KNOCKBROGAN EIAR

VOLUME II EIAR| Part 1

awnconsulting
BRIAN O KENNEDY & ASSOCIATES LTD ENGINEERS + ARCHITECTS
MODEL WORKS
HEGSONS Design Consultancy limited
MALONE O'REGAN ENVIRONMENTAL
McCutcheon Halley CHARTERED PLANNING CONSULTANTS

CHAPTER ONE

INTRODUCTION

CHAPTER 1 INTRODUCTION

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CHAPTER 1 | INTRODUCTION TO THE EIAR

This Environmental Impact Assessment Report (EIAR) sets out the results of the environmental assessments which have been completed for the proposed development to inform the planning consent process.

The assessment has been completed as a statutory environment assessment. The environmental impact assessment process has been completed in line with Directive2014/52/EU, based on the guidance presented in the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2022).

EIA is a process for anticipating the effects on the environment caused by a development. The document prepared by the developer of the proposed development is termed the EIAR. Article 1(2)(g) of the 2014 Directive (2014/52/EU) states that:

"Environment impact assessment" means a process consisting of:

(i) The preparation of an environmental impact assessment report by the developer, as referred to in Article 5(1) and (2).

(ii) The carrying out of consultations as referred to in Article 6 and, where relevant, Article 7.

(iii) The examination by the competent authority of the information presented in the environmental impact assessment report and any supplementary information provided, where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7.

(iv) The reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examination; and

(v) The integration of the competent authority's reasoned conclusion into any of the decisions referred to in Article 8a."

The EIAR is a presentation of the potential environmental impacts of the proposed development with a focus on significant impacts.

Chapter 1 introduces the project and described the scope and methodology of the EIA process. The consultation process which was undertaken is outlined and the competencies of the environmental assessment team are provided.

1.1.1 Author Information and Competency

This chapter was prepared by Ciaran Dineen of McCutcheon Halley Chartered Planning Consultants. Ciaran holds a Bachelor of Science (BSc) degree in Government and Politics and a Master's in Planning and Sustainable Development (MPlan), both received from University College Cork. He has over 3 years' experience working with multi-disciplinary teams and has provided input into a variety of projects. He is a Corporate member of the Irish Planning Institute.

Directly relevant experience to this proposed development that Ciaran has been involved in is the formation of EIAR's, EIA and AA screening reports for a range of development projects. Relevant project experience includes large housing developments, single 'one – off' developments, submissions to local area plans and county development plans. Ciaran project managed and coordinated the preparation of this EIAR with input from a team of qualified specialists.

This chapter of the EIAR has also been prepared by Aida Vaisvilaite of McCutcheon Halley Chartered Planning Consultants. Aida holds a Bachelor's degree in Arts, majoring in English, and a Master's in Planning and Sustainable Development, both awarded by University College Cork. Directly relevant experience to this proposed development that Aida has been involved in is the direction of EIARs and Environmental Reports to accompany residential-led applications that received permission for development, including;

- Population and Human Health Chapter for a Large-Scale Residential Development, Mallow, Co. Cork
- Environmental Impact Assessment Screening Report for a Large-Scale Residential Development in Castlemartyr, Co. Cork.
- Environmental Impact Assessment Screening Report for a Large-Scale Residential Development in Douglas, Cork.

This chapter of the Environmental Impact Assessment Report (EIAR) has been reviewed by Andrea McAuliffe, a Senior Planner at McCutcheon Halley Planning Consultants. Andrea holds qualifications in Planning and Project Management and is a corporate member of the Irish Planning Institute. She has over 8 years of experience in planning and has worked as part of multidisciplinary teams on numerous projects. Her expertise includes contributing to a wide range of developments requiring environmental and planning assessments of potential impacts.

1.1.2 The Applicant

Castle Rock Homes (Bandon) Ltd. with more than 25 years' experience in the High-end international construction & fit out industry have set up a residential construction company specialising in Block Built A rated modern homes. Castle Rock Homes strongly believe that people now desire a house, which can be their family home for life. They are designing and building quality homes with sufficient living and outdoor space to meet this desire. They also recognize that your home is the single biggest purchase you will most likely ever make and they make every effort to ensure your dream home is exactly that.

1.1.3 Reference to Guidelines Relevant to Discipline

This chapter has been prepared having regard to the following guidelines:

- Guidelines on the Information to be Contained in Environmental Impact Statements (Environmental Protection Agency (EPA), May 2022).
- Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003).
- EU Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017).
- EU Environmental Impact Assessment of Projects: Guidance on Scoping (EU, 2017).
- Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment (OPR,2018).

1.1.4 Brief Project Description

A full description of the proposed development is provided in Chapter 2, Project Description. Please also Refer to the Site Layout Plan prepared by Brian O' Kennedy & Associates Ltd. In summary, the subject application is for a Large-Scale Residential Development (LRD) comprising of the construction of 212 no. residential units and all ancillary development works including footpaths, car and bicycle parking, drainage, bicycle and bin stores, lighting and landscaping/amenity areas at Knockbrogan, Bandon, Co. Cork. Access will be provided via the existing access road onto the Cork Road permitted under reference 21/4059.

The 6.688-hectare (net developable area and 7.998ha gross area) site is located within the townland of Knockbrogan, approximately 500m northeast of Bandon town centre. The subject site is accessed via the existing Cork Road, located to the west as part of the permitted Phase 1 and 2 developments currently under construction. Further north of the site are the residential developments of Ard an Chuillin and The Hawthorns. The residential development of Radharc an Bhaile is located to the southwest of the development, and an agricultural greenfield site bounds the lands to the east, south and north of the site. The character of dwellings surrounding the site ranges in size and house types, comprising detached, semi-detached and terraced houses.

To the west of the subject site, construction works are currently underway for the 59 units permitted in Phase 1, while early foundational works have commenced for the Phase 2 site.

The proposed site layout is shown below in **Figure 1.1**

Figure 1.1 Site Layout prepared by Brian O' Kennedy & Associates Ltd.

1.1.5 Site Description

The subject site lies north of Bandon town centre, which hosts a variety of facilities and amenities. The town centre is a ten-minute walk away. Some of the facilities that can be found include a range of cafes and restaurants, retail, doctors, dentists, and Bandon Garda station. A further list of facilities and amenities in the Bandon area are outlined in Chapter 4.

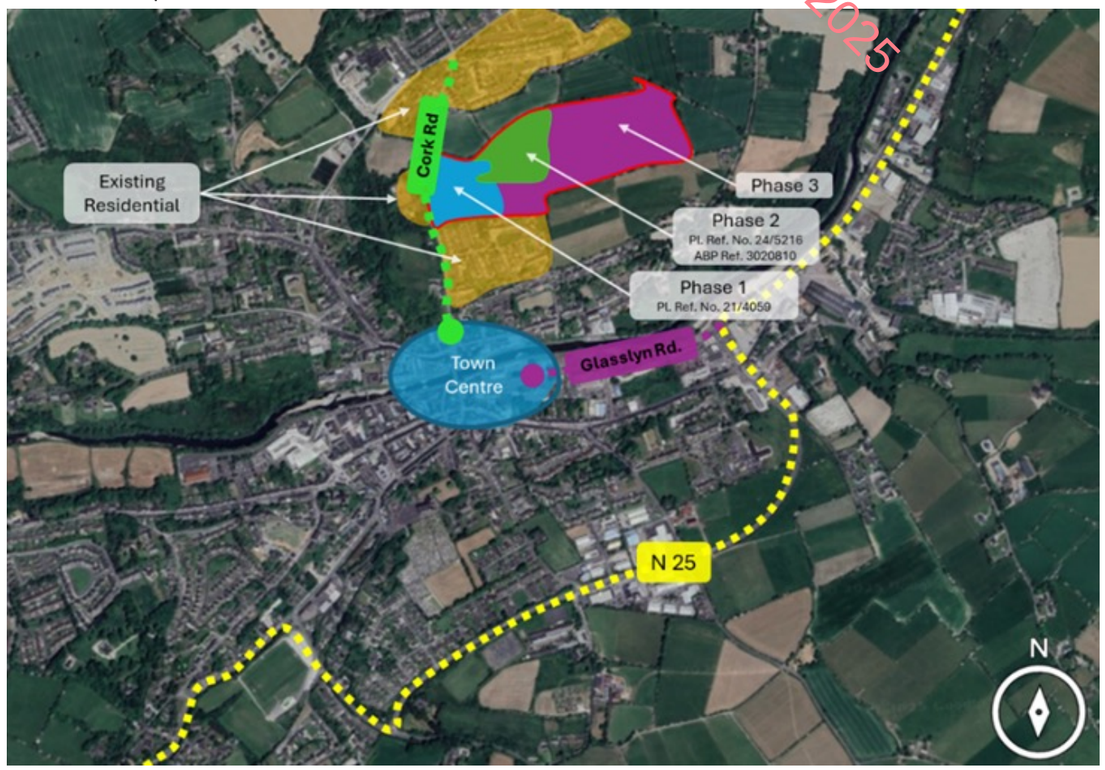

Figure 1.2 Site Location and Context

The sites topography is one of its key characteristics as it is located on the ridge of an east-west linear hill. The peak of the hill lies to the west of the site and falls steadily to the east across the site.

