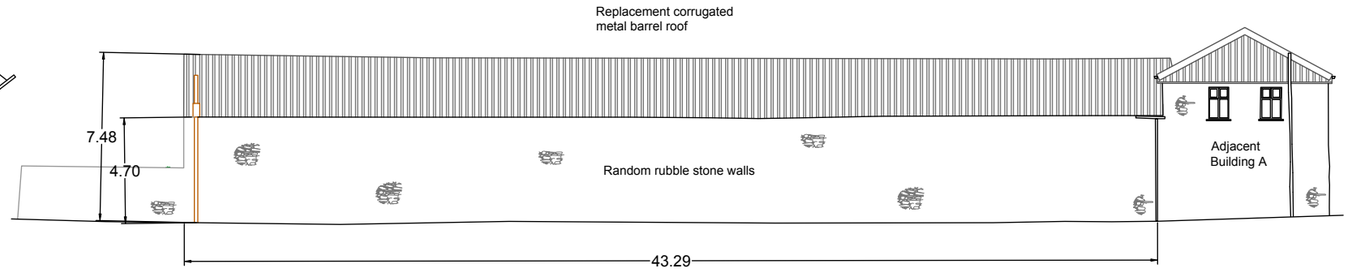
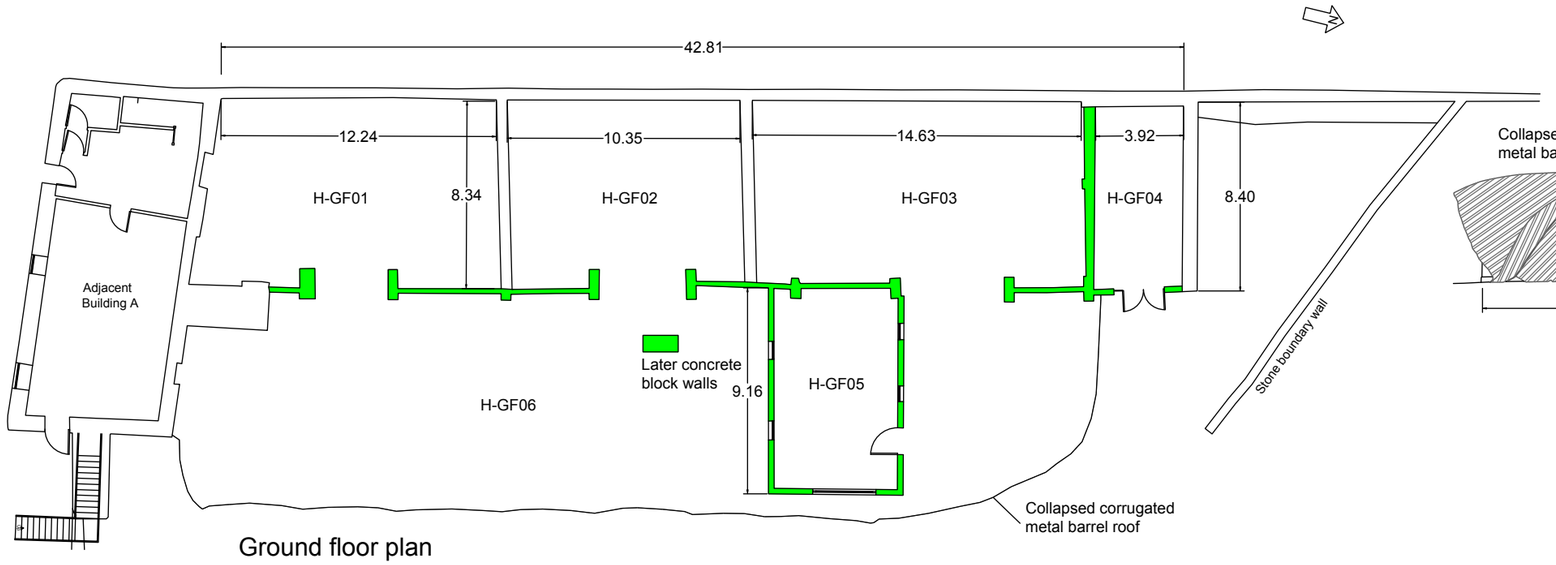


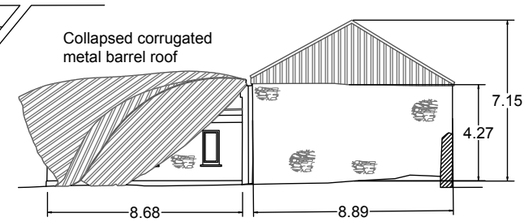


Western elevation

Western elevation



Ground floor plan



Northern elevation

0 5 10m

All measurements in metres

Eastern elevation

Interior H-GF01

Interior H-GF02

R	Record
C	Construction
T	Tender
PL	Planning
A	Approval
PR	Preliminary
Stage	Description

Rev Mark	Revision	Date	By

Scale :

Date : 08/02/2022

Drawn :IOB | Checked :JC

Bessboro Farm Building H

Ballinure
Blackrock
County Cork

Rev

Project No. JCA IE21 272

Stage R | Drawing No. 008

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ARCHAEOLOGY | CONSERVATION | HERITAGE | PLANNING

- Appendix 10.4 - Method Statement Forensic Control prepared by Aidan Harte of Munster Archaeology

- ***Note - The design of 'The Meadows as it appears in Figure 1 is subject to revision under a forthcoming LRD application.***

Method Statement: Recommended to locate and preserve unrecorded burials, under forensic archaeological control, at the proposed development (Estuary View Enterprises) Bessborough, Cork

Aidan Harte BA MA MSc MIAI MCIfA ACSFS
Forensic Archaeologist

3rd March 2022

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1. Non-Technical Summary

1.1 Aidan Harte has been requested by Estuary View Enterprises Ltd. (*i.e.* the Applicant) to prepare a forensic archaeological methodology.

1.2 The Applicant has expressed an awareness of the sensitivity of the area in which the development is proposed and therefore has requested a method statement to outline an appropriate forensic approach to locating any evidence of the existence of 20th century unmarked burials within the potential development area.

1.3 This proposed method statement adheres strictly to the standards and guidelines for Forensic Archaeologists and aims to provide clear information before and during the investigative process and presenting findings in a balanced and impartial manner (CIfA 2014, 2). Itis fully compliant with Principle 1 of the Codes of Conduct of the Chartered Institute for Archaeologists (CIfA 2019, 3).

1.4 With respect to the findings of the Mother and Baby Home Commission of Investigation (MBHCOI 2020, 34, 4), all parts of the former Bessborough estate, including this proposed development, must be considered to possibly contain unrecorded modern burials.

1.5 The methodology given here may be summarised as comprising four main stages:

1. Research and Survey
2. Forensic Archaeological Monitoring
3. Forensic Search Strategy
4. Oversight, Outcomes & Archiving

1.6 Comprehensive research and survey form an essential prerequisite to this process whereby areas of the proposed development can be considered to have a higher or lower potential for 20th century interments.

1.7 All groundworks undertaken at the proposed development must have a minimum forensic control in place (*i.e*. suitably qualified personnel engaged in a dedicated monitoring role).

1.8 Areas or zones of high potential shall have additional forensic search methods applied, prior to construction.

1.9 Should human remains be discovered, whether considered of archaeological relevance or not, the Coroner must be informed immediately.

1.10 It is recommended that a forensic approach be applied. In its simplest terms, this means that any evidence relating to burials or human remains must be identified and recorded in such a way as to maintain forensic control and thus the admissibility of that evidence in any future legal proceedings.

2. Introduction

2.1 This methodology is designed to locate any possible burials within the bounds of the proposed development, while maintaining forensic control. In essence, this means that best practice can be applied to ensure that every effort is made to identify potential burials prior to development, and should such human remains be discovered, that they are adequately protected, and a robust forensic record is available to demonstrate this.

2.2 In the absence of a predefined oversight structure (*i.e.* Coroner/An Garda Síochána/Commission *etc*.) it is necessary that the Local Authority be regularly updated as to the progress of the forensic monitoring and search. Additionally, the role of survivors, family members and other stakeholders in the overall process must also be acknowledged. Previous investigations of such sensitive sites of unmarked children's burials have shown that transparency and effective communication with survivors, and other concerned parties, is an essential feature, for trust and respect and ultimately the completion of the project (McCullagh et al. 2017; Gallen 2017; Hopwood 2011). It is recommended that a dedicated survivor liaison be appointed to act as a point of contact for such stakeholders and help address any concerns arising at any stage of the forensic search.

2.3 The first step in this methodology is that of research and geophysical survey (Stage 1). This is fundamentally a desktop review, allied with different types of ground survey, used to evaluate the development site. All parts of the development require forensic archaeological monitoring (Stage 2). However, parts of the development that have a higher likelihood of burials must be subject to targeted forensic search (Stage 3). The details of these subsequent phases (2 and 3) cannot yet be determined until all pre-works surveying and assessment have been carried out. Only then can prioritised search zones be identified.

2.4 It is recommended that the demolition of existing structures be carried out with attention to the ground surface below. Every effort should be made to limit the disturbance and compaction at ground level by heavy machinery and rubble prior to forensic examination.

2.5 As a rule, the most basic way to protect any burials is by avoiding ground disturbance in the first instance. It may be possible to restrict work activities to those parts of the site deemed essential to the development of the project – for example, green spaces not essential to the operation of the construction phase should not be used for temporary storage of materials, or access *etc*. and instead be considered as exclusion zones.

2.6 The role of the Cork City Coroner is of primary importance in the event of burials being located.

2.7 The forthcoming Certain Institutional Burials Bill is also noteworthy. Where evidence is discovered, it must be admissible under this legislation and to a standard that is aligned with this Bill.

2.8 The transparent reporting of all findings of this forensic search is essential. Furthermore, reports must be adequately archived with relevant authorities for permanent record at the completion of works.

3. Request

3.1 Estuary View Enterprises 2020 Ltd., through its Architects, requested that the author prepare this method statement for Forensic Search/Oversight at the proposed developments, 'The Meadows' and 'The Farm', Bessborough, Cork on 28th June 2021. Advice on forensic archaeological methodologies that might be applied during the phased development, with a focus on the potential for unrecorded burials, was specified.

3.2 The details of the development, for which the methodology is designed, is based on proposed development layout drawings supplied by ShipseyBarry Architects on the 17th February 2022. A composite of these drawings is shown in Figure 1.

3.3 The overall development area extends to over 6Ha., while the footprint of proposed buildings is more limited. It is assumed that ground clearance will be required at and around each proposed building and at all routes for roads and services, as a minimum.

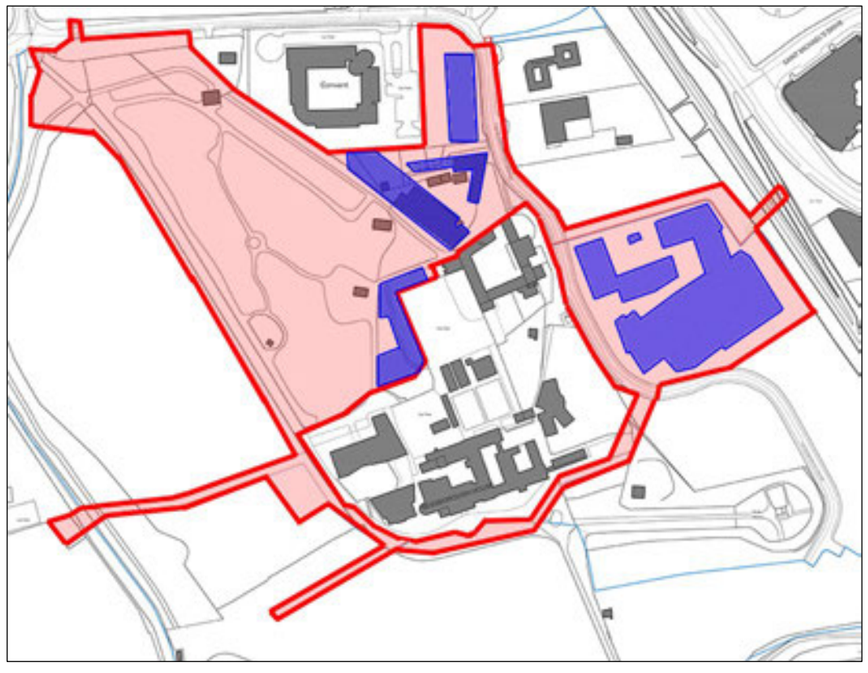


Figure 1: Outline of development area (in red) with proposed structures shown in blue (map data from ShipseyBarry Architects)

4. Previous Investigations/Background

4.1 The Convent of the Sacred Heart Mother and Baby Home at Bessborough was in operation from 1922 to 1998. During this time, 923 children who were associated with Bessborough died (MBHCOI 2020, Exec. Sum, 27), most of whom (761) died at Bessborough (*ibid*, Chapter 18A, 38).

4.2 Cursory examination of the available aerial imagery shows substantial ground disturbance in the eastern portion of this site – here referred to as 'the Meadows' – prior to June 2006 (Figure 2).

Figure 2: Aerial image of Bessborough in June 2006 showing disturbed ground at east (source: Google Earth Pro)

4.3 The Mother and Baby Homes Commission of Investigation (MBHCOI) stated that it 'i*s possible that children who died in Bessborough were buried within the grounds*' (MBHCOI 2019, 31) and that '*The Commission… recognises that it is highly likely that burials did take place in the grounds of Bessborough. The only way that this can be established is by an excavation of the entire property including those areas that are now built on.*' (MBHCOI 2020, 34, 4). It is worth reiterating that the Commission found there to be *'no significant surface evidence of systematic burial anywhere except for the congregation burial ground'* (MBHCOI 2019, 31). This surface survey was complimented by extensive documentary research, following which the Commission noted '*The third edition Ordnance Survey Map for the Bessborough area… identifies a southeast portion of the site as a "Children's Burial Ground"*'(*ibid*.).

4.4 Archaeological Test Trenching was conducted in January 2019, at the location of 'The Meadows' at the eastern side of this proposed development. This was carried out under licence (19E0003) from the National Monuments Service (Chambers 2019). This comprised six test trenches and employed the use of a metal detector (under licence 19R0001), sieving of

soil and the presence of an osteoarchaeologist. The findings of this assessment clearly indicated extensive ground disturbance across a substantial part of this portion of the site. It also found that agricultural features, such as ditches and plough furrows, could be discerned. It was concluded by the archaeologist that no evidence of burials could be identified at this location.

4.5 Pre-planning Site Investigation works undertaken in January 2022 and, while limited in scale, were monitored with a forensic control in place. The extent of disturbance was minimised, and the controlled excavations at six locations indicated no evidence of burials. These locations are the same as those at which the geotechnical information was examined and account for less than 0.07% of the total development area. However, the effectiveness of the method and techniques applied were demonstrated by the recovery of two small lithic artefacts of prehistoric date and these have now been reported to the National Museum of Ireland.