The site is located 23 kilometres to the south-west of Cork City Centre, a 20-minute drive from Clonakilty and 10 minutes from Innishannon, which both host a variety of employment opportunities and services.

The Site is within a short walking distance of nearby bus stops. The closest bus stops to the development are located at Glasslynn Road, approximately 750m from the site. Bus Eireann operate a number of rural intertown bus routes which pass through Bandon linking Bandon to Cork City and other towns in West Cork. There are also a number of local school bus operators in the town.

These routes include:

- 236 (Cork – Dunmanway – Bantry – Glengarriff – Castletownbere). Service operates 9 times a day.
- 237 (Cork – Clonakilty– Skibbereen – Goleen). Service operates 8 times a day; and
- 239 (Cork – Bandon – Courtmacsherry – Bulterstown). Service operates 8 times a day.

1.1.6 Land Use Zoning Objective

The zoning objective designated for the subject site is BD-R-03 which is a Medium A Residential Development, as identified in the Cork County Development Plan 2022-2028, which seeks that;

'The development of the site should be accompanied by a Traffic Assessment illustrating how the site will connect to the proposed North Bandon Connectivity and Access Corridor (BD-U-02) and existing road networks in the vicinity'

'The layout also needs to make provision for pedestrian and cycleway links with existing adjoining residential areas and future links with the school campus'

'Proposals for this development are to include provision for an overall landscaping plan to assimilate the scheme into the hillside and should include retention of mature trees and boundaries.'

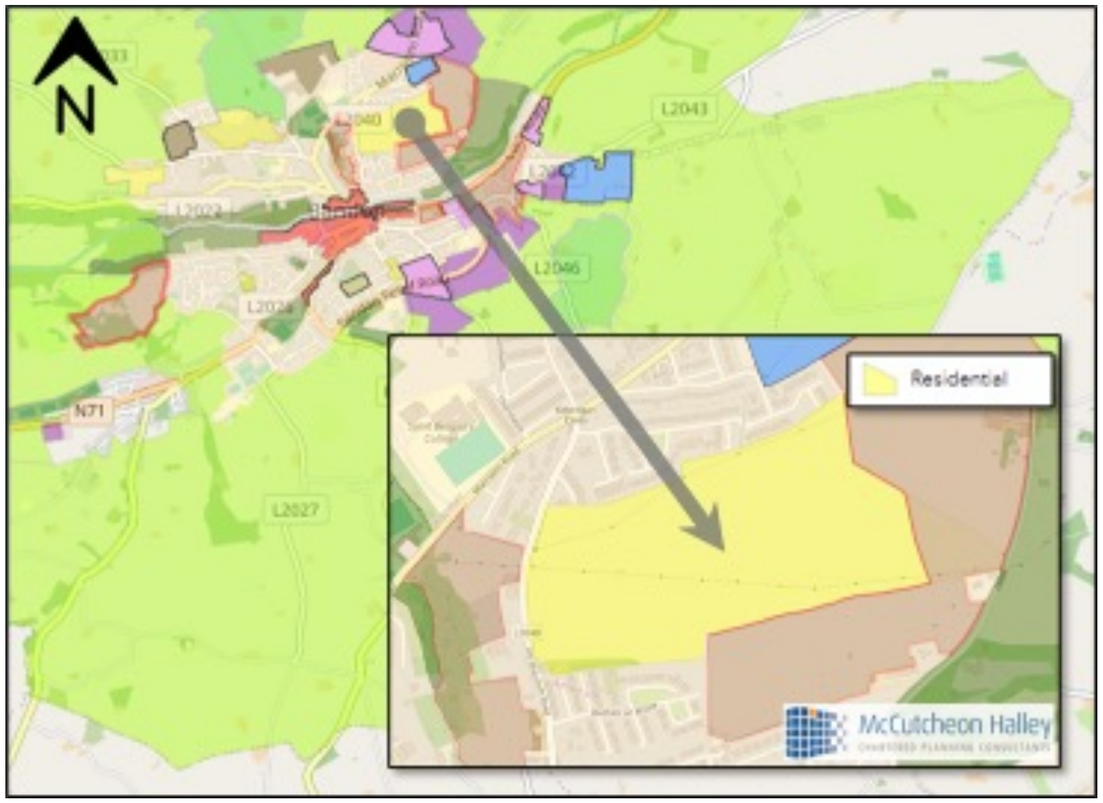

Figure 1.3 Zoning Designation on the Subject Site (Extract from Cork County Development Plan Map 2022-2028)

1.2 Methodology

This EIAR document has been prepared in accordance with the requirements set out in the Planning and Development Act 2001 (as amended) and in the Council Directive 2011/92/EU as amended by Directive 2014/52/EU (the EIA Directive). The Planning and Development Act and Regulations 2000 to 2018 have been amended by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) to take account of the requirements of the EIA Directive (Directive 2014/52/EU).

Annex IX of the EIA Directive and Schedule 6 of the European Union (Planning and Development) (Environmental Impact Assessment) (Regulations) 2018 specify the information to be contained in EIAR. These requirements identify a range of prescribed environmental factors, the significant effects of which have been addressed in this EIAR. These include population and human health, biodiversity, land and soil, water, air and climate, noise, landscape, cultural heritage and material assets as well as the inter-relationship between the above topics.

As defined in the Environmental Protection Agency - Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022):

'..in an EIAR, the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil etc.'

Recital 22 to the EIA Directive provides that;

"In order to ensure a high level of protection of the environment and human health, screening procedures and environmental impact assessments should take account of the impact of the whole project in question, including, where relevant, its subsurface and underground, during the construction, operational and, where relevant, demolition phases".

This chapter has been prepared pursuant to Schedule 6 of the Planning and Development Regulations 2001 (as amended). Section 2 of Schedule 6 sets out the additional information relevant to the specific characteristics of the project required, which includes a description of the likely significant effects on the environment of the proposed development.

1.2.1 Significant Impacts

The significance of the effects of the development at Knockbrogan, Bandon have been assessed according to the EIAR guidance and with the professional judgement of the competent experts who assisted in preparing this EIAR (the study team are presented in Table 1.3 of this EIAR). In this EIAR the terms "effects" and "impacts" are used interchangeably.

Significance of effects is usually understood to mean the importance of the outcome of the effects (the consequences of the change). Significance is determined by a combination of (objective) scientific and subjective (social) concerns. The significance of effects for each discipline is described using the terms provided in the 2022 EPA Guidance document (Table 1.1. below);

Table 1.1 Description of effects

Quality of Effect	
Positive	A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of and ecosystem, or by removing nuisances or improving amenities.
Neutral	No effects of effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative/Adverse Effects	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
Significance of Effect	
Imperceptible	An effect capable of measurement but without significant consequences.
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight Effect	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effect	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effect	An effect which, by its character, magnitude, duration, or intensity alters a sensitive aspect of the environment.
Very Significant Effect	An effect which, by its character, magnitude, duration, or intensity significantly alters most of a sensitive aspect of the environment.
Profound Effect	An effect which obliterates sensitive characteristics.
Duration of Effects	
Momentary	Seconds to minutes
Brief	Less than 1 day
Temporary	Less than 1 year
Short-term	1-7 years
Medium-term	7-15 years
Long-term	15-60 years
Permanent	Over 60 years
Extent and Context of Effects	
Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?).
Probability of Effects	
Likely	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Extent and Context of Effects	
Unlikely	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Type of Effects	
Indirect	Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
Cumulative	The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
Do Nothing	The environment as it would be in the future should the subject project not be carried out.
Worst Case	The effects arising from a project in the case where mitigation measures substantially fail.
Indeterminable	When the full consequences of a change in the environment cannot be described.
Irreversible	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
Residual	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
Synergistic	Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).

1.2.2 Study Area

The study area is Phase 3 of the masterplan area which comprises of Phases 1, 2, and 3. In general, the study areas are defined individually for each environmental topic, according to guidance and the geographic scope of the potential impacts or of the information required to assess those impacts. Details are provided by each discipline as part of the description of baseline conditions of the site.

1.2.3 Background and Purpose of the EIAR

This proposed development falls within the class of development types requiring an EIAR under Schedule 5 to the Planning and Development Regulations 2001 (as amended). The proposed development is subject to Part 2 of this Schedule (Section 10) which deals with Infrastructure projects where and EIA is required for;

10. (b) (i) (b)(i) Construction of more than 500 dwelling units.

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built up area and 20 hectares elsewhere.

(In this paragraph, "business district" means a district within a city or town in which the predominant land use is retail or commercial use.).

The proposed project of 'Phase 3' comprises construction of 212 residential units, in a site of area 7.998 ha (net). Given the size and scale of the project it does not in itself trigger the need for an Environmental Impact Assessment.

However, in this case it is considered that an EIAR is required within regard to potential cumulative impacts of the development when considered in combination with all phases. The entire development area (which includes Phase 1, Phase 2, and Phase 3) encompass an area of c. 13.727 ha, which exceeds the threshold for site area set out above.

In cases where a project is mentioned in Part 2 but is classed as "sub-threshold development", planning authorities are required under article 103 of the 2001 Regulations to request an EIAR where it considers that the proposed development is likely to have significant environmental effects.

The criteria for assessing whether a development would or would not be likely to have significant effects on the environment are outlined in Schedule 7 of the 2001 Regulations and require the submission of information on the following;

- Characteristics of the proposed development;
- Location of the proposed development, in terms of the environmental sensitivity of geographical areas likely to be affected by the proposed development; and
- Characteristics of the proposed impacts, in terms of the potential significant effects of the proposed development.

The Department for Housing, Local Government and Heritage issued Guidance for Consent Authorities regarding Sub-threshold Development (2020). In considering the characteristics of a proposed development, paragraphs 5.8 and 5.9 state that;

"One of the aims of the sub-threshold provisions contained in Irish EIA legislation is to address the issue of cumulation with other projects… Development of a large site e.g. redevelopment of an extensive brownfield site or housing development on a greenfield site, may be carried out on a phased basis, whether by one or a number of developers. The combination of individual projects may, over a period of years, have significant effects on the environment. While individual projects may not exceed mandatory EIA thresholds, the cumulative effect may be such that EIA would be appropriate in the case of some or all of the individual projects"

1.2.4 Scope of Cumulative Effects

Directive 2014/52/EU substituted a new Annex IV into Directive 2011/92/EU. Annex IV of the EIA Directive is to be read in conjunction with article 5(1) and sets out the information to be included in an EIAR. Annex IV was transposed into national law via article 97 of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (the "2018 Regulations") which substituted a new Schedule 6 into the Planning and Development Regulations 2000, as amended. The Directive requires that the EIAR describes the cumulation of effects with other existing and/or approved projects. Cumulative effects may arise from:

> *"The interaction between the various impacts within a single project;*
>
> The interaction between all of the differing existing and / or approved projects in the same areas as the proposed project."

In August 2018, the Department of Housing, Planning and Local Government issued Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment. The Guidelines summarise "cumulative effects" in the following way on page 40;

> *"Effects are not to be considered in isolation but cumulatively i.e. when they are added to other effects. A single effect on its own may not be significant in terms of impact on the environment but, when considered together with other effects, may have a significant impact on the environment. Also, a single effect which may, on its own, have a significant effect, may have a reduced and insignificant impact when combined with other effects."*

Paragraph 2(e)(i)(V) of Schedule 6 (paragraph 5(e) of Annex IV) provides as follows;

> *"the cumulation of effects with other existing or approved developments, or both, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources."*

The proposed development is part of a larger area intended to be developed in phases. To date, planning permission has been granted for Phase 1 (Ref: 21/4059) and Phase 2 (Ref: 24/5216 / An Coimisiún Pleanála Ref: 320810-24) by Cork County Council and An Coimisiún Pleanála, for residential development within the wider site. The potential cumulative impacts of the proposed project (Phase 3) in combination with the earlier permitted phases of Phase 1 and Phase 2 will therefore be considered in this EIAR.

Table 1.2 Projects considered for cumulative impacts

	Reference	Development	Decision Details
1.	Cork County Council Ref No. 21/4059 and ACP-312689-22	In January 2022 Cork County Council granted permission to Castle Rock Homes (Bandon) Limited for the construction of a residential development of 59 no. units with ancillary surface car park, bicycle parking racks, bin stores and all associated site development works. This permitted scheme is located west of the subject site and is currently under construction and nearing completion. It represents Phase 1 of development, while the current application represents Phase 3 of development.	ePlan - Online Planning Details (corkcoco.ie)
2.	Cork County Council Ref No. 24/5147	Castle Rock Homes (Bandon) Ltd submitted an application on June 19, 2024, for the provision of a creche adjacent to the Phase 1 application. This creche proposed a childcare facility which will cater for 85 no. children. The application was granted, and a final grant of permission has been received.	ePlan - Online Planning Details (corkcoco.ie)

3.	Cork County Council Ref No. 24/5216 ACP Ref: 320810-24	Castle Rock Homes submitted an application on 28th June 2024 for 95 no. units (Phase 2). The proposed development, by reason of site configuration, layout, visual obtrusiveness and traffic hazard, was refused permission on the 20th August 2024 by Cork County Council. The applicant submitted a first-party appeal, resulting in a split decision issued by An Coimisiún Pleanála on 4th February 2024. The Board disagreed with the Local Authority's assessment, determining that Phase 2 was acceptable in terms of density, design, and visual impact. Accordingly, permission was granted for the construction of Units 1–71 as part of Phase 2, while permission was refused for Units 72–95, with the Commission recommending a reconsideration of the future layout for that portion of the development.	ePlan - Online Planning Details (corkcoco.ie)
4.	Cork County Council Ref No. 23/4015 and ACP-319115-24	In January 2024, Cork County Council granted permission for the construction of a residential development of 20 no. apartments including the demolition of structures and all ancillary site works including bicycle and car parking, bin storage, landscaping and boundary treatments at Watergate Street, Knockbrogan, Bandon, Co. Cork. The decision was subject to a first party appeal by the applicant who sought to remove a condition for a special contribution. The Commission upheld the decision and list of conditions by the Local Authority.	ePlan - Online Planning Details (corkcoco.ie)
5.	Cork County Council Ref No. 23/6540	In January 2025, Cork County Council granted permission for the construction of a residential development consisting of 77 no. dwelling houses and a single storey creche facility with ancillary surface car park, bicycle parking racks, bin stores and all ancillary development works at Knockbrogan, Bandon, Co. Cork	ePlan - Online Planning Details (corkcoco.ie)
6.	Cork County Ref No. 25/5834	In September Cork County Council received an application for permission for 8no. 3-bedroom semi-detached dwelling houses and all ancillary site works. The proposed development is a change of house type from that permitted under An Coimisiún Pleanala 320810-24 and Cork County Council Planning Reference 24/5216. Access to the proposed development will be provided via the Blossomhill primary estate road as previously permitted. The application awaits a decision.	Citizen Portal Planning

1.3 Environmental Impact Assessment Report

1.3.1 Report Structure

This EIAR has been prepared according to the 'Grouped Format Structure'. This means that each topic is considered as a separate section and is drafted by relevant specialists.

The EIAR is divided into three Volumes as follows:

- Volume I: Non-Technical Summary
- Volume II: Main Environmental Impact Assessment Report
- Volume III: Appendices to the Main Environmental Impact Assessment Report

1.3.1.1 Volume I: Non-Technical Summary

The Non-Technical Summary provides an overview of the project and the EIAR in non-technical terms. The summary is presented similar to the grouped format structure which discusses each environmental topic separately.

1.3.1.2 Voume II: Environmental Impact Assessment Report (EIAR)

The EIAR volume provides the detailed information on the proposed development and the relevant environmental topics, with technical and detailed investigations of the topic areas as appropriate. This volume is prepared in the grouped format structure as it allows specialist studies to be completed for environmental topics in chapters.

1.3.1.3 Volume III: Appendices to the EIAR

The Appendices volume contains supporting documentation and information on the EIAR.

1.3.2 EIAR Co-Ordinator and Study Team

McCutcheon Halley Planning Consultants (MH Planning) are the planning consultants and project co-ordinators of the EIAR. The EIAR structure and consultant responsible for each of the chapters are presented in Table 1.3.