5. Stage 1: Initial Research & Survey

5.1 A desktop review must be completely in advance of other stages. While comprehensive documentary research has already been conducted by various parties, there is an obligation on the Forensic Archaeologist to have independently researched all available relevant background information on the area under investigation prior to conducting a search (CIfA 2014, 5.1(a)). This includes all documentary and cartographic material, and review of any relevant witness statements.

5.2 A detailed and accurate topographical survey must be made prior to development to permit the efficient recording of all anomalies identified in any subsequent phases of work. The position of features or specific areas of interest, derived from geophysical survey or cartographic analysis, must also be accurately positioned by GPS/GNSS survey, and marked on the ground. This action also includes the evaluation by suitably qualified practitioners prior to groundworks the surface of the proposed development, including access/egress routes, compounds and services, and all ancillary construction work (*i.e*. soakaways, drainage, temporary storage *etc*.).

5.3 Geophysical Survey – and other remote sensing techniques - should be considered for areas identified through desktop review as having potential for burials. This must happen prior to any further ground disturbance. Different techniques may be suitable at parts of the site with different ground conditions. Such techniques, such as Ground Penetrating Radar (GPR), LiDAR *etc*. may also be applied to specific liminal areas that may not have been impacted by previous ground works, such as adjacent to boundaries. All surveys must be conducted at an appropriately high resolution to produce meaningful results.

6. Stage 2: Forensic Archaeological Monitoring

6.1 All areas of the proposed development, where ground disturbance is unavoidable, must be subjected to forensic archaeological monitoring. Should a given part of the proposed development site be considered as having a higher potential for burials through initial surveys, then these must be subjected to a specific forensic search (See Section 7.

6.2 Forensic Archaeological Monitoring can be practically applied to large areas of relevant interest. The removal of topsoil and substrata by mechanical excavator across these areas should be monitored at all times by at least one Forensic Archaeologist and/or one Osteo-archaeologist/Forensic Anthropologist with previous experience of forensic controls.

6.3 This monitoring of soils must be systematically applied. The progression of the soil removal must be planned in advance to ensure complete coverage and should be regularly and accurately mapped.

6.4 Items of evidential value must be recorded *in situ* where possible, and a complete record made prior to being logged and removed. Such evidence should include modern debris that demonstrates previous land use, taphonomy, bioturbation and other site formation processes, in addition to artefactual indicators for burial (e.g., coffin nails, pins, timber fragments *etc*.). All works must stop should human remains be discovered, full forensic controls applied and the Coroner informed immediately.

6.5 This method of systematic forensic monitoring may be compared to that successfully implemented by the Commission for the Location of Victims Remains (ICLVR). While these searches were targeted at finding adult remains, the method used by ICLVR searches uses a systematic monitoring plan to ensure that all parts of a site are searched thoroughly (Knupfer, Godfrey & Hill 2017). The successful evaluation and preservation of human remains *in situ* has also been successfully implemented elsewhere (MBHCOI 2019, chapter 38b).

7. Stage 3: Forensic Search Strategy

7.1 Specified areas where there is a high potential for unrecorded burials shall be selected based on the results of desktop review and GPR or other remotely sensed data (outlined at Stage 4 in Section 5). These areas shall be the subject of Forensic Search, prior to any other development activity.

7.2 All forensic searches should be controlled by a qualified and experienced Forensic Archaeologist.

7.3 The areas identified for high potential of burials should be divided into operational zones and investigated using a priority-based approach. This strengthens the ability to preserve any such remains *in situ*.

7.4 Soil shall be removed systematically using an appropriate mechanical excavator while monitored by at least one Forensic Archaeologist and one Osteo-archaeologist/Forensic Anthropologist. This combination of specialisms is an appropriate method of evaluating disturbed (and possibly very small fragments) skeletal remains. Where items of evidential value are noted, a completed record must be made prior to it being logged and removed. In the case of human remains, no such action would take place, instead the 'scene' must be secured, and the appropriate authorities informed.

7.5 The soil removed by excavation (termed 'spoil') should be placed on a designated surface and spread out for further examination. Using detection devices, this spoil must again be searched, and a representative sample sieved for bone fragments and other evidence indicative of burial activity. This stage acts to verify the absence of evidence, as controlled sieving measures have shown to improve the recovery of human bone by as much as 53% (Mays, Vincent & Campbell 2012). Where fragmented or small material is recovered by these techniques the excavation must cease, and only once a limited area can be confidently deemed void of human remains, should the forensic excavation continue.

7.6 Personnel conducting this on-site work will at all times conduct themselves with an awareness of contamination issues (*e.g.* agreed routes of access and protective clothing) (CIfA 2014, 5.1(e)). All tools and equipment will have been decontaminated prior to arrival on site, and subsequently at regularly intervals to avoid cross-contamination throughout a given search programme. Any evidential items must be recorded and collected in adherence with forensic protocol.

7.7 Contemporaneous logs of personnel, decisions and actions, and evidence collected must be maintained. Similarly, the record of stratigraphy and features of interest are made on a contemporaneous and continuous basis.

7.8 Should human remains be identified *in situ*, the search must stop and the Coroner must be notified. A protective buffer should be implemented surrounding the potential burial. This is done to preserve the identified remains and any other possible remains in the immediate area. Machinery or vehicles must not traverse the area, until such time as the extent can be evaluated. Forensic search personnel may be deployed elsewhere on the site, albeit within a different zone.

7.9 Should fragmentary or disarticulated human remains be identified *ex situ*, then that area of excavation will cease, the area secured, and the Coroner informed immediately.

7.10 Where site facilities are required (*e.g.* welfare units, running water *etc*.), secure fencing should be necessary to prevent access by unauthorised personnel. Under warrant these sites would necessarily have 24-hour security provided. While a warrant is not is place, security is still of concern should the site be left open to contamination and interference. Additionally, the security of potential evidence and the longer-term secure storage of this material must also be considered.

8. Stage 4: Oversight & Outcomes

8.1 It is not within the remit of this methodology to countenance the removal/excavation/exhumation of any human remains discovered as a result of development. Preservation *in situ* must always be the primary consideration, however, this decision, should it arise, lies with the Cork City Coroner.

8.2 There is currently no established reporting mechanism for forensic search enacted outside of the state authorises (*i.e.* An Garda Síochána/Commissions of Investigation *etc*.), particularly where a negative result – the absence of burial – is the outcome. Therefore, the methodology employed and the reporting of such must be to the highest standard, regarded as independent and beyond reproach.

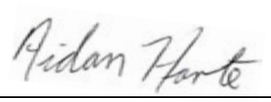
8.3 In acknowledgement of survivors, it is recommended that a dedicated liaison be appointed to help address any concerns they may have about the forensic search and subsequent reporting (Knupfer, Godfrey & Hill 2017).

8.4 It is necessary that on completion of each phase of forensic monitoring or specific forensic search, particularly where a negative result has been established, the lead Forensic Archaeologist communicates this finding in writing to specified authorities.

8.5 A full report and archive of all searches carried out and the results of same should be lodged with the Local Authority for future consultation.

9. Declaration

The information provided in this document is provided as both truthful and correct and is the express opinion of the undersigned.



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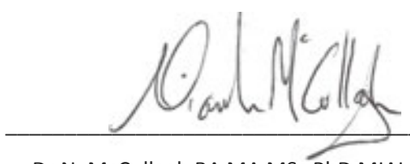
Forensic Archaeologist 3rd March 2022

Peer Reviewed



Dr N. McCullagh BA MA MSc PhD MIAI ACSFS

Forensic Archaeologist 3rd March 2022

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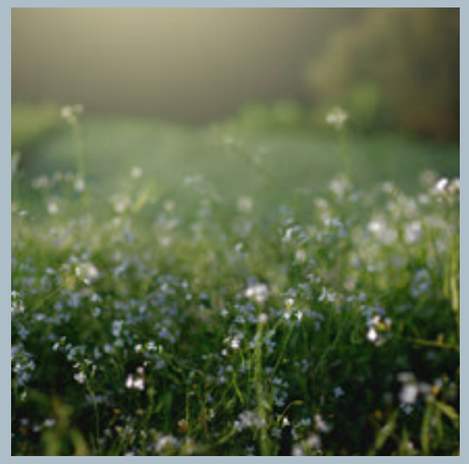

BESSBOROUGH, CORK

APPENDIX 12

Air Quality

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APPENDIX 12

Air Quality

- **Appendix 12-1 – Dust Management Plan prepared by DKPartnership**

- Appendix 12-1 – Dust Management Plan prepared by DKPartnership

Appendix 12.1
Dust Management Plan

Site management
The aim is to ensure good site management by avoiding dust becoming airborne at source. This will be done through good design and effective control strategies. At the construction planning stage, the siting of activities and storage piles will take note of the location of sensitive receptors and prevailing wind directions. As the prevailing wind is predominantly south-westerly, locating construction compounds and storage piles downwind of sensitive receptors will minimise the potential for dust nuisance to occur at sensitive receptors. The Principal Contractor or equivalent must ensure that the proposed mitigation measures are implemented, and that dust impacts and nuisance are minimised.

- It is recommended that community engagement be undertaken before works commence on site explaining the nature and duration of the works to local residents and businesses.
- The name and contact details of a person to contact regarding air quality and dust issues shall be displayed on the site boundary. A complaints register will be kept on site detailing all sources of complaints received in connection with dust nuisance or air quality concerns, together with details of any remedial actions carried out.
- Regular inspections of the site and boundary should be carried out to monitor dust, records and notes on these inspections should be logged.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
- In the event of dust nuisance occurring outside the site boundary, site activities will be reviewed, and satisfactory procedures implemented to rectify the problem.

Preparing and maintaining the site

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site if necessary.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover or fence stockpiles to prevent wind whipping.

Site roads and operating vehicles / machinery

- A speed restriction of 20 km/hr will be applied as an effective control measure for dust for on-site vehicles using unpaved site roads.
- Access gates to the site shall be located at least 10m from sensitive receptors where possible.
- Bowsers or suitable watering equipment will be available during periods of dry weather. Watering shall be conducted during sustained dry periods to ensure that unpaved areas are kept moist.
- Any hard surface roads will be swept to remove mud and aggregate materials from their surface while any unsurfaced roads shall be restricted to essential site traffic only.
- Ensure all vehicles switch off engines when stationary.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.

Site traffic on public roads

- Vehicles delivering material with potential for dust emissions to an off-site location shall be enclosed or covered with tarpaulin at all times.
- At the main construction traffic exit, a wheel wash facility shall be installed. All trucks leaving the site must pass through the wheel wash. The wheel wash will be located sufficiently far from the exit to allow trucks to ‘drip off’ prior to exit. In addition, public roads outside the site shall be regularly inspected for cleanliness and cleaned as necessary.
- Vehicles onsite shall turn off engines when not in use to prevent idling emissions.

Onsite operations

- Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays.

- Ensure an adequate water supply on the site for effective dust / particulate matter suppression.
- Use enclosed chutes and conveyors and covered skips.
- Avoid dry sweeping of large areas.
- Minimise drop heights from conveyors and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event.

Waste management

- Avoid bonfires and burning of waste materials.

Demolition activities

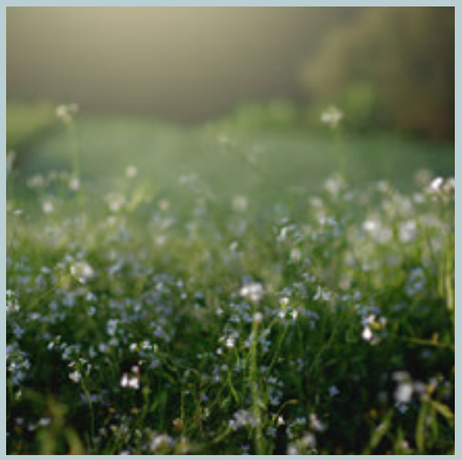
- Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Ensure effective water suppression is used during demolition operations.
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition.

Earthwork’s activities

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Only remove the cover in small areas during work and not all at once.
- During dry and windy periods, and when there is a likelihood of dust nuisance, a bowser or similar will operate to ensure moisture content is high enough to increase the stability of the soil and thus suppress dust.

Construction activities

- Ensure aggregates are stored in bunded areas and are not allowed to dry out unless this is required for a particular process.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in with suitable emission control systems to prevent escape of material and overfilling during delivery.
- For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately.
- During periods of very high winds (gales), construction activities likely to generate significant dust emissions should be postponed until the gale has subsided.



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APPENDIX 13

Climate

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APPENDIX 13

Climate

- Appendix 13.1 - DEAP DKP Energy Analysis Report prepared by DKPartnership

- Appendix 13.1 – DEAP DKP Energy Analysis Report prepared by DKPartnership

Appendix 13.1 DEAP / DKP Energy analysis summary report

DKP PART L REPORT

Space heating : Heat Pump, Hotwater heating : Heat Pump, Ventilation: CMEV

MAIN SUMMARY Part L 2022

Primary energy		TO BE ACHIEVED		ACHIEVED		Compliance	Margin
Energy performance (reduction %)		0.300	MEPC (70%)	0.283	EPC (72%)	☑	+ 6%
Annual primary energy		3,285	kWh/y	3,102	kWh/y	☑	+ 182.7
Annual primary energy / m2	A3	52.7	kWh/y/m2	A2 49.8	kWh/y/m2	☑	+ 2.93

Carbon dioxide emission				Compliance	Margin
Carbon performance coefficient	0.350	MCPC (65%)	0.187 CPC (81%)	☑	+ 47%
Annual carbon emission	745	kg/y	397 kg/y	☑	+ 347.7
Annual carbon emission / m2	11.95	kg/y/m2	6.4 kg/y/m2	☑	+ 5.58

Renewable energy				Compliance	Margin
Renewable energy ratio	0.20	RER	0.51 RER	☑	+ 153%
Annual renewable energy	1,254	kWh/y	3,167 kWh/y	☑	+ 1,913.0
Annual renewable energy / m2	20.1	kWh/y/m2	50.8 kWh/y/m2	☑	+ 30.71

MEASURES APPLIED

Exposed envelope thermal resistance		area	Part L limits	Actual dwelling	Compliance
Floors		62.3 m2	0.180 W/m2K	0.143 W/m2K	☑
Walls		50.4 m2	0.180 W/m2K	0.170 W/m2K	☑
Roofs	Na	0.0 m2	0.160 W/m2K	0.000 W/m2K	☑
Glazing	Floor fraction: 13.0%	8.1 m2	1.400 W/m2K	1.400 W/m2K	☑
Door		2.1 m2	1.400 W/m2K	1.400 W/m2K	☑
Weighted opaque elements		112.7 m2	0.180 W/m2K	0.155 W/m2K	☑
Cold bridging			0.150 W/m2K	0.080 W/m2K	☑
Airtightness		0.10 ach	3.000 m3/m2h *	2.000 m3/m2h	☑

* Airtightness design target

Building services parameters

Space heating 1:	Electricity	Heat Pump	464%	4kW, System flow temperature 50C°
Space heating 2:	n/a		n/a	
Water heating 1:	Electricity	Heat Pump	258%	4kW, 230L, 1.4kWh/d Standing loss
Water heating 2:	n/a		n/a	
Ventilation:		Whole-house extract ventilation		EI ɲ=0.5W/l/s
Lighting:		16 x LEDs/ CFL		
Glazing solar / light transmittance:		0.45 / 0.80	Glazing orientation and over shadowing. See page 6.	
Water saving measures:		None +/- 11l/s per shower		
Space / Water heating load:		SH 1,940W @ -3C° / WH 1,725W @ 150min recovery for a 45C° rise (10C°- 55C°)		
On site produced energy:		n/a		

Comments

The dwelling is compliant to Part L 2022 with a BER label of A2

Compliance to Part L has a reasonable margin of 5.6% allowing for some construction adjustments if required.