Table 1.3 EIAR Co-Ordinator and Study Team

Chapter	Aspect	Consultancy	Lead Consultant
1	Introduction	McCutcheon Halley Planning Consultants	Ciaran Dineen
2	Project Description	McCutcheon Halley Planning Consultants	Aida Vaisvilaite
3	Alternatives	McCutcheon Halley Planning Consultants	Ciaran Dineen
4	Population & Human Health	McCutcheon Halley Planning Consultants	Ciaran Dineen
5	Landscape & Visual	Modelworks	Richard Butler
6	Material Assets: Traffic & Transport	Hegsons Design Consultancy	Ken Hegarty
7	Material Assets: Built Services	Brian O'Kennedy and Associates	Brian O'Kennedy
8	Material Assets: Waste	Malone O'Regan Consulting Engineers	Martin Kearns
9	Land & Soils	AWN Consulting	Marcelo Allende
10	Hydrology and Hydrogeology	AWN Consulting	Marcelo Allende
11	Biodiversity	Malone O'Regan	Kathryn Broderick
12	Noise & Vibration	AWN Consulting	Ciara Nolan

Chapter	Aspect	Consultancy	Lead Consultant
13	Air Quality	AWN Consulting	Ciara Nolan
14	Climate	AWN Consulting	Ciara Nolan
15	Cultural Heritage – Archaeological & Built Heritage	John Cronin and Associates	Peter Looney
16	Risk Chapter	AWN Consulting	Matt Mitchie
17	Interactions of the Foregoing	McCutcheon Halley Planning Consultants	Ciaran Dineen
18	Summary of Mitigation Measures	McCutcheon Halley Planning Consultants	Ciaran Dineen

1.3.3 EIAR Study Team Qualifications

The qualifications of consultants responsible for each discipline is provided in the introduction to the relevant chapter. Production of the EIAR has been co-ordinated by Ciaran Dineen of McCutcheon Halley Chartered Planning Consultants. Ciaran holds a Bachelor of Science (BSc) degree in Government and Politics and a Master's in Planning and Sustainable Development (MPlan), both received from University College Cork. He has over 3 years' experience working with multi-disciplinary teams and has provided input into a variety of projects. He is a Corporate member of the Irish Planning Institute.

This chapter of the EIAR has also been prepared by Aida Vaisvilaite of McCutcheon Halley Chartered Planning Consultants. Aida holds a Bachelor's degree in Arts, majoring in English, and a Master's in Planning and Sustainable Development, both awarded by University College Cork.

This chapter of the Environmental Impact Assessment Report (EIAR) has been reviewed by Andrea McAuliffe, a Senior Planner at McCutcheon Halley Planning Consultants. Andrea holds qualifications in Planning and Project Management and is a corporate member of the Irish Planning Institute. She has over 8 years of experience in planning and has worked as part of multidisciplinary teams on numerous projects. Her expertise includes contributing to a wide range of developments requiring environmental and planning assessments of potential impacts.

1.4 Scoping and Public Consultation

The EIAR was scoped following an appraisal of the 2022 EPA guidelines of information to be contained within the EIAR, through design team meetings with the specialist consultants and the pre-planning meetings held with Cork County Council and decisions issued on previous phases of the development.

Prior to lodging this application, the required information has been issued for the Department of Housing, Planning and Local Government's EIAR Portal. The purpose of this tool is to inform the public, in a timely manner, of applications that are accompanied by an EIAR.

The following prescribed bodies have been consulted in relation to the general scope of the EIAR:

Prescribed Bodies / Agencies

- Department of Culture, Heritage, & the Gaeltacht (Development Applications Unit)
- National Monuments Services;
- National Parks & Wildlife Service (NPWS);
- Department of Education;
- Geological Survey Ireland (GSI);
- The Heritage Council;
- Office of Public Works (OPW);
- Transport Infrastructure Ireland (TII);
- The National Transport Authority
- The Health and Safety Authority;
- The Health Service Executive (HSE);
- Inland Fisheries Ireland;
- Bat Conservation Ireland;
- Uisce Eireann;
- An Taisce;
- Bord Gais;
- ESB

Responses received along with a copy of the consultation information letter issued to each of the above prescribed bodies are presented in Appendix 1.1

1.5 References & Sources

1. Guidelines on the information to be Contained in Environmental Impact Statements (Environmental Protection Agency (EPA, May 2022); https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf

2. Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003). https://www.epa.ie/publications/monitoring--assessment/assessment/advice-notes-on-current-practice-in-the-preparation-of-environmental-impact-stat.php

3. EU Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017). https://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf

4. EU Environmental Impact Assessment of Projects: guidance on Scoping (EU, 2017). https://ec.europa.eu/environment/eia/pdf/EIA_guidance_Scoping_final.pdf

5. Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying our Environmental Impact Assessment (OPR, 2018). https

CHAPTER TWO

PROJECT DESCRIPTION

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CHAPTER 2

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CHAPTER 2 | PROJECT DESCRIPTION

2.1 Introduction

The EIA Directive requires that an EIAR contain a description of the project, including information on its site, design, size, and other relevant features. Recital 22 of the 2014 Directive states:

> *"In order to ensure a high level of protection of the environment and human health, screening procedures and environmental impact assessments should take account of the impact of the whole project in question, including, where relevant, its subsurface and underground, during the construction, operational and, where relevant, demolition phases."*

This chapter addresses these requirements by providing detailed information on the location, scale, and characteristics of the proposed project.

2.2 Expertise and Qualifications

This chapter of the EIAR was prepared by Aida Vaisvilaite of McCutcheon Halley Planning Consultants and reviewed by Andrea McAuliffe of McCutcheon Halley Planning Consultants.

Aida Vaisvilaite of McCutcheon Halley Chartered Planning Consultants has also prepared this chapter of the EIAR. Aida holds a Bachelor's degree in Arts, majoring in English, and a Master's in Planning and Sustainable Development, both awarded by University College Cork. Directly relevant experience to this proposed development that Aida has been involved in is the direction of EIARs and Environmental Reports to accompany residential-led applications that received permission for development, including;

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- Environmental Impact Assessment Screening Report for a Large Scale Residential Development in Castlemartyr, Co. Cork.
- Environmental Impact Assessment Screening Report for a Large Scale Residential Development in Douglas, Cork.

Andrea McAuliffe, a Senior Planner at McCutcheon Halley Planning Consultants. Andrea holds qualifications in Planning and Project Management and is a corporate member of the Irish Planning Institute.

She has over 8 years of experience in planning and has worked as part of multidisciplinary teams on numerous projects. Her expertise includes contributing to a wide range of developments requiring environmental and planning assessments of potential impacts.

2.3 Description of Existing Environment

The subject site, comprising approximately 7.988 hectares, is located within the townland of Knockbrogan, approximately 500 metres northeast of Bandon town centre, Co. Cork. The lands form part of a coordinated residential masterplan that is being delivered in three phases. Phase 1 (Ref. 21/4059) is located to the west and is nearing completion. Phase 2 (Ref. 24/5216 & ABP Ref. 320810-24) is located to the north and early foundations have commenced and 3 – the subject of this EIAR – occupies the central and eastern portions of the masterplan lands and together constitute the balance of residential development.

The subject site is accessed via the existing Cork Road, located to the west as part of the permitted Phase 1 and 2 developments currently under construction. Further north of the site are the residential developments of Ard an Chuillin and The Hawthorns. The residential development of Radharc an Bhaile is located to the southwest of the development, and an agricultural greenfield site bounds the lands to the east, south and north of the site. The character of dwellings surrounding the site ranges in size and house types, comprising detached, semi-detached and terraced houses.

The subject site lies north of Bandon town centre, which hosts a variety of facilities and amenities. The town centre is a ten-minute walk away. Some of the facilities that can be found include a range of cafes and restaurants, retail, doctors, dentists, and Bandon Garda station. A further list of facilities and amenities in the Bandon area are outlined in Chapter 4.

The sites topography is one of its key characteristics as it is located on the ridge of an east-west linear hill. The peak of the hill lies to the west of the site and falls steadily to the east across the site.

The site is located 23 kilometres to the south-west of Cork City Centre, a 20-minute drive from Clonakilty and 10 minutes from Innishannon, which both host a variety of employment opportunities and services.

The Site is within a short walking distance of nearby bus stops. The closest bus stops to the development are located at Glasslynn Road, approximately 750m from the site. Bus Eireann operate a number of rural intertown bus routes which pass through Bandon linking Bandon to Cork City and other towns in West Cork. There are also a number of local school bus operators in the town.

These routes include:

- 236 (Cork – Dunmanway – Bantry – Glengarriff – Castletownbere). Service operates 9 times a day.
- 237 (Cork – Clonakilty– Skibbereen – Goleen). Service operates 8 times a day; and
- 239 (Cork – Bandon – Courtmacsherry – Bulterstown). Service operates 8 times a day.

From an environmental perspective, the site does not lie within or immediately adjoin any Natura 2000 sites or other designated areas. Baseline ecological surveys confirm that habitats generally have low ecological value, comprising improved grassland and hedgerows, with no evidence of protected species recorded during field inspections. The lands lie outside Flood Zones A and B as mapped in the Cork County Development Plan 2022–2028, indicating a low risk of fluvial or tidal flooding.

Overall, the receiving environment comprises zoned residential lands within the Bandon settlement boundary, partly developed under earlier phases of the masterplan. It is characterised by strong physical and functional links to the existing urban fabric, established transport connections, and proximate access to a full range of services and amenities in Bandon town centre.

2.4 Description of Proposed Development

The applicant seeks permission for a 7-year planning permission for the following Large-scale Residential The Applicant seeks a 7-year planning permission for the following Large-scale Residential Development (LRD) comprising of the construction of 212 no. residential units (comprising a mix of 2, 3 and 4 bed semi-detached and terraced houses) with 170 no. of these residential units having an option for a rear extension, 3 no. ESB substations, and all associated site development works including footpaths, car and bicycle parking, drainage, bicycle and bin stores, public lighting and landscaping/amenity areas at Knockbrogan, Bandon, Co. Cork. Access to the site will be provided via the access road onto the Cork Road permitted under reference 21/4059.

The subject site forms part of a coordinated residential masterplan for the Knockbrogan lands, which are being delivered in three phases across a total site area of 13.727. Phase 1 (Planning Ref: 21/4059), located to the west, is nearing completion and will deliver 59 no. residential units. Phase 2 (Planning Ref: 24/5216 & ACP Ref: 320810-24) has commenced construction and will provide 71 no. residential units. Phase 3, the subject of this EIAR, completes the masterplan and will deliver the balance of 212 no. residential units, alongside the creche and associated infrastructure.

The masterplan has been prepared to ensure a coherent planning and design approach across all phases, with densities consistent with the Cork County Development Plan 2022–2028 and national guidance. The proposals include a mix of house types, landscaped open spaces, and sustainable transport connections, contributing to creating a high-quality residential environment that integrates with the surrounding urban fabric.

Figure 2.1 Proposed Layout. Source: BOK Architects

An overview of the key development statistics is set out in the following Table:

Table 2 1 Development Overview

Development Statistics	
Site Area	13.727ha (Phases 1, 2 & 3) – Phase 3 application area c. 6.73ha net
No. Units	212 no. residential units
Tenant Amenities & Facilities	Public open spaces, landscaped amenity areas, play areas, pedestrian and cycle links
Non-Residential Uses	85-place creche (Permitted under 24/5147)
Density	32 uph (net)
Building Height	1–2 storeys
Unit Mix Summary	68 no. 2-beds (32.1 %), 130 no. 3-beds (61.3%), 14 no. 4-beds (6.6%)
Car Parking	2 spaces per 3–4 bed unit, 1 space per 2-bed unit (in accordance with standards)
Bicycle Parking	1 space per dwelling minimum; communal stores for terraced units; visitor spaces provided
Dual Aspect Units	All houses are dual aspect
Public Open Space	16.3% (Phase 3)
Communal Amenity Space	Incorporated within public open space and landscaped areas
Plot Ratio	c. 0.36 (based on net site area)

2.4.1 Layout

The proposed layout has been informed by pre-planning discussions with Cork County Council, the findings of ecological and archaeological surveys, the previously approved Phases 1 and 2 of the Knockbrogan Masterplan, and recent decisions issued by An Coimisiún Pleanála. The design also responds to the surrounding context, including existing residential areas to the north, agricultural lands to the south and east, and the constructed access road and housing of Phase 1 to the west.

In addition, the proposed layout has been designed in accordance with the following policy documents:

- National Planning Framework (2025 Revision)Regional Spatial & Economic Strategy for the Southern Region (2020)
- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)
- Cork County Development Plan 2022–2028

Ecological surveys undertaken on the site confirmed that the land is of generally low ecological value, comprising improved grassland and hedgerows. The proposed layout has been designed to retain existing hedgerows and mature trees where possible and integrate these features into the scheme's open space and landscaping strategy.

The Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024) encourage higher densities in appropriate locations and provide a standard of 16m separation distance between opposing rear elevations of houses. The proposed layout has been designed in line with these guidelines, delivering a net density of 32.04 units per hectare in Phase 3, consistent with national and local policy.

The Cork County Development Plan 2022–2028 zones the lands for residential development under objective BD-R-03.The proposed layout has been prepared in accordance with the requirements of this objective and incorporates generous areas of public open space, pedestrian and cycle links, and a central green corridor.

In addition, a portion of land along the site's southern and eastern boundaries is being retained as landscaped open space, providing an appropriate buffer to adjoining agricultural lands and enhancing the development's ecological and recreational value.

2.4.2 Residential

The proposed layout provides a total of 212 no. residential units comprising 14 no. 4-bed semi-detached houses (6.6%), 88 no. 3-bed semi-detached dwellings (41.5%), 42 no. 2-bed mid-terrace houses (19.8%), 28 no. 3-bed end-terrace dwellings (13.2%), 14 no. 3-bed end-terrace houses (6.6%), and 28 no. 2-bed mid-terrace dwellings (13.2%).

National and local policy objectives have informed the mix of semi-detached and terraced dwellings. These objectives require a broad range of unit typologies, including a higher proportion of terraced units, to support compact growth and housing affordability.

The proposed units are arranged to create a distinctive streetscape with feature corner units, varied building lines, and character areas defined by changes in materials, façade treatments, and landscaping. This approach provides visual variety across the scheme and contributes to a strong sense of place.

Public open spaces, including play areas and pocket greens, are distributed throughout the layout, ensuring all houses are within a short walking distance of amenity space and enhancing the quality and usability of the development.

Figure 2.2 CGI prepared by Modelworks highlighting sample of house typology

2.4.3 Childcare Facility

A crèche facility with capacity for 85 children has been permitted under a separate planning application (Ref. 24/5147) and is intended to serve all three phases of the Knockbrogan masterplan. The facility is located to the west of the masterplan lands, adjacent to the Cork Road site entrance, providing convenient accessibility for residents and visitors. The crèche will be delivered before Phase 3 to ensure adequate childcare provision is in place for the overall development. A Childcare Demand Report prepared to support the masterplan confirms that the 85-place facility significantly exceeds the projected requirement of 29 spaces generated by the complete 340-unit scheme, ensuring sufficient capacity to meet the development needs and wider catchment.

Figure 2.3 Front and Rear Facades of the Permitted Creche

2.4.4 Access & Connections

Connectivity is a central design principle of the proposed development. The layout has been prepared to ensure permeability through the scheme and to adjoining lands while facilitating connections with the wider Bandon area. A clear hierarchy of streets and paths has been established to enable logical movement routes, integrating the development into its surrounding context and encouraging sustainable travel choices.

The proposed development will be accessed via the existing access road onto the Cork Road permitted under reference 21/4059. The internal road network has been designed in accordance with the Design Manual for Urban Roads and Streets (DMURS), with a main spine street running north–south through the scheme, from which secondary local streets and shared surface streets branch. Speed management features, such as narrowed carriageways and raised tables at key junctions and crossing points, will ensure a safe environment for all users.

The layout incorporates a high degree of permeability for pedestrians and cyclists. Dedicated pedestrian and cycle routes are proposed throughout the scheme including two-lane cycle track provided for in the scheme which follows the route of the arterial road running east-west connecting the scheme to the under-construction development and potential future developments. These routes will provide direct and convenient connections between Phases 1, 2 and 3 of the masterplan and safeguard future links to lands identified for education and community use to the east.

The development will also benefit from wider transport improvements in the area, including the planned North Bandon Connectivity and Access Corridor (Objective BD-U-02 of the Cork County Development Plan) and the CycleConnects proposals for Bandon. These works will significantly enhance walking and cycling links into the town centre and reduce reliance on private cars.

The internal network of shared pedestrian/cycle paths connects directly with the public road network at the site entrance. It links to existing and planned footpaths and cycleways along Old Cork Road. This will ensure that residents of the proposed development have safe, attractive, and direct routes to nearby schools, services, and the town centre that are consistent with the principles of sustainable mobility.

The Mobility Management Plan prepared for the master plan sets out a range of measures, including cycle and walking initiatives, public transport promotion, and car-based initiatives such as car sharing and EV infrastructure. Together with the proposed street hierarchy and permeability measures, this will ensure that the development prioritises sustainable movement, integrates into the wider town, and fosters a connected, resilient community.

2.4.5 Parking

2.4.5.1 Car Parking

Car parking within the scheme is provided in accordance with the Cork County Development Plan standards. Either one or two car-parking spaces are allocated to each dwelling unit. In addition, 22 no. visitor spaces are provided on site. The total car parking provision amounts to 308 no. car parking spaces.

In addition, car parking is provided to serve the permitted 85-place crèche at the site entrance (Ref. 24/5147). Visitor car parking is also distributed across the scheme to serve communal areas and public open spaces.

Most residential parking is provided as in-curtilage spaces, enabling residents to install EV charging points. To support wider accessibility, a number of dedicated EV charging spaces will also be provided within shared parking areas.