Insulation data used for U value calculations;

Wall T1 (50.4m2) : Uv = 0.170W/m2K 110mm HDPIR @ 0.022 W/mK Foil faced

Roof T1 (77.9m2) : Uv = 0.127W/m2K 150mm Rockwool @ 0.04 W/mK + 150mm Rockwool @ 0.04 W/mK

Floor T1 (62.3m2) : Uv = 0.143W/m2K 160mm EPS @ 0.031 W/mK

Hierarchy

☒ Not compliant

☒ Within 5%

☑ Compliant **

☑ Compliant

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APPENDIX 14

Population & Human Health

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APPENDIX 14

Population & Human Health

- **Appendix 14-1 –Mahon Bus Timetables**
- **Appendix 14-2 – Previous Email to Department of Education and Youth regarding School Residual Capacity**

- Appendix 14-1 – Mahon Bus Timetables

Mahon Point - Hollyhill 202

Monday - Friday (except public holidays)

Mahon Point (Omniplex)		06:30	06:50	07:10	07:30	07:50	08:10	08:30	08:50	09:10	09:30	09:50	10:10	10:30	10:50	11:10
Ringmahon Road (Riverbank)		06:31	06:51	07:11	07:31	07:51	08:11	08:31	08:51	09:11	09:31	09:51	10:11	10:31	10:51	11:11
Skehard Road (Ballinure Ave Junc)		06:33	06:53	07:13	07:33	07:53	08:13	08:33	08:53	09:13	09:33	09:53	10:13	10:33	10:53	11:13
Skehard Road (Ballinure Place)		06:33	06:53	07:13	07:33	07:54	08:14	08:34	08:54	09:14	09:34	09:53	10:13	10:33	10:53	11:13
Skehard Road (Service Station)		06:34	06:54	07:14	07:34	07:55	08:15	08:34	08:54	09:14	09:34	09:54	10:14	10:34	10:54	11:14
Church Road (Northbound)		06:36	06:56	07:16	07:36	07:57	08:17	08:36	08:56	09:16	09:36	09:56	10:16	10:36	10:56	11:16
Beaumont Drive (Marian Pk Grotto)		06:36	06:56	07:16	07:36	07:57	08:17	08:37	08:57	09:17	09:37	09:56	10:16	10:36	10:56	11:16
Beaumont Drive (Upper)		06:37	06:57	07:17	07:37	07:58	08:18	08:38	08:58	09:18	09:38	09:57	10:17	10:37	10:57	11:17
Beaumont Drive (Spar Shop)		06:38	06:58	07:18	07:38	07:59	08:19	08:38	08:58	09:18	09:38	09:58	10:18	10:38	10:58	11:18
Beaumont Drive (The Crescent Jctn)		06:38	06:58	07:18	07:38	08:00	08:20	08:39	08:59	09:19	09:39	09:58	10:18	10:38	10:58	11:18
Blackrock Road (AIB)		06:39	06:59	07:19	07:39	08:00	08:20	08:39	08:59	09:19	09:39	09:59	10:19	10:39	10:59	11:19
Blackrock Road (Ashcroft)		06:39	06:59	07:20	07:40	08:01	08:21	08:40	09:00	09:20	09:40	09:59	10:19	10:39	10:59	11:19
Blackrock Road (Janeville)		06:40	07:00	07:21	07:41	08:02	08:22	08:40	09:00	09:20	09:40	10:00	10:20	10:40	11:00	11:20
Blackrock Road (Crab Lane Jctn)		06:40	07:00	07:21	07:41	08:03	08:23	08:41	09:01	09:21	09:41	10:00	10:20	10:40	11:00	11:20
Blackrock Rd (Richmond Est)		06:41	07:01	07:22	07:42	08:03	08:23	08:41	09:01	09:21	09:41	10:01	10:21	10:41	11:01	11:21
Blackrock Road (Aston Estate)		06:41	07:01	07:22	07:42	08:04	08:24	08:42	09:02	09:22	09:42	10:01	10:21	10:41	11:01	11:21
Victoria Road (Opp Marina Park)		06:42	07:02	07:23	07:43	08:05	08:25	08:42	09:02	09:22	09:42	10:02	10:22	10:42	11:02	11:22
Victoria Road (Opp Kennedy Park)		06:42	07:02	07:23	07:43	08:06	08:26	08:43	09:03	09:23	09:43	10:02	10:22	10:42	11:02	11:22
Marina Terrace (Geraldine Place)		06:43	07:03	07:24	07:44	08:07	08:27	08:44	09:04	09:24	09:44	10:03	10:23	10:43	11:03	11:23
Eglinton Street (Opp Webworks)		06:45	07:05	07:27	07:47	08:10	08:30	08:47	09:07	09:27	09:47	10:06	10:26	10:46	11:06	11:26
Merchants Quay (Dunnes Stores A)	Arr	06:46	07:06	07:29	07:49	08:13	08:33	08:50	09:10	09:30	09:50	10:08	10:28	10:48	11:08	11:28
Merchants Quay (Dunnes Stores A)	Dep	06:30	06:50	07:10	07:33	07:53	08:17	08:37	08:54	09:14	09:34	09:54	10:13	10:33	10:53	11:13	11:33
Upper John Street (Maldron Hotel)		06:32	06:52	07:12	07:35	07:55	08:20	08:40	08:57	09:17	09:37	09:57	10:15	10:35	10:55	11:15	11:35
Cathedral Road (Wolfe Tone St Lwr)		06:33	06:53	07:13	07:36	07:56	08:22	08:42	08:59	09:19	09:39	09:59	10:16	10:36	10:56	11:16	11:36
Cathedral Road (St Vincents St)		06:34	06:54	07:14	07:37	07:57	08:24	08:44	09:00	09:20	09:40	10:00	10:17	10:37	10:57	11:17	11:37
Cathedral Road (St Brigids Rd)		06:35	06:55	07:15	07:38	07:58	08:24	08:44	09:00	09:20	09:40	10:00	10:18	10:38	10:58	11:18	11:38
Cathedral Road (O Hanlons Pharmacy)		06:35	06:55	07:15	07:38	07:58	08:25	08:45	09:01	09:21	09:41	10:01	10:18	10:38	10:58	11:18	11:38
Cathedral Road (Mt Eden Opp Church)		06:36	06:56	07:16	07:39	07:59	08:25	08:45	09:01	09:21	09:41	10:01	10:19	10:39	10:59	11:19	11:39
Bakers Rd (Opp Garda Stn)		06:36	06:56	07:16	07:39	07:59	08:26	08:46	09:02	09:22	09:42	10:02	10:19	10:39	10:59	11:19	11:39
Bakers Rd (St Marys Hospital)		06:37	06:57	07:17	07:40	08:00	08:26	08:46	09:02	09:22	09:42	10:02	10:20	10:40	11:00	11:20	11:40
Harbour View Road (Bakers Rd Junction)		06:37	06:57	07:17	07:40	08:00	08:27	08:47	09:03	09:23	09:43	10:03	10:20	10:40	11:00	11:20	11:40
Knocknaheeney Avenue		06:38	06:58	07:18	07:41	08:01	08:27	08:47	09:03	09:23	09:43	10:03	10:21	10:41	11:01	11:21	11:41
Kilmore Road (Lower)		06:38	06:58	07:18	07:41	08:01	08:28	08:48	09:04	09:24	09:44	10:04	10:22	10:42	11:02	11:22	11:42
Kilmore Rd (Kilmore Heights)		06:39	06:59	07:19	07:42	08:02	08:28	08:48	09:04	09:24	09:44	10:04	10:22	10:42	11:02	11:22	11:42
Kilmore Road (Courtown Drive Jctn)		06:39	06:59	07:19	07:42	08:02	08:29	08:49	09:05	09:25	09:45	10:05	10:23	10:43	11:03	11:23	11:43
Courtown Drive (Courtown Park)		06:40	07:00	07:20	07:43	08:03	08:29	08:49	09:05	09:25	09:45	10:05	10:23	10:43	11:03	11:23	11:43
Courtown Drive (Opp Scoil Mhuire)		06:40	07:00	07:20	07:43	08:03	08:30	08:50	09:06	09:26	09:46	10:06	10:24	10:44	11:04	11:24	11:44
Harbour View Road (TMS Com College)		06:41	07:01	07:21	07:44	08:04	08:31	08:51	09:06	09:26	09:46	10:06	10:24	10:44	11:04	11:24	11:44
Hollyhill (Hillcrest Estate)		06:41	07:01	07:21	07:44	08:04	08:31	08:51	09:07	09:27	09:47	10:07	10:25	10:45	11:05	11:25	11:45
Hollyhill (Hollywood Estate)		06:42	07:02	07:22	07:45	08:05	08:32	08:52	09:07	09:27	09:47	10:07	10:25	10:45	11:05	11:25	11:45
Hollyhill (National Learning Net)		06:42	07:02	07:22	07:46	08:06	08:33	08:53	09:08	09:28	09:48	10:08	10:26	10:46	11:06	11:26	11:46
Hollyhill (Apple)		06:48	07:08	07:28	07:52	08:12	08:40	09:00	09:15	09:35	09:55	10:15	10:32	10:52	11:12	11:32	11:52

Mahon Point - Hollyhill 202

Monday - Friday (except public holidays)

Mahon Point (Omniplex)		11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30
Ringmahon Road (Riverbank)		11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31
Skehard Road (Ballinure Ave Junc)		11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13	16:33
Skehard Road (Ballinure Place)		11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:13	16:33
Skehard Road (Service Station)		11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:54	16:14	16:34
Church Road (Northbound)		11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16	16:36
Beaumont Drive (Marian Pk Grotto)		11:36	11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:16	16:36
Beaumont Drive (Upper)		11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:58	16:18	16:38
Beaumont Drive (Spar Shop)		11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:18	16:38
Beaumont Drive (The Crescent Jctn)		11:38	11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:59	16:19	16:39
Blackrock Road (AIB)		11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:19	16:39
Blackrock Road (Ashcroft)		11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	16:00	16:20	16:40
Blackrock Road (Janeville)		11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20	16:40
Blackrock Road (Crab Lane Jctn)		11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:01	16:21	16:41
Blackrock Rd (Richmond Est)		11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:21	16:41
Blackrock Road (Aston Estate)		11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:02	16:22	16:42
Victoria Road (Opp Marina Park)		11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:03	16:23	16:43
Victoria Road (Opp Kennedy Park)		11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:03	16:23	16:43
Marina Terrace (Geraldine Place)		11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:04	16:24	16:44
Eglinton Street (Opp Webworks)		11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:07	16:27	16:47
Merchants Quay (Dunnes Stores A)	Arr	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:10	16:30	16:50
Merchants Quay (Dunnes Stores A)	Dep	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:15	16:35	16:55
Upper John Street (Maldron Hotel)		11:55	12:15	12:35	12:55	13:15	13:35	13:55	14:15	14:35	14:55	15:15	15:35	15:55	16:18	16:38	16:58
Cathedral Road (Wolfe Tone St Lwr)		11:56	12:16	12:36	12:56	13:16	13:36	13:56	14:16	14:36	14:56	15:16	15:36	15:56	16:20	16:40	17:00
Cathedral Road (St Vincents St)		11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:57	16:21	16:41	17:01
Cathedral Road (St Brigids Rd)		11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:22	16:42	17:02
Cathedral Road (O Hanlons Pharmacy)		11:58	12:18	12:38	12:58	13:18	13:38	13:58	14:18	14:38	14:58	15:18	15:38	15:58	16:22	16:42	17:02
Cathedral Road (Mt Eden Opp Church)		11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:23	16:43	17:03
Bakers Rd (Opp Garda Stn)		11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:23	16:43	17:03
Bakers Rd (St Marys Hospital)		12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:24	16:44	17:04
Harbour View Road (Bakers Rd Junction)		12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:24	16:44	17:04
Knocknaheeney Avenue		12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:25	16:45	17:05
Kilmore Road (Lower)		12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:26	16:46	17:06
Kilmore Rd (Kilmore Heights)		12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:26	16:46	17:06
Kilmore Road (Courtown Drive Jctn)		12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:27	16:47	17:07
Courtown Drive (Courtown Park)		12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:27	16:47	17:07
Courtown Drive (Opp Scoil Mhuire)		12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:28	16:48	17:08
Harbour View Road (TMS Com College)		12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:29	16:49	17:09
Hollyhill (Hillcrest Estate)		12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:29	16:49	17:09
Hollyhill (Hollywood Estate)		12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:05	16:30	16:50	17:10
Hollyhill (National Learning Net)		12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:31	16:51	17:11
Hollyhill (Apple)		12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52	16:12	16:37	16:57	17:17

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Monday - Friday (except public holidays)