2.4.5.2 Cycle Parking

In accordance with the development plan, cycle parking is provided at a minimum of one space per dwelling. The majority of units will have direct access to their rear gardens for bicycle storage. For terraced units without private rear access, communal bicycle stores will be provided at convenient locations within the scheme.

Additional bicycle parking will be provided for the permitted crèche, including secure long-stay spaces for staff and short-stay spaces for visitors. Visitor cycle parking will also be distributed across the scheme, adjacent to public open spaces and community focal points, to ensure a well-connected and accessible network of facilities.

2.4.6 Landscape

2.4.6.1 Public Open Space

The proposed layout provides approximately 16.3%% of the Phase 3 net site area as public open space, distributed across a network of larger central spaces and smaller pocket parks. These open spaces are designed to provide a variety of recreational opportunities, including kickabout lawns, children's play areas, seating areas, and naturalistic woodland trails. The central linear green spine will serve as the main organising feature of the landscape, connecting open spaces across the scheme and reinforcing ecological corridors formed by existing hedgerows.

The open space network has been designed to support biodiversity enhancement in addition to recreational uses. Planting will be drawn from the All-Ireland Pollinator Plan, including native trees, wildflower meadows, and pollinator-friendly perennials to provide year-round habitat. A woodland park located at the eastern edge will deliver a natural amenity and ecological buffer, linking with wider landscape features.

2.4.6.2 Private Amenity Space

Each dwelling within the proposed development is provided with private amenity space in accordance with Development Plan standards. This will typically comprise rear gardens for houses, with communal landscaped courtyards provided for selected terraces to ensure all residents can access high-quality private outdoor space.

2.4.6.3 Boundaries

The boundary treatment strategy responds to both the local context and ecological considerations. Existing native hedgerows will be retained and reinforced wherever possible, supplemented with new native planting to provide screening, enhance biodiversity, and contribute to the site's green infrastructure network. The ecological buffer areas are planted with hawthorn, blackthorn, holly, and elder species to strengthen wildlife corridors and ensure continuity with the surrounding landscape.

2.4.7 Site Services

Due to the nature of the site, being greenfield agricultural lands, there are no existing foul, surface water, or stormwater utilities within the site itself. All services for Phase 3 are designed to connect into the networks delivered through Phases 1 and 2 of the Knockbrogan masterplan, which in turn connect to the upgraded public services along the L-2040 Old Cork Road. The following provides a summary of the proposed site services, which are described in full detail in Chapter 7 – Material Assets: Built Services.

2.4.7.1 Wastewater

It is proposed that this development will be serviced internally by 150mm and 225mm diameter foul sewers and will include the provision of services connections, inspection chambers etc. throughout the site.

Foul sewers have been designed and will be constructed in accordance with the Uisce Éireann 'Standard Details for Wastewater infrastructure' and 'Code of Practice for Wastewater Infrastructure'. In addition, foul sewers have been designed to the Building Regulations 1997, as amended, and specifically in accordance with the principles and methods set out in EN 752:2008 and DOE 'Recommendations for Site Development Works' (1998). In addition, HR Wallingford 'Tables for the Hydraulic Design of Pipes, Sewers and Channels' and Water UK/WRc 'Sewers for Adoption – 6th Edition' have been applied.

2.4.7.2 Surface Water

It is proposed to service the proposed development by means of a connection to an existing 300mm and 225mm diameter surface water pipes located in the existing phase 2 of the site. This surface water pipe will connect to a newly laid 600 mm diameter concrete pipe in the L-2040 roadway to the east.

The proposed development has been sub-divided into 3 sub-catchments with individual attenuation tanks for each of these areas. These sub-catchments attenuate and control the discharge generated within to QBAR. Surface water run-off from the proposed development will be discharged, after attenuation and control, to QBAR.

The site's surface water management infrastructure has been designed in accordance with the Greater Dublin Strategic Drainage Study 2005 (GDSDS). Proposed surface water drains have been designed in accordance with the Greater Dublin Strategic Drainage Study 2005 (GDSDS), Greater Dublin Regional Code of Practice (V6), the Department of the Environment's "Recommendations for Site Development Works for Housing Areas" (1998), the Department of the Environment's Building Regulations "Technical Guidance Document Part H Drainage and Waste Water Disposal" and BS EN 752: 2008 "Drain and Sewer Systems Outside Buildings".

Sustainable drainage systems (SuDS) features incorporated in the design include swales, Filter drains, permeable paving, and flow control devices in accordance with CIRIA publication C753 SuDS Manual. These design features will aid in managing rainwater close to where it falls, allow rainwater to soak into the ground, promote evapotranspiration, slow down and store runoff, treat runoff to reduce contamination through pollution prevention and controlling the runoff at source and reduce the risk of urban contaminants causing environmental pollution.

The proposed surface water drainage design has is outlined in more detail within the Engineering Infrastructure Report submitted as part of this application, under separate cover.

2.4.7.3 Water Supply

It is proposed that this development will be serviced by 225mm and 100mm diameter watermains and will include the provision of new fire hydrants and relevant infrastructure throughout the site.

As part of the UE confirmation of feasibility received under CDS25003539 , an upgrade is required to the existing water network to accommodate the proposed site. These upgrade works include a 300mm diameter water main to be installed from Bandon town centre up the R589 and across to the L-2040 roadway serving the development.

2.4.7.4 Flood Risk

A Flood Risk Assessment has been undertaken for the development. The Phase 3 site lies outside Flood Zones A and B as mapped by the OPW and Cork County Development Plan, indicating low risk of fluvial or tidal flooding. The sloping topography and SuDS strategy, including attenuation tanks and infiltration measures, will ensure surface water is managed on-site at greenfield run-off rates and will not exacerbate downstream flood risk. Site-specific soakaway testing indicates moderate to high infiltration capacity.

The site is considered appropriate for residential development under the sequential approach outlined in the Planning System and Flood Risk Management Guidelines.

2.4.7.5 Electrical Supply

There are an existing 10kVA power line running across the site. The development proposes to underground/divert these power lines. Ultimately the ESB Engineer will decide what route the lines will take following an application through the ESB networks portal.

It is anticipated that three new substations are required to be constructed within the new development area. All three will be strategically positioned to efficiently service the estate. The exact location and number will be dictated by the ESB at post-planning consultation stage.

The substations will each supply power to mini pillars distributed throughout the site. In turn, the mini pillars will provide electricity to the residential dwellings and public lighting within the development.

2.4.7.6 Gas Supply

There is no existing gas infrastructure near the proposed development, and it is not proposed to supply the development with gas supply. The proposed residential units will be served by electric air-to-water heat pumps to meet the requirements of Part L of the Building Regulations. Heat pumps run at an energy efficiency of approximately four times that of gas and are a renewable form of energy which is a requirement of the Building Regulations. No connections to the natural gas network will be required.

2.4.7.7 Telecommunications

Virgin and Eircom networks are installed along the Cork Road to the west of the subject site and the design of the network has allowed for a connection to the proposed residential development through the existing phases 1 & 2.

2.4.8 Traffic

The traffic impacts of the proposed development have been assessed in the Traffic and Transport Assessment (TTA) prepared by Hegsons Design Consultancy and submitted with this application. The assessment considered the additional traffic volumes generated by the 212 no. residential units in Phase 3 and the cumulative impact of Phases 1 and 2 of the masterplan. The results confirm that the surrounding road network, including the L-2040 Old Cork Road and its junctions, will continue to operate well within capacity following the completion of the development.

The assessment also demonstrates that the proposed site access and planned pedestrian and cycle improvements will provide safe and efficient connections to the surrounding network. Therefore, the proposed development is not expected to significantly adversely impact traffic in the Bandon area.

2.5 Description of Construction Phase

This application is accompanied by a Construction Environmental Management Plan (CEMP), which should be read in conjunction with this chapter to describe the construction phase comprehensively.

2.5.1 Programme

Construction of the proposed residential development at Knockbrogan will be carried out in a phased manner over an estimated period of 36 months. The phasing has been designed to ensure that essential infrastructure and services are delivered early, allowing for the progressive occupation of units while works continue on later stages.

Phase 1 will comprise enabling works, including site clearance, earthworks, and the construction of the main access road from L-2040 Old Cork Road. Associated infrastructure, including foul drainage, surface water attenuation, and watermains, will also be delivered in this phase, together with the first tranche of residential units.

Phase 2 will involve the delivery of the central portion of the site, which will consist of the majority of residential units, secondary access streets, and associated services. Public open spaces and landscaping elements will be delivered progressively alongside the housing.

Phase 3 will complete the eastern portion of the site, including the remaining residential units, internal roads, and landscape buffers to adjoining lands.