Mahon Point (Omniplex)	16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:15	19:45	20:15	20:45	21:15	21:45	22:15	22:45	23:15
Ringmahon Road (Riverbank)	16:51	17:11	17:31	17:51	18:11	18:31	18:51	19:16	19:46	20:16	20:46	21:16	21:46	22:16	22:46	23:16
Skehard Road (Ballinure Ave Junc)	16:52	17:12	17:32	17:52	18:12	18:32	18:52	19:17	19:47	20:17	20:47	21:17	21:47	22:17	22:47	23:17
Skehard Road (Ballinure Place)	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:19	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18
Skehard Road (Service Station)	16:54	17:14	17:34	17:54	18:14	18:34	18:54	19:19	19:48	20:18	20:48	21:18	21:48	22:18	22:48	23:18
Church Road (Northbound)	16:56	17:16	17:36	17:56	18:16	18:36	18:56	19:21	19:50	20:20	20:50	21:20	21:50	22:20	22:50	23:20
Beaumont Drive (Marian Pk Grotto)	16:57	17:17	17:37	17:57	18:17	18:37	18:57	19:22	19:51	20:21	20:51	21:21	21:51	22:21	22:51	23:21
Beaumont Drive (Upper)	16:58	17:18	17:38	17:58	18:18	18:38	18:58	19:23	19:52	20:22	20:52	21:22	21:52	22:21	22:51	23:21
Beaumont Drive (Spar Shop)	16:59	17:19	17:39	17:58	18:18	18:38	18:58	19:23	19:52	20:22	20:52	21:22	21:52	22:22	22:52	23:22
Beaumont Drive (The Crescent Jctn)	16:59	17:19	17:39	17:59	18:19	18:39	18:59	19:24	19:53	20:23	20:53	21:23	21:53	22:22	22:52	23:22
Blackrock Road (AIB)	17:00	17:20	17:40	17:59	18:19	18:39	18:59	19:24	19:53	20:23	20:53	21:23	21:53	22:23	22:53	23:23
Blackrock Road (Ashcroft)	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:25	19:54	20:24	20:54	21:24	21:54	22:23	22:53	23:23
Blackrock Road (Janeville)	17:01	17:21	17:41	18:00	18:20	18:40	19:00	19:25	19:54	20:24	20:54	21:24	21:54	22:24	22:54	23:24
Blackrock Road (Crab Lane Jctn)	17:02	17:22	17:42	18:01	18:21	18:41	19:01	19:26	19:55	20:25	20:55	21:25	21:55	22:24	22:54	23:24
Blackrock Rd (Richmond Est)	17:02	17:22	17:42	18:01	18:21	18:41	19:01	19:26	19:55	20:25	20:55	21:25	21:55	22:25	22:55	23:25
Blackrock Road (Aston Estate)	17:03	17:23	17:43	18:02	18:22	18:42	19:02	19:27	19:56	20:26	20:56	21:26	21:56	22:25	22:55	23:25
Victoria Road (Opp Marina Park)	17:04	17:24	17:44	18:02	18:22	18:42	19:02	19:27	19:56	20:26	20:56	21:26	21:56	22:26	22:56	23:26
Victoria Road (Opp Kennedy Park)	17:04	17:24	17:44	18:03	18:23	18:43	19:03	19:28	19:57	20:27	20:57	21:27	21:57	22:26	22:56	23:26
Marina Terrace (Geraldine Place)	17:05	17:25	17:45	18:04	18:24	18:44	19:04	19:29	19:58	20:28	20:58	21:28	21:58	22:27	22:57	23:27
Eglinton Street (Opp Webworks)	17:08	17:28	17:48	18:06	18:26	18:46	19:06	19:31	20:00	20:30	21:00	21:30	22:00	22:29	22:59	23:29
Merchants Quay (Dunnes Stores A) Arr	17:11	17:31	17:51	18:08	18:28	18:48	19:08	19:33	20:02	20:32	21:02	21:32	22:02	22:30	23:00	23:30
Merchants Quay (Dunnes Stores A) Dep	17:16	17:36	17:56	18:12	18:32	18:52	19:12	19:37	20:07	20:37	21:07	21:37	22:05	22:35	23:05	23:35
Upper John Street (Maldron Hotel)	17:19	17:39	17:59	18:14	18:34	18:54	19:14	19:39	20:09	20:39	21:09	21:39	22:07	22:37	23:07	23:37
Cathedral Road (Wolfe Tone St Lwr)	17:21	17:41	18:01	18:16	18:36	18:56	19:16	19:41	20:10	20:40	21:10	21:40	22:08	22:38	23:08	23:38
Cathedral Road (St Vincents St)	17:22	17:42	18:02	18:17	18:37	18:57	19:17	19:42	20:11	20:41	21:11	21:41	22:09	22:39	23:09	23:39
Cathedral Road (St Brigids Rd)	17:23	17:43	18:03	18:18	18:38	18:58	19:18	19:43	20:12	20:42	21:12	21:42	22:10	22:39	23:09	23:39
Cathedral Road (O Hanlons Pharmacy)	17:23	17:43	18:03	18:18	18:38	18:58	19:18	19:43	20:12	20:42	21:12	21:42	22:10	22:40	23:10	23:40
Cathedral Road (Mt Eden Opp Church)	17:24	17:44	18:04	18:19	18:39	18:59	19:19	19:44	20:13	20:43	21:13	21:43	22:11	22:40	23:10	23:40
Bakers Rd (Opp Garda Stn)	17:24	17:44	18:04	18:19	18:39	18:59	19:19	19:44	20:13	20:43	21:13	21:43	22:11	22:41	23:11	23:41
Bakers Rd (St Marys Hospital)	17:25	17:45	18:05	18:20	18:40	19:00	19:20	19:45	20:14	20:44	21:14	21:44	22:12	22:41	23:11	23:41
Harbour View Road (Bakers Rd Junction)	17:25	17:45	18:05	18:20	18:40	19:00	19:20	19:45	20:14	20:44	21:14	21:44	22:12	22:42	23:12	23:42
Knocknaheeney Avenue	17:26	17:46	18:06	18:21	18:41	19:01	19:21	19:46	20:15	20:45	21:15	21:45	22:13	22:42	23:12	23:42
Kilmore Road (Lower)	17:27	17:47	18:07	18:21	18:41	19:01	19:21	19:46	20:15	20:45	21:15	21:45	22:13	22:43	23:13	23:43
Kilmore Rd (Kilmore Heights)	17:27	17:47	18:07	18:22	18:42	19:02	19:22	19:47	20:16	20:46	21:16	21:46	22:14	22:43	23:13	23:43
Kilmore Road (Courtown Drive Jctn)	17:28	17:48	18:08	18:22	18:42	19:02	19:22	19:47	20:16	20:46	21:16	21:46	22:14	22:44	23:14	23:44
Courtown Drive (Courtown Park)	17:28	17:48	18:08	18:23	18:43	19:03	19:23	19:48	20:17	20:47	21:17	21:47	22:15	22:44	23:14	23:44
Courtown Drive (Opp Scoil Mhuire)	17:29	17:49	18:09	18:23	18:43	19:03	19:23	19:48	20:17	20:47	21:17	21:47	22:15	22:45	23:15	23:45
Harbour View Road (TMS Com College)	17:29	17:49	18:09	18:24	18:44	19:04	19:24	19:49	20:18	20:48	21:18	21:48	22:16	22:45	23:15	23:45
Hollyhill (Hillcrest Estate)	17:30	17:50	18:10	18:24	18:44	19:04	19:24	19:49	20:18	20:48	21:18	21:48	22:16	22:46	23:16	23:46
Hollyhill (Hollywood Estate)	17:30	17:50	18:10	18:25	18:45	19:05	19:25	19:50	20:19	20:49	21:19	21:49	22:17	22:46	23:16	23:46
Hollyhill (National Learning Net)	17:31	17:51	18:11	18:25	18:45	19:05	19:25	19:50	20:19	20:49	21:19	21:49	22:17	22:47	23:17	23:47
Hollyhill (Apple)	17:38	17:58	18:18	18:32	18:52	19:12	19:32	19:57	20:26	20:56	21:26	21:56	22:24	22:53	23:23	23:53

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Monday - Friday (except public holidays)

Mahon Point (Omniplex)	06:40	07:00	07:20	07:40	08:00	08:20	08:40	09:00	09:20	09:40	10:00	10:20	10:40	11:00
Ringmahon Road (Riverbank)	06:41	07:01	07:21	07:41	08:01	08:21	08:41	09:01	09:21	09:41	10:01	10:21	10:41	11:01
Ringmahon Road (Opp Soccer Pitch)	06:42	07:02	07:22	07:42	08:02	08:22	08:42	09:02	09:22	09:42	10:02	10:22	10:42	11:02
Ringmahon Road (Opp GAA Pitch)	06:42	07:02	07:22	07:42	08:02	08:22	08:42	09:02	09:22	09:42	10:02	10:22	10:42	11:02
Ringmahon Road (Holy Cross School)	06:43	07:03	07:23	07:43	08:03	08:23	08:43	09:03	09:23	09:43	10:03	10:23	10:43	11:03
Ringmahon Road (Dunlocha Cottages)	06:43	07:03	07:23	07:43	08:03	08:23	08:43	09:03	09:23	09:43	10:03	10:23	10:43	11:03
Ringmahon Road (Convent Rd Jctn)	06:44	07:04	07:24	07:44	08:04	08:24	08:44	09:04	09:24	09:44	10:04	10:24	10:44	11:04
Skehard Road (Service Station)	06:44	07:04	07:24	07:44	08:04	08:24	08:44	09:04	09:24	09:44	10:04	10:24	10:44	11:04
Church Road (Northbound)	06:46	07:06	07:26	07:46	08:06	08:26	08:46	09:06	09:26	09:46	10:06	10:26	10:46	11:06
Beaumont Drive (Marian Pk Grotto)	06:47	07:07	07:27	07:47	08:07	08:27	08:47	09:07	09:27	09:47	10:07	10:27	10:47	11:07
Beaumont Drive (Upper)	06:48	07:08	07:28	07:48	08:08	08:28	08:48	09:08	09:28	09:48	10:08	10:28	10:48	11:08
Beaumont Drive (Spar Shop)	06:48	07:08	07:28	07:49	08:09	08:29	08:48	09:08	09:28	09:48	10:08	10:28	10:48	11:08
Beaumont Drive (The Crescent Jctn)	06:49	07:09	07:29	07:49	08:09	08:29	08:49	09:09	09:29	09:49	10:09	10:29	10:49	11:09
Blackrock Road (AIB)	06:49	07:09	07:29	07:50	08:10	08:30	08:49	09:09	09:29	09:49	10:09	10:29	10:49	11:09
Blackrock Road (Ashcroft)	06:50	07:10	07:30	07:51	08:11	08:31	08:50	09:10	09:30	09:50	10:10	10:30	10:50	11:10
Blackrock Road (Janeville)	06:50	07:10	07:31	07:52	08:12	08:32	08:50	09:10	09:30	09:50	10:10	10:30	10:50	11:10
Blackrock Road (Crab Lane Jctn)	06:51	07:11	07:32	07:52	08:12	08:32	08:51	09:11	09:31	09:51	10:11	10:31	10:51	11:11
Blackrock Rd (Richmond Est)	06:51	07:11	07:32	07:53	08:13	08:33	08:51	09:11	09:31	09:51	10:11	10:31	10:51	11:11
Blackrock Road (Aston Estate)	06:52	07:12	07:33	07:54	08:14	08:34	08:52	09:12	09:32	09:52	10:12	10:32	10:52	11:12
Victoria Road (Opp Marina Park)	06:52	07:12	07:33	07:55	08:15	08:35	08:52	09:12	09:32	09:52	10:12	10:32	10:52	11:12
Victoria Road (Opp Kennedy Park)	06:53	07:13	07:34	07:55	08:15	08:35	08:53	09:13	09:33	09:53	10:13	10:33	10:53	11:13
Marina Terrace (Geraldine Place)	06:53	07:13	07:35	07:56	08:16	08:36	08:54	09:14	09:34	09:54	10:14	10:34	10:54	11:14
Eglinton Street (Opp Webworks)	06:55	07:15	07:38	07:59	08:19	08:39	08:57	09:17	09:37	09:57	10:17	10:37	10:57	11:17
Merchants Quay (Dunnes Stores A) Arr		06:57	07:17	07:40	08:02	08:22	08:42	09:00	09:20	09:40	09:59	10:19	10:39	10:59	11:19
Merchants Quay (Dunnes Stores A) Dep	06:20	06:40	07:00	07:20	07:43	08:07	08:27	08:47	09:04	09:24	09:44	10:03	10:23	10:43	11:03	11:23
Upper John Street (Maldron Hotel)	06:22	06:42	07:02	07:22	07:45	08:10	08:30	08:50	09:07	09:27	09:47	10:05	10:25	10:45	11:05	11:25
Cathedral Road (Wolfe Tone St Lwr)	06:23	06:43	07:03	07:23	07:46	08:12	08:32	08:52	09:09	09:29	09:49	10:06	10:26	10:46	11:06	11:26
Cathedral Road (St Vincents St)	06:24	06:44	07:04	07:24	07:47	08:14	08:34	08:54	09:10	09:30	09:50	10:07	10:27	10:47	11:07	11:27
Cathedral Road (St Brigids Rd)	06:25	06:45	07:05	07:25	07:48	08:14	08:34	08:54	09:10	09:30	09:50	10:08	10:28	10:48	11:08	11:28
Cathedral Road (O Hanlons Pharmacy)	06:25	06:45	07:05	07:25	07:48	08:15	08:35	08:55	09:11	09:31	09:51	10:08	10:28	10:48	11:08	11:28
Cathedral Road (Mt Eden Opp Church)	06:26	06:46	07:06	07:26	07:49	08:15	08:35	08:55	09:11	09:31	09:51	10:09	10:29	10:49	11:09	11:29
Bakers Rd (Opp Garda Stn)	06:26	06:46	07:06	07:26	07:49	08:16	08:36	08:56	09:12	09:32	09:52	10:09	10:29	10:49	11:09	11:29
Bakers Rd (St Marys Hospital)	06:27	06:47	07:07	07:27	07:50	08:16	08:36	08:56	09:12	09:32	09:52	10:10	10:30	10:50	11:10	11:30
Harbour View Road (Bakers Rd Junction)	06:27	06:47	07:07	07:27	07:50	08:17	08:37	08:57	09:13	09:33	09:53	10:10	10:30	10:50	11:10	11:30
Harbour View Road (Opp Carbery Grove)	06:28	06:48	07:08	07:28	07:51	08:17	08:37	08:57	09:13	09:33	09:53	10:11	10:31	10:51	11:11	11:31
Harbour View Road (TMS Com College)	06:28	06:48	07:08	07:28	07:51	08:18	08:38	08:58	09:14	09:34	09:54	10:11	10:31	10:51	11:11	11:31
Hollyhill (Hillcrest Estate)	06:29	06:49	07:09	07:29	07:52	08:18	08:38	08:58	09:14	09:34	09:54	10:12	10:32	10:52	11:12	11:32
Hollyhill (Hollywood Estate)	06:29	06:49	07:09	07:29	07:52	08:19	08:39	08:59	09:15	09:35	09:55	10:12	10:32	10:52	11:12	11:32
Hollyhill (National Learning Net)	06:30	06:50	07:10	07:30	07:53	08:20	08:40	09:00	09:15	09:35	09:55	10:13	10:33	10:53	11:13	11:33
Hollyhill (Apple)	06:36	06:56	07:16	07:36	08:00	08:27	08:47	09:07	09:22	09:42	10:02	10:19	10:39	10:59	11:19	11:39

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Monday - Friday (except public holidays)

Mahon Point (Omniplex)		11:20	11:40	12:00	12:20	12:40	13:00	13:20	13:40	14:00	14:20	14:40	15:00	15:20	15:40	16:00	16:20
Ringmahon Road (Riverbank)		11:21	11:41	12:01	12:21	12:41	13:01	13:21	13:41	14:01	14:21	14:41	15:01	15:21	15:41	16:01	16:21
Ringmahon Road (Opp Soccer Pitch)		11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22
Ringmahon Road (Opp GAA Pitch)		11:22	11:42	12:02	12:22	12:42	13:02	13:22	13:42	14:02	14:22	14:42	15:02	15:22	15:42	16:02	16:22
Ringmahon Road (Holy Cross School)		11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:23
Ringmahon Road (Dunlocha Cottages)		11:23	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:03	16:23
Ringmahon Road (Convent Rd Jctn)		11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:24
Skehard Road (Service Station)		11:24	11:44	12:04	12:24	12:44	13:04	13:24	13:44	14:04	14:24	14:44	15:04	15:24	15:44	16:04	16:24
Church Road (Northbound)		11:26	11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:06	16:26
Beaumont Drive (Marian Pk Grotto)		11:27	11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47	15:07	15:27	15:47	16:07	16:27
Beaumont Drive (Upper)		11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:08	16:28
Beaumont Drive (Spar Shop)		11:28	11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:49	16:09	16:29
Beaumont Drive (The Crescent Jctn)		11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:09	16:29
Blackrock Road (AIB)		11:29	11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:50	16:10	16:30
Blackrock Road (Ashcroft)		11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:10	16:30
Blackrock Road (Janeville)		11:30	11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:51	16:11	16:31
Blackrock Road (Crab Lane Jctn)		11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:11	16:31
Blackrock Rd (Richmond Est)		11:31	11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:52	16:12	16:32
Blackrock Road (Aston Estate)		11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52	16:12	16:32
Victoria Road (Opp Marina Park)		11:32	11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:53	16:13	16:33
Victoria Road (Opp Kennedy Park)		11:33	11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:54	16:14	16:34
Marina Terrace (Geraldine Place)		11:34	11:54	12:14	12:34	12:54	13:14	13:34	13:54	14:14	14:34	14:54	15:14	15:34	15:55	16:15	16:35
Eglinton Street (Opp Webworks)		11:37	11:57	12:17	12:37	12:57	13:17	13:37	13:57	14:17	14:37	14:57	15:17	15:37	15:58	16:18	16:38
Merchants Quay (Dunnes Stores A)	Arr	11:39	11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	16:01	16:21	16:41
Merchants Quay (Dunnes Stores A)	Dep	11:43	12:03	12:23	12:43	13:03	13:23	13:43	14:03	14:23	14:43	15:03	15:23	15:43	16:05	16:25	16:45
Upper John Street (Maldron Hotel)		11:45	12:05	12:25	12:45	13:05	13:25	13:45	14:05	14:25	14:45	15:05	15:25	15:45	16:08	16:28	16:48
Cathedral Road (Wolfe Tone St Lwr)		11:46	12:06	12:26	12:46	13:06	13:26	13:46	14:06	14:26	14:46	15:06	15:26	15:46	16:10	16:30	16:50
Cathedral Road (St Vincents St)		11:47	12:07	12:27	12:47	13:07	13:27	13:47	14:07	14:27	14:47	15:07	15:27	15:47	16:11	16:31	16:51
Cathedral Road (St Brigids Rd)		11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:12	16:32	16:52
Cathedral Road (O Hanlons Pharmacy)		11:48	12:08	12:28	12:48	13:08	13:28	13:48	14:08	14:28	14:48	15:08	15:28	15:48	16:12	16:32	16:52
Cathedral Road (Mt Eden Opp Church)		11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:13	16:33	16:53
Bakers Rd (Opp Garda Stn)		11:49	12:09	12:29	12:49	13:09	13:29	13:49	14:09	14:29	14:49	15:09	15:29	15:49	16:13	16:33	16:53
Bakers Rd (St Marys Hospital)		11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:14	16:34	16:54
Harbour View Road (Bakers Rd Junction)		11:50	12:10	12:30	12:50	13:10	13:30	13:50	14:10	14:30	14:50	15:10	15:30	15:50	16:14	16:34	16:54
Harbour View Road (Opp Carbery Grove)		11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:15	16:35	16:55
Harbour View Road (TMS Com College)		11:51	12:11	12:31	12:51	13:11	13:31	13:51	14:11	14:31	14:51	15:11	15:31	15:51	16:15	16:35	16:55
Hollyhill (Hillcrest Estate)		11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52	16:16	16:36	16:56
Hollyhill (Hollywood Estate)		11:52	12:12	12:32	12:52	13:12	13:32	13:52	14:12	14:32	14:52	15:12	15:32	15:52	16:16	16:36	16:56
Hollyhill (National Learning Net)		11:53	12:13	12:33	12:53	13:13	13:33	13:53	14:13	14:33	14:53	15:13	15:33	15:53	16:17	16:37	16:57
Hollyhill (Apple)		11:59	12:19	12:39	12:59	13:19	13:39	13:59	14:19	14:39	14:59	15:19	15:39	15:59	16:24	16:44	17:04

Mahon Point - Hollyhill 202A

Monday - Friday (except public holidays)

Mahon Point (Omniplex)		16:40	17:00	17:20	17:40	18:00	18:20	18:40	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00
Ringmahon Road (Riverbank)		16:41	17:01	17:21	17:41	18:01	18:21	18:41	19:01	19:31	20:01	20:31	21:01	21:31	22:01	22:31	23:01
Ringmahon Road (Opp Soccer Pitch)		16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:32	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Opp GAA Pitch)		16:42	17:02	17:22	17:42	18:02	18:22	18:42	19:02	19:32	20:02	20:32	21:02	21:32	22:02	22:32	23:02
Ringmahon Road (Holy Cross School)		16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Dunlocha Cottages)		16:43	17:03	17:23	17:43	18:03	18:23	18:43	19:03	19:33	20:03	20:33	21:03	21:33	22:03	22:33	23:03
Ringmahon Road (Convent Rd Jctn)		16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:34	20:04	20:34	21:04	21:34	22:04	22:34	23:04
Skehard Road (Service Station)		16:44	17:04	17:24	17:44	18:04	18:24	18:44	19:04	19:34	20:04	20:34	21:04	21:34	22:04	22:34	23:04
Church Road (Northbound)		16:46	17:06	17:26	17:46	18:06	18:26	18:46	19:06	19:36	20:06	20:36	21:06	21:36	22:06	22:36	23:06
Beaumont Drive (Marian Pk Grotto)		16:47	17:07	17:27	17:47	18:07	18:27	18:47	19:07	19:37	20:07	20:37	21:07	21:37	22:07	22:37	23:07
Beaumont Drive (Upper)		16:48	17:08	17:28	17:48	18:08	18:28	18:48	19:08	19:38	20:08	20:38	21:08	21:38	22:07	22:37	23:07
Beaumont Drive (Spar Shop)		16:49	17:09	17:29	17:48	18:08	18:28	18:48	19:08	19:38	20:08	20:38	21:08	21:38	22:08	22:38	23:08
Beaumont Drive (The Crescent Jctn)		16:49	17:09	17:29	17:49	18:09	18:29	18:49	19:09	19:39	20:09	20:39	21:09	21:39	22:08	22:38	23:08
Blackrock Road (AIB)		16:50	17:10	17:30	17:49	18:09	18:29	18:49	19:09	19:39	20:09	20:39	21:09	21:39	22:09	22:39	23:09
Blackrock Road (Ashcroft)		16:50	17:10	17:30	17:50	18:10	18:30	18:50	19:10	19:40	20:10	20:40	21:10	21:40	22:09	22:39	23:09
Blackrock Road (Janeville)		16:51	17:11	17:31	17:50	18:10	18:30	18:50	19:10	19:40	20:10	20:40	21:10	21:40	22:10	22:40	23:10
Blackrock Road (Crab Lane Jctn)		16:52	17:12	17:32	17:51	18:11	18:31	18:51	19:11	19:41	20:11	20:41	21:11	21:41	22:10	22:40	23:10
Blackrock Rd (Richmond Est)		16:52	17:12	17:32	17:51	18:11	18:31	18:51	19:11	19:41	20:11	20:41	21:11	21:41	22:11	22:41	23:11
Blackrock Road (Aston Estate)		16:53	17:13	17:33	17:52	18:12	18:32	18:52	19:12	19:42	20:12	20:42	21:12	21:42	22:11	22:41	23:11
Victoria Road (Opp Marina Park)		16:54	17:14	17:34	17:52	18:12	18:32	18:52	19:12	19:42	20:12	20:42	21:12	21:42	22:12	22:42	23:12
Victoria Road (Opp Kennedy Park)		16:54	17:14	17:34	17:53	18:13	18:33	18:53	19:13	19:43	20:13	20:43	21:13	21:43	22:12	22:42	23:12
Marina Terrace (Geraldine Place)		16:55	17:15	17:35	17:54	18:14	18:34	18:54	19:14	19:44	20:14	20:44	21:14	21:44	22:13	22:43	23:13
Eglinton Street (Opp Webworks)		16:58	17:18	17:38	17:56	18:16	18:36	18:56	19:16	19:46	20:16	20:46	21:16	21:46	22:15	22:45	23:15
Merchants Quay (Dunnes Stores A)	Arr	17:01	17:21	17:41	17:58	18:18	18:38	18:58	19:18	19:48	20:18	20:48	21:18	21:48	22:16	22:46	23:16
Merchants Quay (Dunnes Stores A)	Dep	17:06	17:26	17:46	18:02	18:22	18:42	19:02	19:22	19:52	20:22	20:52	21:22	21:52	22:20	22:50	23:20
Upper John Street (Maldron Hotel)		17:09	17:29	17:49	18:04	18:24	18:44	19:04	19:24	19:54	20:24	20:54	21:24	21:54	22:22	22:52	23:22
Cathedral Road (Wolfe Tone St Lwr)		17:11	17:31	17:51	18:06	18:26	18:46	19:06	19:26	19:56	20:25	20:55	21:25	21:55	22:23	22:53	23:23
Cathedral Road (St Vincents St)		17:12	17:32	17:52	18:07	18:27	18:47	19:07	19:27	19:57	20:26	20:56	21:26	21:56	22:24	22:54	23:24
Cathedral Road (St Brigids Rd)		17:13	17:33	17:53	18:08	18:28	18:48	19:08	19:28	19:58	20:27	20:57	21:27	21:57	22:24	22:54	23:24
Cathedral Road (O Hanlons Pharmacy)		17:13	17:33	17:53	18:08	18:28	18:48	19:08	19:28	19:58	20:27	20:57	21:27	21:57	22:25	22:55	23:25
Cathedral Road (Mt Eden Opp Church)		17:14	17:34	17:54	18:09	18:29	18:49	19:09	19:29	19:59	20:28	20:58	21:28	21:58	22:25	22:55	23:25
Bakers Rd (Opp Garda Stn)		17:14	17:34	17:54	18:09	18:29	18:49	19:09	19:29	19:59	20:28	20:58	21:28	21:58	22:26	22:56	23:26
Bakers Rd (St Marys Hospital)		17:15	17:35	17:55	18:10	18:30	18:50	19:10	19:30	20:00	20:29	20:59	21:29	21:59	22:26	22:56	23:26
Harbour View Road (Bakers Rd Junction)		17:15	17:35	17:55	18:10	18:30	18:50	19:10	19:30	20:00	20:29	20:59	21:29	21:59	22:27	22:57	23:27
Harbour View Road (Opp Carbery Grove)		17:16	17:36	17:56	18:11	18:31	18:51	19:11	19:31	20:01	20:30	21:00	21:30	22:00	22:27	22:57	23:27
Harbour View Road (TMS Com College)		17:16	17:36	17:56	18:11	18:31	18:51	19:11	19:31	20:01	20:30	21:00	21:30	22:00	22:28	22:58	23:28
Hollyhill (Hillcrest Estate)		17:17	17:37	17:57	18:12	18:32	18:52	19:12	19:32	20:02	20:31	21:01	21:31	22:01	22:28	22:58	23:28
Hollyhill (Hollywood Estate)		17:17	17:37	17:57	18:12	18:32	18:52	19:12	19:32	20:02	20:31	21:01	21:31	22:01	22:29	22:59	23:29
Hollyhill (National Learning Net)		17:18	17:38	17:58	18:13	18:33	18:53	19:13	19:33	20:03	20:32	21:02	21:32	22:02	22:29	22:59	23:29
Hollyhill (Apple)		17:25	17:45	18:05	18:19	18:39	18:59	19:19	19:39	20:09	20:38	21:08	21:38	22:08	22:35	23:05	23:35

Jacobs Island - Cloghroe 215

Monday - Friday (except public holidays)