Each construction phase will broadly follow the same sub-phases:

- Phase A: Earthworks, foundation, and site infrastructure works
- Phase B: Superstructure works
- Phase C: Façade and fit-out works
- Phase D: Landscaping and completion works

2.5.2 Site Establishment and Site Compound

The appointed Contractor will undertake site establishment works and will include the erection of secure perimeter hoarding and fencing around the site, formation of site access and egress points from the L-2040 Old Cork Road, and the installation of site signage and traffic management measures in accordance with the Construction Traffic Management Plan. A temporary site compound will be established to accommodate offices, staff welfare facilities, material storage areas, and designated waste segregation zones.

The size and configuration of the compound will vary during the works. During the enabling and earthworks phases, a larger compound area will be required to facilitate soil storage, plant movement, and segregation of excavated material. During the superstructure and fit-out stages, compound space will focus on storing and distributing construction materials and prefabricated elements.

Given the size and open nature of the Knockbrogan lands, there is sufficient space within the development boundary to provide the necessary compound and storage areas on-site, thereby avoiding the need for off-site storage.

The Main Contractor will maintain site security throughout the construction period. This will include the provision of secure hoardings, lockable gates, CCTV where required, and on-site supervision. Appropriate safeguards will be implemented to prevent unauthorised access and to protect adjoining lands, residents, and road users from any health and safety risks associated with the construction works.

2.5.3 Construction Hours

Construction works are proposed to be carried out between 07:00 and 19:00 Monday through Friday and 08:00 and 16:00 Saturday. No construction works will take place on Sundays or Bank Holidays unless otherwise agreed in advance with Cork County Council.

2.5.4 Construction Traffic

The impact of construction-related traffic on the local road network has been assessed in Chapter 6 – Material Assets: Traffic and Transportation. Mitigation measures are proposed where necessary.

Construction traffic will access the site via the L-2040 Old Cork Road. This arrangement will allow delivery vehicles to enter the site directly, thereby minimising disruption to passing traffic. The increase in construction traffic is expected to be modest, spread across the 36-month programme, and not considered excessive relative to the capacity of the local road network.

It is estimated that there will be a maximum of 15 HGVs accessing the site per day during the construction phase. Car parking for construction workers and contractors will be provided within the contractors carpark.

The contractor will also implement the Mobility Management Plan prepared by Hegsons, submitted under separate cover. This plan will promote sustainable travel by the workforce and will include measures such as:

- Walking: using the existing pedestrian network along the Cork Road.
- Cycling: provision of secure cycle parking within the compound, with staff facilities where practicable.
- Car Sharing: encouraging construction staff to travel together, with rostering to enable car-pooling.
- Public Transport: providing induction materials to staff highlighting local bus services (Routes 230, 236, 237 and 239) available in Bandon town centre.

2.5.5 Earthworks

A site investigation undertaken for the Knockbrogan lands confirmed that the ground conditions comprise topsoil overlying glacial tills and weathered bedrock, with competent bedrock encountered at relatively shallow depths. The stratigraphy across the site is broadly consistent, reflecting the agricultural use of the lands and the gently sloping topography.

The development has been designed to minimise cut and fill by aligning finished floor levels and proposed road levels as closely as possible to the existing ground levels. This approach will reduce the need for importing or exporting bulk fill material and will assist in maintaining a balance of earthworks across the site.

Uncontaminated excavated soil and subsoil will be reused on site where possible for fill and landscaping purposes, thereby reducing waste volumes. In the event of surplus uncontaminated material remaining, this will be transported off site for beneficial reuse at an appropriately licensed location by a permitted haulier.

In the unlikely event that any contaminated soils are encountered, these will be tested and assessed to determine potential reuse options. Subject to licensing requirements, suitable soils may be treated and retained on site for re-use; otherwise, contaminated material will be removed off site to an authorised facility.

Further details of earthworks, soil management, and the treatment of excavated material are set out in the Construction Environmental Management Plan (CEMP) and the Resource Waste Management Plan (RWMP), both of which accompany this application.

2.5.6 Construction Management Plan

A Construction Environmental Management Plan (CEMP) has been prepared and accompanies this application. The CEMP sets out the overarching framework for construction logistics, health and safety, traffic management, environmental objectives and targets, environmental protection measures, and waste management.

The plan provides details on the sequencing and organisation of works, demonstrating how construction can be delivered in a logical, efficient, and safe manner while incorporating specific measures to mitigate potential impacts on local residents, property, and the receiving environment.

The submitted CEMP represents an outline document at application stage. A more detailed Construction Management Plan will be prepared by the appointed Main Contractor prior to commencement, in consultation with Cork County Council, statutory undertakers, and other relevant stakeholders if required.

2.5.7 Construction Health and Safety

The appointed Main Contractor will be required to provide a best-practice working environment for all employees engaged in the construction of the proposed development, with full regard to statutory obligations and relevant guidance.

All construction activities will be undertaken in accordance with the *Safety, Health and Welfare at Work (Construction) Regulations 2013.* The Main Contractor will be required to prepare a detailed Construction Health and Safety Plan prior to commencement of works on site.

The overarching aim is to safeguard the health, safety, and welfare of all those working on site, as well as local residents, pedestrians, and road users who may be affected by the works. Site-specific safety issues that will need to be addressed during construction include:

- Management of excavation and earthworks, including handling and disposal of excavated material.
- Identification, storage, and handling of any hazardous or contaminated materials.
- Protection of existing roadways against damage during excavation and service installation.
- Identification, diversion, and connection to existing live services.
- Management of vehicular and pedestrian traffic on surrounding roads for the duration of works.
- Safe management of plant and crane movements to prevent lifting over live roadways or adjoining properties.

All Contractors engaged on the project will be required to exercise reasonable skill, care, and diligence at all times, proactively managing works to protect workers, visitors, and the wider community.

Health and safety requirements will be further detailed in the Main Contractor's Construction Management Plan and the Construction Stage Health and Safety Plan, both of which will be prepared by the Project Supervisor for the Construction Stage in advance of commencement.

2.5.8 Resource Waste Management Plan

A Resource Waste Management Plan has been prepared as part of this application.

This report outlines the Resource and Waste Management Plan (RWMP) for controlling, managing, and monitoring the resources and waste generated from a proposed residential development at Knockbrogan, Bandon, Co. Cork. The RWMP describes how the construction phase will adhere to applicable legislation, Best Practice Guidelines, and Local Authority Waste Management Policies.

The RWMP articulates how the main contractor intends to curtail construction waste and how the recycling and re-purposing of waste materials will be managed and encouraged. Strategies to be adopted include the following;

- Materials will be ordered "as-required", thereby preventing oversupply and potential damage to on-site stored bulk orders.
- The methods for storing and handling materials will be designed in such a way that damage and consequent waste are kept to a minimum.
- To reduce the volume of materials stored on site, a logical and efficient ordering sequence will be followed.
- All personnel, including subcontractors, will be educated on correct waste disposal practices during their inductions and through regular toolbox talks.

Please refer to the RWMP submitted under separate cover for further details.

2.6 Commissioning

There are an existing 10kVA power line running across the site. Site services including foul and surface water drainage, watermains, electricity, and telecommunications are being delivered under Phase 2 of the masterplan, and the Phase 3 development will connect into this infrastructure. The testing and commissioning of all new connections will be undertaken in accordance with the relevant codes of practice and in consultation with the respective statutory undertakers.

2.7 Decommissioning

The proposed residential development and associated site services are designed as permanent infrastructure, with a design life in excess of 60 years. The drainage, water, and utility networks commissioned under Phases 2 and 3 will form part of the long-term service provision for the overall Knockbrogan masterplan. Accordingly, for the purposes of the EIAR process, the development is considered permanent, and no decommissioning phase is assessed within this report.

2.8 Conclusion

This chapter has set out the development parameters for the proposed Large-Scale Residential Development at Knockbrogan, Bandon, Co. Cork and includes an overview of the architectural, landscape, and engineering strategy. Details of the proposed construction phasing have also been outlined. Further information on construction logistics, environmental management, and mitigation measures is contained in the Construction Environmental Management Plan (CEMP) and Resource Waste Management Plan (RWMP) prepared to support this application.

The proposed development represents the final phase of the coordinated Knockbrogan masterplan, consolidating earlier permitted phases and delivering a high-quality residential environment with permanent supporting infrastructure.

CHAPTER THREE

ALTERNATIVES

CHAPTER 3

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This chapter was prepared by Ciaran Dineen of McCutcheon Halley Chartered Planning Consultants. Ciaran holds a Bachelor of Science (BSc) degree in Government and Politics and a Master's in Planning and Sustainable Development (MPlan), both received from University College Cork. He has over 3 years' experience working with multi-disciplinary teams and has provided input into a variety of projects. He is a Corporate member of the Irish Planning Institute.