Jacobs Island (The Sanctuary)		07:05	07:30	08:05	08:35	09:05	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35	14:05	14:35	
Jacobs Island (Sanctuary Rd Inbound)		07:06	07:31	08:06	08:36	09:06	09:36	10:06	10:36	11:06	11:36	12:06	12:36	13:06	13:36	14:06	14:36	
Mahon Point Rd (Johnson & Perrott)		07:08	07:33	08:08	08:38	09:08	09:38	10:08	10:38	11:08	11:38	12:08	12:38	13:08	13:38	14:08	14:38	
Mahon Point Rd (Opp City Gate)		07:09	07:34	08:09	08:39	09:09	09:39	10:09	10:39	11:09	11:39	12:09	12:39	13:09	13:39	14:09	14:39	
Mahon Point Rd (Opp CSO Office)		07:10	07:35	08:10	08:40	09:10	09:40	10:10	10:40	11:10	11:40	12:10	12:40	13:10	13:40	14:10	14:40	
Skehard Road (Service Station)		07:12	07:37	08:12	08:42	09:12	09:42	10:12	10:42	11:12	11:42	12:12	12:42	13:12	13:42	14:12	14:42	
Skehard Road (Clover Lawn)		07:13	07:39	08:14	08:44	09:14	09:44	10:14	10:44	11:14	11:44	12:14	12:44	13:14	13:44	14:14	14:44	
Skehard Road (Old Cliffe)		07:13	07:39	08:14	08:44	09:14	09:44	10:14	10:44	11:14	11:44	12:14	12:44	13:14	13:44	14:14	14:44	
Skehard Rd (Park Hill Jctn)		07:14	07:40	08:15	08:45	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45	13:15	13:45	14:15	14:45	
Churchyard Lane (Silver Key Bar)		07:15	07:41	08:16	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:16	13:46	14:16	14:46	
Ballinlough Road (Carrigmore Park)		07:16	07:42	08:17	08:47	09:17	09:47	10:17	10:47	11:17	11:47	12:17	12:47	13:17	13:47	14:17	14:47	
Ballinlough Road (Opp Shrewsbury Estate)		07:17	07:43	08:18	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48	13:18	13:48	14:18	14:48	
Ballinlough Road (Sundrive Park)		07:18	07:44	08:19	08:49	09:19	09:49	10:19	10:49	11:19	11:49	12:19	12:49	13:19	13:49	14:19	14:49	
Ballinlough Road (Opp Community Centre)		07:19	07:44	08:19	08:49	09:19	09:49	10:19	10:49	11:19	11:49	12:19	12:49	13:19	13:49	14:19	14:49	
Ballinlough Road (Pic Du Jer Park)		07:19	07:45	08:20	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50	13:20	13:50	14:20	14:50	
Ballinlough Road (Opp Our Lady Church)		07:20	07:45	08:20	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50	13:20	13:50	14:20	14:50	
Ballinlough Road (Knockrea)		07:21	07:46	08:21	08:51	09:21	09:51	10:21	10:51	11:21	11:51	12:21	12:51	13:21	13:51	14:21	14:51	
Douglas Road (Bellair Junction)		07:22	07:47	08:22	08:52	09:22	09:52	10:22	10:52	11:22	11:52	12:22	12:52	13:22	13:52	14:22	14:52	
Douglas Road (St Finbarrs Hospital)		07:23	07:49	08:24	08:54	09:24	09:54	10:24	10:54	11:24	11:54	12:24	12:54	13:24	13:54	14:24	14:54	
Southern Road (Capwell Rd Junction)		07:24	07:50	08:25	08:55	09:25	09:55	10:25	10:55	11:25	11:55	12:25	12:55	13:25	13:55	14:25	14:55	
Infirmary Road (St Johns College)		07:26	07:52	08:27	08:57	09:27	09:57	10:27	10:57	11:27	11:57	12:27	12:57	13:27	13:57	14:27	14:57	
South Terrace (Opp Irish Pensions)		07:27	07:53	08:28	08:58	09:28	09:58	10:28	10:58	11:28	11:58	12:28	12:58	13:28	13:58	14:28	14:58	
George's Quay (Abbey Court House)		07:28	07:54	08:29	08:59	09:29	09:59	10:29	10:59	11:29	11:59	12:29	12:59	13:29	13:59	14:29	14:59	
Grand Parade (City Library)		07:31	07:58	08:33	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33	14:03	14:34	15:04	
St. Patrick St (Drawbridge St Jctn)	Arr			07:35	08:02	08:37	09:07	09:37	10:07	10:37	11:07	11:37	12:07	12:37	13:07	13:37	14:07	14:38	15:08
St. Patrick St (Drawbridge St Jctn)	Dep	06:35	07:05	07:38	08:08	08:43	09:12	09:42	10:12	10:42	11:12	11:42	12:12	12:42	13:12	13:42	14:12	14:43	15:13
Upper John Street (Maldron Hotel)		06:37	07:07	07:40	08:10	08:45	09:14	09:44	10:14	10:44	11:14	11:44	12:14	12:44	13:14	13:44	14:14	14:45	15:15
Watercourse Road (Blackpool Pharmacy)		06:38	07:08	07:41	08:11	08:46	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45	13:15	13:45	14:15	14:46	15:16
Watercourse Road (Blackpool Health Ctr)		06:39	07:09	07:42	08:12	08:47	09:16	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:16	13:46	14:16	14:47	15:17
Watercourse Rd (Blackpool Church)		06:39	07:09	07:43	08:13	08:48	09:17	09:47	10:17	10:47	11:17	11:47	12:17	12:47	13:17	13:47	14:17	14:48	15:18
Dublin Street (Dunnes)		06:40	07:10	07:44	08:14	08:49	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48	13:18	13:48	14:18	14:49	15:19
Dublin Street (Ulster Bank)		06:41	07:11	07:44	08:15	08:50	09:19	09:49	10:19	10:49	11:19	11:49	12:19	12:49	13:19	13:49	14:19	14:50	15:20
Red Forge Road (Sunbeam)		06:43	07:13	07:45	08:16	08:51	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50	13:20	13:50	14:20	14:51	15:21
Mallow Road (Planet Complex)		06:44	07:14	07:46	08:17	08:52	09:21	09:51	10:21	10:51	11:21	11:51	12:21	12:51	13:21	13:51	14:21	14:52	15:22
New Commons Road (Onslow Gardens Jctn)		06:46	07:16	07:49	08:18	08:53	09:22	09:52	10:22	10:52	11:22	11:52	12:22	12:52	13:22	13:52	14:22	14:53	15:23
North Point (Opp Business Park)		06:47	07:17	07:50	08:19	08:54	09:23	09:53	10:23	10:53	11:23	11:53	12:23	12:53	13:23	13:53	14:23	14:54	15:24
Sunset Place (Ring House)		06:48	07:18	07:51	08:20	08:55	09:24	09:54	10:24	10:54	11:24	11:54	12:24	12:54	13:24	13:54	14:24	14:55	15:25
Kileens (Opposite Overpass)		06:49	07:19	07:52	08:21	08:56	09:25	09:55	10:25	10:55	11:25	11:55	12:25	12:55	13:25	13:55	14:25	14:56	15:26
Blarney (Filling Station)		06:53	07:23	07:56	08:25	09:00	09:29	09:59	10:29	10:59	11:29	11:59	12:29	12:59	13:29	13:59	14:29	15:00	15:30
Blarney Village (Woolen Mills)		06:54	07:24	07:57	08:26	09:01	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:02	15:32
Blarney (St Anne's Road)		06:54	07:24	07:58	08:26	09:01	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:03	15:33
St. Annes Road (Pauls Cross)		06:56	07:26	08:00	08:28	09:03	09:32	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32	14:02	14:32	15:05	15:35
St. Annes Hill (Willison Park)		06:57	07:27	08:00	08:29	09:04	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33	14:03	14:33	15:06	15:36
St. Annes Hill (Riverview Estate)		06:57	07:27	08:01	08:29	09:04	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33	14:03	14:33	15:06	15:36
St. Annes Hill (Matanatha B&B)		06:58	07:28	08:01	08:30	09:05	09:34	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34	14:04	14:34	15:07	15:37
St. Annes Hill (Primrose Hill)		06:58	07:28	08:02	08:30	09:05	09:34	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34	14:04	14:34	15:07	15:37
Tower Village (Service Station)		06:59	07:29	08:02	08:31	09:06	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35	14:05	14:35	15:08	15:38
Tower Village (Tower Hall)		06:59	07:29	08:03	08:31	09:06	09:35	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35	14:05	14:35	15:08	15:38
Cloghroe (Fairways Terminus)		07:04	07:34	08:08	08:36	09:11	09:40	10:10	10:40	11:10	11:40	12:10	12:40	13:10	13:40	14:10	14:40	15:13	15:43

Jacobs Island - Cloghroe 215

Monday - Friday (except public holidays)

Jacobs Island (The Sanctuary)		15:05	15:30	16:00	16:25	16:55	17:25	18:00	18:30	19:05	19:35	20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Jacobs Island (Sanctuary Rd Inbound)		15:06	15:31	16:01	16:26	16:56	17:26	18:01	18:31	19:06	19:36	20:05	20:35	21:05	21:35	22:05	22:35	23:05	23:35
Mahon Point Rd (Johnson & Perrott)		15:08	15:33	16:03	16:28	16:58	17:28	18:03	18:33	19:08	19:38	20:06	20:36	21:06	21:36	22:06	22:36	23:06	23:36
Mahon Point Rd (Opp City Gate)		15:09	15:34	16:04	16:29	16:59	17:29	18:04	18:34	19:09	19:39	20:07	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Mahon Point Rd (Opp CSO Office)		15:10	15:35	16:05	16:30	17:00	17:30	18:05	18:35	19:10	19:40	20:07	20:37	21:07	21:37	22:07	22:37	23:07	23:37
Skehard Road (Service Station)		15:12	15:37	16:07	16:32	17:02	17:32	18:07	18:37	19:12	19:42	20:08	20:38	21:08	21:38	22:08	22:38	23:08	23:38
Skehard Road (Clover Lawn)		15:14	15:39	16:09	16:34	17:04	17:33	18:08	18:38	19:12	19:42	20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Road (Old Cliffe)		15:14	15:39	16:09	16:34	17:04	17:33	18:08	18:38	19:13	19:43	20:09	20:39	21:09	21:39	22:09	22:39	23:09	23:39
Skehard Rd (Park Hill Jctn)		15:15	15:40	16:10	16:35	17:05	17:34	18:09	18:39	19:14	19:44	20:10	20:40	21:10	21:40	22:10	22:40	23:10	23:40
Churchyard Lane (Silver Key Bar)		15:16	15:41	16:11	16:36	17:06	17:35	18:10	18:40	19:14	19:44	20:10	20:40	21:10	21:40	22:10	22:40	23:10	23:40
Ballinlough Road (Carrigmore Park)		15:17	15:42	16:12	16:37	17:07	17:36	18:11	18:41	19:15	19:45	20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Ballinlough Road (Opp Shrewsbury Estate)		15:18	15:43	16:13	16:38	17:08	17:37	18:12	18:42	19:15	19:45	20:11	20:41	21:11	21:41	22:11	22:41	23:11	23:41
Ballinlough Road (Sundrive Park)		15:19	15:44	16:14	16:39	17:09	17:38	18:13	18:43	19:16	19:46	20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Ballinlough Road (Opp Community Centre)		15:19	15:44	16:14	16:39	17:09	17:39	18:14	18:44	19:16	19:46	20:12	20:42	21:12	21:42	22:12	22:42	23:12	23:42
Ballinlough Road (Pic Du Jer Park)		15:20	15:45	16:15	16:40	17:10	17:39	18:14	18:44	19:17	19:47	20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ballinlough Road (Opp Our Lady Church)		15:20	15:45	16:15	16:40	17:10	17:40	18:15	18:45	19:17	19:47	20:13	20:43	21:13	21:43	22:13	22:43	23:13	23:43
Ballinlough Road (Knockrea)		15:21	15:46	16:16	16:41	17:11	17:41	18:16	18:46	19:18	19:48	20:14	20:44	21:14	21:44	22:14	22:44	23:14	23:44
Douglas Road (Bellair Junction)		15:22	15:47	16:17	16:42	17:12	17:42	18:17	18:47	19:18	19:48	20:15	20:45	21:15	21:45	22:15	22:45	23:15	23:45
Douglas Road (St Finbarrs Hospital)		15:24	15:49	16:19	16:44	17:14	17:43	18:18	18:48	19:19	19:49	20:16	20:46	21:16	21:46	22:16	22:46	23:16	23:46
Southern Road (Capwell Rd Junction)		15:25	15:50	16:20	16:45	17:15	17:44	18:19	18:49	19:20	19:50	20:17	20:47	21:17	21:47	22:17	22:47	23:17	23:47
Infirmary Road (St Johns College)		15:27	15:52	16:22	16:47	17:17	17:46	18:21	18:51	19:21	19:51	20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
South Terrace (Opp Irish Pensions)		15:28	15:53	16:23	16:48	17:18	17:47	18:22	18:52	19:22	19:52	20:18	20:48	21:18	21:48	22:18	22:48	23:18	23:48
George's Quay (Abbey Court House)		15:29	15:54	16:24	16:49	17:19	17:48	18:23	18:53	19:23	19:53	20:19	20:49	21:19	21:49	22:19	22:49	23:19	23:49
Grand Parade (City Library)		15:34	15:59	16:29	16:53	17:23	17:51	18:26	18:56	19:26	19:56	20:22	20:52	21:22	21:52	22:22	22:52	23:22	23:52
St. Patrick St (Drawbridge St Jctn)	Arr	15:38	16:03	16:33	16:57	17:27	17:55	18:30	19:00	19:30	20:00	20:24	20:54	21:24	21:54	22:24	22:54	23:24	23:54
St. Patrick St (Drawbridge St Jctn)	Dep	15:43	16:08	16:38	17:02	17:32	18:00	18:35	19:04	19:34	20:04	20:28	20:58	21:28	21:58	22:28	22:58		
Upper John Street (Maldron Hotel)		15:45	16:10	16:40	17:04	17:34	18:02	18:37	19:06	19:36	20:06	20:30	21:00	21:30	22:00	22:30	23:00		
Watercourse Road (Blackpool Pharmacy)		15:46	16:11	16:41	17:05	17:35	18:03	18:38	19:07	19:37	20:07	20:31	21:01	21:31	22:01	22:31	23:01		
Watercourse Road (Blackpool Health Ctr)		15:47	16:12	16:42	17:06	17:36	18:04	18:39	19:08	19:38	20:08	20:32	21:02	21:32	22:02	22:32	23:02		
Watercourse Rd (Blackpool Church)		15:48	16:13	16:43	17:07	17:37	18:05	18:40	19:09	19:39	20:09	20:32	21:02	21:32	22:02	22:32	23:02		
Dublin Street (Dunnes)		15:49	16:14	16:44	17:08	17:38	18:06	18:41	19:10	19:40	20:10	20:33	21:03	21:33	22:03	22:33	23:03		
Dublin Street (Ulster Bank)		15:50	16:15	16:45	17:09	17:39	18:06	18:41	19:10	19:41	20:11	20:33	21:03	21:33	22:03	22:33	23:03		
Red Forge Road (Sunbeam)		15:51	16:16	16:46	17:10	17:40	18:07	18:42	19:11	19:42	20:12	20:34	21:04	21:34	22:04	22:34	23:04		
Mallow Road (Planet Complex)		15:52	16:17	16:47	17:11	17:41	18:08	18:43	19:12	19:43	20:13	20:35	21:05	21:35	22:05	22:35	23:05		
New Commons Road (Onslow Gardens Jctn)		15:53	16:18	16:48	17:12	17:42	18:11	18:46	19:15	19:44	20:14	20:36	21:06	21:36	22:06	22:36	23:06		
North Point (Opp Business Park)		15:54	16:19	16:49	17:13	17:43	18:12	18:47	19:16	19:45	20:15	20:37	21:07	21:37	22:07	22:37	23:07		
Sunset Place (Ring House)		15:55	16:20	16:50	17:14	17:44	18:13	18:48	19:17	19:46	20:16	20:38	21:08	21:38	22:08	22:38	23:08		
Kileens (Opposite Overpass)		15:56	16:21	16:51	17:15	17:45	18:14	18:49	19:18	19:47	20:17	20:39	21:09	21:39	22:09	22:39	23:09		
Blarney (Filling Station)		16:00	16:25	16:55	17:19	17:49	18:18	18:53	19:22	19:51	20:21	20:43	21:13	21:43	22:13	22:43	23:13		
Blarney Village (Woolen Mills)		16:02	16:27	16:57	17:20	17:50	18:19	18:54	19:23	19:52	20:22	20:44	21:14	21:44	22:14	22:44	23:14		
Blarney (St Anne's Road)		16:03	16:28	16:58	17:21	17:51	18:20	18:55	19:24	19:53	20:23	20:45	21:15	21:45	22:15	22:45	23:15		
St. Annes Road (Pauls Cross)		16:05	16:30	17:00	17:23	17:53	18:22	18:57	19:26	19:55	20:25	20:46	21:16	21:46	22:16	22:46	23:16		
St. Annes Hill (Willison Park)		16:06	16:31	17:01	17:23	17:53	18:22	18:57	19:26	19:55	20:25	20:46	21:16	21:46	22:16	22:46	23:16		
St. Annes Hill (Riverview Estate)		16:06	16:31	17:01	17:24	17:54	18:23	18:58	19:27	19:56	20:26	20:47	21:17	21:47	22:17	22:47	23:17		
St. Annes Hill (Matanatha B&B)		16:07	16:32	17:02	17:24	17:54	18:23	18:58	19:27	19:56	20:26	20:47	21:17	21:47	22:17	22:47	23:17		
St. Annes Hill (Primrose Hill)		16:07	16:32	17:02	17:25	17:55	18:24	18:59	19:28	19:57	20:27	20:48	21:18	21:48	22:18	22:48	23:18		
Tower Village (Service Station)		16:08	16:33	17:03	17:25	17:55	18:24	18:59	19:28	19:57	20:27	20:48	21:18	21:48	22:18	22:48	23:18		
Tower Village (Tower Hall)		16:08	16:33	17:03	17:26	17:56	18:25	19:00	19:29	19:58	20:28	20:49	21:19	21:49	22:19	22:49	23:19		
Cloghroe (Fairways Terminus)		16:13	16:38	17:08	17:31	18:01	18:30	19:05	19:34	20:03	20:33	20:51	21:21	21:51	22:21	22:51	23:21		

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South Mall to Jacobs Island via Boreenmanna

Operating day		Monday - Friday												
South Mall (VHI House Stop A)	dep	06:45	07:15	07:45	08:15	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50
Cork City Hall		06:46	07:17	07:47	08:17	08:52	09:22	09:52	10:22	10:52	11:22	11:52	12:22	12:52
Boreenmanna Rd (Opp Bernadette Way)		06:49	07:20	07:50	08:20	08:55	09:25	09:55	10:25	10:55	11:25	11:55	12:25	12:55
Boreenmanna Road (Ashton School)		06:49	07:21	07:51	08:21	08:56	09:26	09:56	10:26	10:56	11:26	11:56	12:26	12:56
Boreenmanna Road (Opp Willow Lawn)		06:50	07:21	07:51	08:21	08:56	09:26	09:56	10:26	10:56	11:26	11:56	12:26	12:56
Boreenmanna Road (Elderwood Drive)		06:51	07:22	07:52	08:22	08:57	09:27	09:57	10:27	10:57	11:27	11:57	12:27	12:57
Boreenmanna Road (Opp Pairc U Rinn)		06:51	07:23	07:53	08:23	08:58	09:28	09:58	10:28	10:58	11:28	11:58	12:28	12:58
Churchyard Lane (Silverdale)		06:52	07:24	07:54	08:24	08:59	09:29	09:59	10:29	10:59	11:29	11:59	12:29	12:59
Skehard Road (Opposite Park Hill)		06:53	07:25	07:55	08:25	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00
Skehard Road (Ashleigh Rise)		06:53	07:25	07:55	08:25	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00
Skehard Road (Opp Clover Lawn)		06:54	07:26	07:56	08:26	09:01	09:31	10:01	10:31	11:01	11:31	12:01	12:31	13:01
Skehard Road (Clontarf Estate)		06:54	07:27	07:57	08:27	09:02	09:32	10:02	10:32	11:02	11:32	12:02	12:32	13:02
Skehard Road (Opp Service Station)		06:55	07:28	07:58	08:28	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03
Mahon Point Rd (CSO Office)		06:56	07:29	07:59	08:29	09:04	09:34	10:04	10:34	11:04	11:34	12:04	12:34	13:04
Mahon Point Rd (City Gate)		06:57	07:31	08:01	08:31	09:06	09:36	10:05	10:35	11:05	11:35	12:05	12:35	13:05
Mahon Point Rd (Mahon Point Centre)		06:58	07:32	08:02	08:32	09:07	09:37	10:06	10:36	11:06	11:36	12:06	12:36	13:06
Jacobs Island (Sanctuary Rd Outbound)		07:00	07:34	08:04	08:34	09:09	09:39	10:08	10:38	11:08	11:38	12:08	12:38	13:08
Jacobs Island (The Sanctuary)	arr	07:05	07:39	08:09	08:39	09:16	09:46	10:15	10:45	11:15	11:45	12:15	12:45	13:15

Operating day		Monday - Friday									
South Mall (VHI House Stop A)	dep	13:20	13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:20
Cork City Hall		13:22	13:52	14:22	14:52	15:22	15:52	16:22	16:52	17:22	17:52	18:22
Boreenmanna Rd (Opp Bernadette Way)		13:25	13:55	14:25	14:55	15:25	15:55	16:26	16:56	17:26	17:56	18:26
Boreenmanna Road (Ashton School)		13:26	13:56	14:26	14:56	15:26	15:56	16:27	16:57	17:27	17:57	18:27
Boreenmanna Road (Opp Willow Lawn)		13:26	13:56	14:26	14:56	15:26	15:56	16:28	16:58	17:28	17:58	18:27
Boreenmanna Road (Elderwood Drive)		13:27	13:57	14:27	14:57	15:27	15:57	16:29	16:59	17:29	17:59	18:28
Boreenmanna Road (Opp Pairc U Rinn)		13:28	13:58	14:28	14:58	15:28	15:58	16:29	16:59	17:29	17:59	18:29
Churchyard Lane (Silverdale)		13:29	13:59	14:29	14:59	15:29	15:59	16:31	17:01	17:31	18:01	18:30
Skehard Road (Opposite Park Hill)		13:30	14:00	14:30	15:00	15:30	16:00	16:32	17:02	17:32	18:02	18:31
Skehard Road (Ashleigh Rise)		13:31	14:01	14:31	15:01	15:31	16:01	16:32	17:02	17:32	18:02	18:32
Skehard Road (Opp Clover Lawn)		13:32	14:02	14:32	15:02	15:32	16:02	16:33	17:03	17:33	18:03	18:33
Skehard Road (Clontarf Estate)		13:33	14:03	14:33	15:03	15:33	16:03	16:34	17:04	17:34	18:04	18:34
Skehard Road (Opp Service Station)		13:34	14:04	14:34	15:04	15:34	16:04	16:35	17:05	17:35	18:05	18:35
Mahon Point Rd (CSO Office)		13:35	14:05	14:35	15:05	15:35	16:05	16:37	17:07	17:37	18:07	18:36
Mahon Point Rd (City Gate)		13:36	14:06	14:36	15:06	15:36	16:06	16:38	17:08	17:38	18:08	18:37
Mahon Point Rd (Mahon Point Centre)		13:38	14:08	14:38	15:08	15:38	16:08	16:41	17:11	17:41	18:11	18:39
Jacobs Island (Sanctuary Rd Outbound)		13:40	14:10	14:40	15:10	15:40	16:10	16:43	17:13	17:43	18:13	18:41
Jacobs Island (The Sanctuary)	arr	13:45	14:15	14:45	15:15	15:45	16:15	16:48	17:18	17:48	18:18	18:46

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 22.09.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

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Jacobs Island to South Mall via Boreenmanna

Operating day		Monday - Friday												
Jacobs Island (The Sanctuary)	dep	07:15	07:45	08:20	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50	13:20
Jacobs Island (Sanctuary Rd Inbound)		07:16	07:46	08:21	08:51	09:21	09:51	10:21	10:51	11:21	11:51	12:21	12:51	13:21
Mahon Point Rd (Johnson & Perrott)		07:19	07:49	08:24	08:54	09:24	09:53	10:23	10:53	11:23	11:53	12:23	12:53	13:23
Mahon Point Rd (Opp City Gate)		07:21	07:51	08:26	08:56	09:26	09:54	10:24	10:54	11:24	11:54	12:24	12:54	13:24
Mahon Point Rd (Opp CSO Office)		07:22	07:52	08:27	08:57	09:27	09:55	10:25	10:55	11:25	11:55	12:25	12:55	13:25
Skehard Road (Service Station)		07:23	07:53	08:28	08:58	09:28	09:56	10:26	10:56	11:26	11:56	12:26	12:56	13:26
Skehard Road (Clover Lawn)		07:26	07:56	08:31	09:01	09:31	09:58	10:28	10:58	11:28	11:58	12:28	12:58	13:28
Skehard Road (Old Cliffe)		07:27	07:57	08:32	09:02	09:32	09:59	10:29	10:59	11:29	11:59	12:29	12:59	13:29
Skehard Road (Park Hill Jctn)		07:27	07:57	08:32	09:02	09:32	09:59	10:29	10:59	11:29	11:59	12:29	12:59	13:29
Churchyard Lane (Silver Key Bar)		07:29	07:59	08:34	09:04	09:34	10:01	10:31	11:01	11:31	12:01	12:31	13:01	13:31
Boreenmanna Road (Pairc Ui Rinn)		07:30	08:00	08:35	09:05	09:35	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32
Boreenmanna Road (Opp Elderwood)		07:31	08:01	08:36	09:06	09:36	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32
Boreenmanna Road (Opp Bellfield)		07:32	08:02	08:37	09:07	09:37	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33
Boreenmanna Road (Willow Lawn)		07:33	08:03	08:38	09:08	09:38	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34
Boreenmanna Road (Yorkboro)		07:35	08:05	08:40	09:10	09:40	10:05	10:35	11:05	11:35	12:05	12:35	13:05	13:35
South Terrace		07:40	08:10	08:45	09:15	09:45	10:09	10:39	11:09	11:39	12:09	12:39	13:09	13:39
Georges Quay		07:42	08:12	08:47	09:17	09:47	10:11	10:41	11:11	11:41	12:11	12:41	13:11	13:41
South Mall (VHI House Stop A)	arr	07:43	08:13	08:48	09:18	09:48	10:16	10:46	11:16	11:46	12:16	12:46	13:16	13:46

Operating day		Monday - Friday										
Jacobs Island (The Sanctuary)	dep	13:50	14:20	14:50	15:20	15:50	16:20	16:50	17:20	17:50	18:20	18:50
Jacobs Island (Sanctuary Rd Inbound)		13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:21	17:51	18:21	18:51
Mahon Point Rd (Johnson & Perrott)		13:53	14:23	14:53	15:23	15:53	16:23	16:53	17:23	17:53	18:23	18:53
Mahon Point Rd (Opp City Gate)		13:54	14:24	14:54	15:25	15:55	16:25	16:55	17:25	17:55	18:25	18:55
Mahon Point Rd (Opp CSO Office)		13:55	14:25	14:55	15:26	15:56	16:26	16:56	17:26	17:56	18:26	18:56
Skehard Road (Service Station)		13:56	14:26	14:56	15:27	15:57	16:27	16:57	17:27	17:57	18:27	18:57
Skehard Road (Clover Lawn)		13:58	14:28	14:58	15:30	16:00	16:30	17:00	17:30	18:00	18:30	18:59
Skehard Road (Old Cliffe)		13:59	14:29	14:59	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Skehard Road (Park Hill Jctn)		13:59	14:29	14:59	15:31	16:01	16:31	17:01	17:31	18:01	18:31	19:00
Churchyard Lane (Silver Key Bar)		14:01	14:31	15:01	15:32	16:02	16:32	17:02	17:32	18:02	18:32	19:02
Boreenmanna Road (Pairc Ui Rinn)		14:02	14:32	15:02	15:33	16:03	16:33	17:03	17:33	18:03	18:33	19:03
Boreenmanna Road (Opp Elderwood)		14:02	14:32	15:02	15:34	16:04	16:34	17:04	17:34	18:04	18:34	19:03
Boreenmanna Road (Opp Bellfield)		14:03	14:33	15:03	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:04
Boreenmanna Road (Willow Lawn)		14:04	14:34	15:04	15:35	16:05	16:35	17:05	17:35	18:05	18:35	19:05
Boreenmanna Road (Yorkboro)		14:05	14:35	15:05	15:37	16:07	16:37	17:07	17:37	18:07	18:37	19:06
South Terrace		14:09	14:39	15:09	15:41	16:11	16:41	17:11	17:41	18:11	18:41	19:10
Georges Quay		14:11	14:41	15:11	15:43	16:13	16:43	17:13	17:43	18:13	18:43	19:12
South Mall (VHI House Stop A)	arr	14:16	14:46	15:16	15:48	16:18	16:48	17:18	17:48	18:18	18:48	19:17

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 22.09.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

219 MTU to Ringmahon via Togher and Douglas

Operating day		Monday - Friday												
MTU	dep	07:00	07:55	09:05	10:05	11:05	12:05	13:00	14:00	15:05	16:00	17:05	18:10	19:00
Rossa Avenue (Allendale Avenue Jctn)		07:01	07:56	09:06	10:06	11:06	12:06	13:01	14:01	15:06	16:01	17:06	18:11	19:01
Curraheen Road (Spioraid Naoimh)		07:02	07:57	09:07	10:07	11:07	12:07	13:02	14:02	15:07	16:02	17:07	18:12	19:02
Curraheen Road (Deanshall)		07:02	07:58	09:07	10:07	11:07	12:07	13:02	14:03	15:08	16:03	17:08	18:12	19:02
Curraheen Road (Westgate Rd Jctn)		07:03	07:59	09:08	10:08	11:08	12:08	13:03	14:03	15:09	16:04	17:09	18:13	19:03
Curraheen Road (Firgrove Gardens)		07:04	08:00	09:09	10:09	11:09	12:09	13:04	14:04	15:10	16:05	17:10	18:13	19:03
CUH (Bishopstown Rd)		07:07	08:04	09:12	10:12	11:12	12:13	13:08	14:08	15:14	16:10	17:14	18:17	19:07
Wilton Shopping Centre		07:08	08:05	09:13	10:13	11:14	12:14	13:09	14:10	15:16	16:12	17:16	18:18	19:08
Harley Court		07:11	08:08	09:15	10:16	11:17	12:18	13:13	14:13	15:20	16:16	17:20	18:22	19:12
Eagle Valley		07:13	08:10	09:17	10:17	11:18	12:19	13:14	14:15	15:22	16:18	17:21	18:23	19:13
Fernwood Estate		07:14	08:11	09:18	10:18	11:19	12:20	13:15	14:16	15:23	16:19	17:22	18:24	19:14
Sandowne		07:15	08:13	09:19	10:19	11:20	12:21	13:16	14:16	15:24	16:20	17:23	18:25	19:15
Togher Church		07:17	08:14	09:20	10:20	11:21	12:22	13:17	14:18	15:25	16:21	17:24	18:26	19:16
Deanrock		07:18	08:16	09:22	10:21	11:22	12:23	13:18	14:19	15:27	16:23	17:25	18:27	19:17
Deanwood Avenue		07:19	08:17	09:23	10:22	11:23	12:24	13:19	14:20	15:27	16:24	17:26	18:27	19:17
Edward Walsh road		07:21	08:18	09:24	10:24	11:25	12:26	13:20	14:21	15:29	16:25	17:27	18:28	19:18
Earlwood Estate		07:22	08:19	09:25	10:25	11:26	12:27	13:21	14:22	15:30	16:26	17:28	18:29	19:19
Pearse Road (Ballyphehane)		07:24	08:21	09:27	10:27	11:28	12:29	13:27	14:28	15:36	16:29	17:30	18:31	19:21
Pearse Road (Friars Walk Junction)		07:25	08:22	09:28	10:28	11:29	12:30	13:29	14:30	15:37	16:30	17:31	18:32	19:22
Pearse Road (Kent Road Junction)		07:25	08:23	09:29	10:29	11:30	12:31	13:30	14:31	15:38	16:31	17:32	18:33	19:23
Pearse Road (O Growney Crescent)		07:26	08:24	09:30	10:29	11:30	12:32	13:30	14:31	15:38	16:32	17:33	18:33	19:23
Curragh Road Junction		07:27	08:25	09:31	10:30	11:31	12:33	13:31	14:32	15:40	16:33	17:34	18:34	19:24
Curragh Rd (Turners Cross Stadium)		07:27	08:26	09:32	10:31	11:32	12:33	13:32	14:33	15:40	16:34	17:35	18:35	19:25
South Douglas Road (Skabeg)		07:29	08:30	09:34	10:33	11:34	12:35	13:34	14:35	15:43	16:36	17:37	18:37	19:26
South Douglas Road (Opp Heatherton)		07:30	08:31	09:35	10:34	11:35	12:36	13:35	14:36	15:44	16:38	17:39	18:38	19:27
South Douglas Road (Loreto Park)		07:31	08:32	09:35	10:34	11:35	12:37	13:35	14:36	15:45	16:38	17:39	18:38	19:28
South Douglas Road (Rathmore Lawn)		07:32	08:33	09:36	10:35	11:36	12:38	13:36	14:37	15:46	16:39	17:40	18:39	19:29
South Douglas Road (Dunmahon)		07:32	08:33	09:37	10:36	11:37	12:38	13:37	14:38	15:47	16:40	17:41	18:40	19:29
Douglas Road (Douglas Community School)		07:33	08:34	09:38	10:37	11:38	12:39	13:38	14:39	15:49	16:42	17:42	18:41	19:30
Douglas Village West (Opp Dinos)		07:34	08:36	09:39	10:38	11:39	12:41	13:39	14:40	15:51	16:44	17:43	18:42	19:31
Church Street (Shopping Ctr South)		07:34	08:37	09:40	10:38	11:39	12:41	13:40	14:41	15:51	16:44	17:44	18:43	19:32
Douglas Shopping Centre		07:36	08:41	09:42	10:40	11:41	12:43	13:42	14:43	15:53	16:46	17:46	18:45	19:33
Well Rd (Entrance to Ardmahon Estate)		07:39	08:45	09:45	10:42	11:44	12:46	13:46	14:46	15:58	16:50	17:50	18:48	19:36
Well Rd (Before Lovets)		07:40	08:45	09:45	10:43	11:44	12:47	13:46	14:47	15:58	16:51	17:50	18:48	19:36
Skehard Road (Opposite Park Hill)		07:41	08:47	09:47	10:44	11:46	12:49	13:48	14:48	16:00	16:53	17:52	18:50	19:38
Skehard Road (Ashleigh Rise)		07:42	08:48	09:48	10:45	11:46	12:49	13:48	14:49	16:00	16:53	17:52	18:50	19:38
Skehard Road (Opp Clover Lawn)		07:42	08:48	09:48	10:45	11:47	12:50	13:49	14:50	16:01	16:54	17:53	18:51	19:39
Skehard Road (Clontarf Estate)		07:43	08:49	09:49	10:46	11:48	12:51	13:50	14:51	16:02	16:55	17:54	18:52	19:39
Skehard Road (Opp Service Station)		07:44	08:50	09:50	10:47	11:49	12:52	13:51	14:52	16:03	16:56	17:55	18:53	19:40
Skehard Road (Opp CSO Office)		07:45	08:51	09:51	10:48	11:50	12:53	13:52	14:53	16:04	16:57	17:56	18:54	19:41
Ringmahon Road (Meadow Grove Est)		07:46	08:52	09:52	10:49	11:51	12:54	13:53	14:54	16:05	16:58	17:57	18:55	19:42
Ringmahon Road (Opp Garda Stn)		07:46	08:53	09:53	10:49	11:51	12:54	13:53	14:54	16:06	16:59	17:58	18:55	19:43
Ringmahon Road (Opp Holy Cross)		07:48	08:53	09:53	10:50	11:52	12:55	13:54	14:55	16:07	16:59	17:58	18:56	19:43
Ringmahon Road (GAA Pitch)		07:49	08:54	09:54	10:50	11:53	12:56	13:55	14:56	16:08	17:00	17:59	18:57	19:44
Ringmahon Road (Soccer Pitch)		07:49	08:55	09:55	10:51	11:53	12:57	13:56	14:57	16:08	17:01	18:00	18:57	19:44
Ringmahon Road (Opp Cemetery)		07:50	08:55	09:55	10:51	11:54	12:57	13:56	14:57	16:09	17:01	18:00	18:58	19:45
St Micheals Drive (Mahon Point SC)		07:51	08:57	09:57	10:53	11:55	12:59	13:58	14:59	16:10	17:03	18:02	18:59	19:46
St Micheals Drive (City Gate)		07:52	08:57	09:57	10:53	11:56	12:59	13:58	14:59	16:11	17:04	18:02	19:00	19:47
Mahon Point Rd (Opp City Gate)	arr	07:54	09:00	10:00	10:57	12:00	13:01	14:01	15:01	16:12	17:06	18:04	19:02	19:49

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

Valid from 24.11.2025 **Use your TFI Leap Card to avail of cheaper fares and free interchange between routes**

219 Ringmahon to MTU via Douglas and Togher

Operating day		Monday - Friday												
Ringmahon Road (Opp Garda Stn)	dep	07:00									15:57			
Ringmahon Road (Opp Holy Cross)		07:01									15:59			
Ringmahon Road (GAA Pitch)		07:02									16:00			
Ringmahon Road (Soccer Pitch)		07:03									16:00			
Ringmahon Road (Opp Cemetery)		07:03									16:01			
St Micheals Drive (Mahon Point SC)		07:05									16:02			
St Micheals Drive (City Gate)		07:07									16:03			
Mahon Point Rd (Opp City Gate)		07:08	07:55	09:05	10:05	11:05	12:05	13:05	14:05	15:05	16:05	17:10	18:05	
Mahon Point Rd (Opp CSO Office)		07:09	07:56	09:06	10:06	11:06	12:06	13:06	14:06	15:06	16:06	17:11	18:06	
Skehard Road (Service Station)		07:10	07:56	09:06	10:06	11:06	12:06	13:06	14:07	15:06	16:07	17:12	18:06	
Skehard Road (Clover Lawn)		07:12	07:59	09:09	10:09	11:09	12:09	13:09	14:10	15:09	16:10	17:15	18:08	
Skehard Road (Old Cliffe)		07:13	08:00	09:10	10:09	11:09	12:10	13:10	14:11	15:10	16:11	17:16	18:09	
Skehard Road (Park Hill Jctn)		07:14	08:00	09:10	10:10	11:10	12:10	13:10	14:11	15:10	16:11	17:17	18:09	
Well Road (Templenoe House)		07:15	08:02	09:12	10:11	11:11	12:12	13:12	14:13	15:12	16:13	17:19	18:11	
Douglas Village East (Service Station)		07:18	08:05	09:15	10:14	11:14	12:15	13:15	14:17	15:15	16:17	17:22	18:14	
Douglas (Church St Amenity Park)		07:19	08:06	09:16	10:15	11:15	12:17	13:17	14:18	15:17	16:18	17:24	18:15	
Douglas Village West (Dino's)		07:20	08:08	09:17	10:16	11:16	12:18	13:18	14:19	15:18	16:19	17:25	18:16	
South Douglas Road (Opp Community Sch)		07:21	08:10	09:18	10:17	11:17	12:20	13:20	14:20	15:20	16:20	17:26	18:17	
South Douglas Road (Kay Black Florists)		07:22	08:11	09:19	10:17	11:18	12:20	13:20	14:21	15:20	16:21	17:27	18:18	
South Douglas Road (Glencurrig)		07:22	08:11	09:19	10:18	11:18	12:21	13:21	14:21	15:21	16:21	17:27	18:18	
South Douglas Road (Kevin O Leary Gar)		07:23	08:12	09:20	10:19	11:19	12:22	13:22	14:22	15:22	16:22	17:28	18:19	
South Douglas Road (Opposite Loreto Park)		07:24	08:13	09:21	10:19	11:20	12:22	13:22	14:23	15:22	16:23	17:29	18:20	
South Douglas Road (Cross Douglas Rd)		07:24	08:13	09:21	10:20	11:20	12:23	13:23	14:23	15:23	16:23	17:29	18:20	
South Douglas Road (Sunview Court)		07:25	08:15	09:22	10:21	11:21	12:24	13:24	14:25	15:24	16:25	17:30	18:21	
Curragh Road (Credit Union)		07:27	08:17	09:24	10:22	11:23	12:25	13:26	14:26	15:26	16:26	17:32	18:23	
Curragh Rd (Opp Turners Cross Stad)		07:27	08:18	09:24	10:23	11:23	12:26	13:26	14:27	15:26	16:27	17:32	18:23	
Pearse Road (A.I.B)		07:28	08:19	09:25	10:24	11:24	12:27	13:28	14:28	15:28	16:28	17:34	18:24	
Pearse Road (Irish Independent Park)		07:29	08:19	09:26	10:24	11:25	12:27	13:28	14:29	15:28	16:29	17:34	18:25	
Pearse Road (Connolly Road Junction)		07:29	08:20	09:26	10:25	11:26	12:28	13:29	14:30	15:29	16:30	17:35	18:26	
Pearse Road (Clarkes Road Junction)		07:30	08:20	09:27	10:25	11:26	12:28	13:30	14:30	15:30	16:30	17:36	18:26	
Pearse Road (Pearse Square Shops)		07:31	08:21	09:27	10:31	11:32	12:29	13:31	14:31	15:31	16:31	17:42	18:27	
Earlwood Estate		07:33	08:23	09:29	10:35	11:35	12:31	13:33	14:33	15:33	16:33	17:44	18:29	
Edward Walsh Road		07:34	08:24	09:30	10:36	11:36	12:32	13:34	14:34	15:34	16:34	17:45	18:30	
Deanwood Avenue		07:35	08:25	09:31	10:37	11:37	12:33	13:36	14:36	15:36	16:36	17:47	18:32	
Tramore Road Junction		07:35	08:26	09:32	10:37	11:37	12:34	13:37	14:37	15:37	16:37	17:47	18:32	
Togher Church		07:36	08:27	09:33	10:38	11:38	12:35	13:38	14:38	15:38	16:38	17:49	18:33	
Sandowne		07:37	08:28	09:34	10:39	11:39	12:36	13:39	14:39	15:39	16:39	17:50	18:34	
Fernwood Close		07:38	08:29	09:34	10:40	11:40	12:37	13:40	14:40	15:40	16:40	17:50	18:35	
Eagle Valley		07:39	08:30	09:36	10:41	11:41	12:38	13:41	14:41	15:41	16:41	17:52	18:36	
Harley Court		07:40	08:31	09:37	10:41	11:41	12:39	13:42	14:42	15:42	16:42	17:53	18:37	
Wilton Shopping Centre East		07:43	08:34	09:40	10:44	11:44	12:42	13:45	14:45	15:45	16:45	17:56	18:40	
Bishopstown Road (Wilton Centre)		07:44	08:36	09:41	10:46	11:46	12:44	13:47	14:47	15:47	16:47	17:57	18:41	
Bishopstown Road (Opp Garda Station)		07:46	08:37	09:42	10:47	11:47	12:46	13:49	14:49	15:49	16:49	18:00	18:43	
Curraheen Road (Opp TSB Bank)		07:46	08:38	09:43	10:48	11:48	12:47	13:50	14:50	15:50	16:50	18:01	18:44	
Curraheen Road (The Outpost)		07:47	08:39	09:44	10:49	11:49	12:48	13:51	14:51	15:51	16:51	18:02	18:45	
Curraheen Road (opp Deanshall)		07:47	08:40	09:44	10:49	11:50	12:48	13:52	14:52	15:52	16:52	18:02	18:45	
Melbourne Rd (Glencairn Park)		07:49	08:42	09:45	10:50	11:51	12:50	13:54	14:53	15:54	16:53	18:03	18:46	
MTU	arr	07:51	08:45	09:48	10:54	11:53	12:52	13:56	14:57	15:56	16:57	18:05	18:48	

*** The TFI Live App allows you to access live real time departure and journey planning information across the Transport for Ireland (TFI) network**

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- Appendix 14-2 – Email to Department of Education and Youth

- Note this communication relates to a previous attempt to obtain school residual capacity information from the Department of Education in relation to a 2022 SHD application on-site (ABP-313206-22).

From: Deirdre Tobin | HW Planning <dtobin@hwplanning.ie>
Sent: Monday 20 September 2021 12:42
To: Hanlon, Alan <Alan_Hanlon@education.gov.ie>
Cc: Conor Frehill | HW Planning <cfrehill@hwplanning.ie>
Subject: Strategic Housing Development Cork City

Hi Alan,

We are preparing 2 strategic housing development applications for Bessborough, Ballinure, Blackrock, Cork with phase 1 comprising 283 apartment units and phase 2 comprising 183 apartment units. It is also envisaged that there will be a subsequent Phase 3 application, though this is in an early design stage at the moment. We are in process of submitting the pre-consultation application for Phase 1 and 2 to an Board Pleanala and anticipate that a Schools Demand Assessment will be required. As with my previous email to you in August 2020 in relation to an SHD in Ardrostig, we are hoping to incorporate some form of capacity numbers in addition to just the enrolment numbers available from the Department's website. In our previous communication you confirmed that the Department carries out its own reviews of schools. Data from such reviews may indicate school capacity at various levels and can prove useful in the assessment of potential future school requirements. Would you be in a position to provide us with any such information, generalised or specific, that could inform our report?

Many thanks

Deirdre

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