Directly relevant experience to this proposed development that Ciaran has been involved in is the formation of EIAR's, EIA and AA screening reports for a range of development projects. Relevant project experience includes large housing developments, single 'one – off' developments, submissions to local area plans and county development plans. Ciaran project managed and coordinated the preparation of this EIAR with input from a team of qualified specialists.

3.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) was prepared to consider alternatives as required by Annex IV (2) of the Environmental Impact Assessment (EIA) Directive 201/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by EIA Directive 2014/52/EU (the "**EIA Directive**") and in Schedule 6 of the Planning and Development Regulations 2001, as amended, (PDRs) which states;

> "A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment".

The PDRs identify that reasonable alternatives may include project design proposals, location, size and scale, which are relevant to the proposed development and its specific characteristics. The PDRs require that an indication of the main reasons for selecting the preferred option, including a comparison of the environmental effects be presented in the EIAR.

The Environmental Protection Agency Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, 2022 states:

> *The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with 'an indication of the main reasons for selecting the chosen option'. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or 'mini-EIA') of each alternative is not required.*

The Guidelines also state that the range of alternatives considered may include the 'do-nothing' alternative.

Notwithstanding the above, pursuant to Section 3.4.1 of the 2022 EPA Guidelines, the consideration of alternatives also needs to be cognisant of the fact that:

> "in ***some instances some of the alternatives described below will not be applicable*** – e.g. there may be no relevant 'alternative location'…" (emp. added)

The Guidelines are also instructive in stating:

> *"Analysis of high-level or sectoral strategic alternatives cannot reasonably be expected within a project level EIAR… It should be borne in mind that the amended Directive refers to 'reasonable alternatives… which are relevant to the proposed project and its specific characteristics'".*

This chapter of the EIAR provides an outline of the main alternatives examined for the proposed development and sets out the main reasons for choosing the development as proposed.

The assessment of alternatives is considered under the following headings:

i. 'Do-nothing' Alternative
ii. Alternative Locations
iii. Alternative Uses
iv. Alternative Project Design

3.2 Consideration of Alternatives

3.2.1 Do Nothing

3.2.1.1 Actual Do Nothing

The 'Do-nothing' alternative is a general description of the evolution of the key environmental factors of the site and environs if the proposed project did not proceed. Each Chapter of this EIAR includes a description of the 'Do Nothing' alternative and should be referenced in conjunction with this Chapter.

The development site has been zoned for residential development in the Cork County Development Plan 2022. It is a greenfield parcel of land situated in an area where there has been newly constructed residential development to the west. The site has access to infrastructure and services.

In a 'Do-Nothing' scenario, the proposed development site would remain in its current condition, and it would not fulfil its residential zoning objective nor assist in the delivery of housing units at a period of national housing shortage. Accordingly, there would be an adverse impact on population, as this approach would fail to address the shortage of homes in Cork County. Maximising the efficiency of zoned and serviced residential land particularly when nationally, there is a housing crisis and as a result, the delivery of housing on zoned land in a timely manner is of critical importance.

When compared with the proposed development, the key difference between the Do-Nothing and the proposed development is the delivery of new homes, and its consequential negative impact for population when compared with the alternative, the delivery of 212 new homes.

Under the Do-Nothing alternative, there would be no new residential neighbourhood within the proposed development site. However, this is likely to be short-term having regard to the fact that the site is zoned for residential development. The proposed development will change the character of the landscape and harmonise with the surrounding development. Any resulting impact of this can be managed by well-considered, high-quality design, that respects the setting.

To conclude, the Do-nothing alternative is an inappropriate and unsustainable approach that would result in the inefficient use of a strategically located and serviced zoned residential lands located in Bandon. With the mitigation measures proposed in this EIAR and having regard to the findings that no significant impacts on the environment are expected with such measures in place, the comparative environmental impacts are not considered sufficient to rule out the proposed development.

The primary likely significant environmental impacts of the proposed development are fully addressed in the relevant specialist Chapters of this EIAR. These impacts relate to Population & Human Health, Land & Soil, Water & Hydrology, Landscape & Visual, Noise & Vibration, as well as Air Quality & Climate associated with the proposed development.

The proposed development has the potential for cumulative, secondary, and indirect impacts. These can be difficult to quantify due to complex inter-relationships. All interactions and cumulative impacts have been addressed in Chapter 17 Significant Interactions with cumulative impacts and interactions fully addressed in the relevant specialist Chapters of this EIAR.

3.2.2 Alternative Locations

The Department of Housing, Planning and Local Government (2018) Guidelines for Planning Authorities and An Coimisiún Pleanála – states;

> *"The Directive requires that information provided by the developer in an EIAR shall include a description of the reasonable alternatives studied by the developer. These are reasonable alternatives which are relevant to the project and its specific characteristics. The developer must also indicate the main reason for the option chosen taking into account the effects of the project on the environment. Reasonable alternatives may relate to matters such as project design, technology, location, size and scale.*
>
> *The type pf alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment. For example, some projects may be site specific so the consideration of alternative sites may not be relevant. It is generally sufficient for the developer to provide a broad description of each main alternative studied and the key environmental issues associated with each. A 'mini-EIA' is not required for each alternative studied."*

We also refer to the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA. 2022), which states that in some instances alternative locations may not be applicable or available for a specific project which is identified for a specific location.

An alternative location would essentially result in a 'do nothing' scenario for the site.

3.2.3 Alternative Uses

The primary determinant of suitable uses is established in the site's zoning which are set out in the Cork County Development Plan 2022-2028.

The primary determinant of suitable uses is established in the site's zoning. The proposed development according to the Cork County Development plan 2022-2028 the site is zoned BD-R-03, which outlines;

> "Medium A Residential Development. Development of this site should be accompanied by a Traffic Assessment illustrating how the site will connect to the proposed North Bandon Connectivity and Access Corridor (BD-U-02) and existing road network in the vicinity.
>
> The layout also needs to make provision for pedestrian and cycleway links with existing adjoining residential areas and future links with the school campus.
>
> Proposals for this development are to include provision for an overall landscaping plan to assimilate the scheme into the hillside and should include retention of mature trees and boundaries."

As the site is zoned for residential use, the consideration of alternative (non-residential) uses is not applicable.

3.2.4 Alternative Processes

Due to the nature and scale of the proposed development (i.e. a residential development greater than 100 units) the only option is to submit a Large-Scale Residential Development (LRD) planning application to Planning Authority. Therefore, there is no alternative process to consider.

3.2.5 Alternative Design (including size & scale)

The layout of the proposed development went through a detailed design process with input from Cork County Council and the entire applicant's design team and the EIAR team.

3.2.5.1 Alternative Design No. 1 – Initial Sketch

Alternative Design No. 1 was developed as part of early development proposals prior to the submission of design proposals to Cork County Council. At this stage, the layout proposed to retain a strip of natural vegetation along the southern boundary as an 'amenity walk'. The layout also allowed for a creche building.

The layout mixed a number of medium scale open amenity areas with dwellings orientated to minimise east facing rear elevations and to follow site contours where possible. The overall scheme was developed under significant constraints, including limited options for vehicular access and the steep topography of the site.. It was understood by the full design team at the time that further consideration would be given to the amenity walk viability, proximity to a potential development north of the site and how a proposed landscape concept yet to be developed would impact on the design.

With a planning application lodged by the applicant, for a creche building on its own site, which was ongoing, the requirement for a creche building was still yet to be determined.

Figure 3.1 Initial Scheme

Table 3.1 Key Site Statistics – Alternative Design 1

Site Statistics	Alternative 1 – Initial Layout Developed
Site Area	7.794 ha
Total No. Units	212
Creche	400sqm
Density	32.77
Open Space	16.5%

3.2.5.2 Alternative Design No. 2 – S.247 – Meeting Held 03/03/25

Alternative Design No. 2 was presented to Cork County Council and discussed as part of the Section 247 pre-planning application meeting held on 3rd March 2025. This meeting was to discuss the Large-Scale Residential Development Proposal. At this stage the proposal consisted of a total of 210 no. units at a density of 32.77 units/ha, along with the provision of 1 no. childcare facility to cater for both the permitted development to the west and any future development.

The alterations between the initial design and the submitted design at this stage were minimal conceptually mainly included adjustments to proposed site levels by the engineering team and minor movement and realignment of housing units. 2 no. units were removed from a location where the existing site levels prevented suitable falls for drainage. Advice was taken from the landscape architect and implemented.

Figure 3.2 Alternative Design No. 2

Table 3.2 Key Site Statistics – Alternative Design 2

Site Statistics	Alternative 1 – Initial Layout Developed
Site Area	7.794 ha
Total No. Units	210
Creche	400sqm
Density	32.46
Open Space	16.5%

The Council provided feedback on this layout including the following key points:

- Concern of over exposure of rear elevations of the development
- How the development will provide a sense of community with emphasis on step down housing
- Ensure parking standards are met, specifically two private spaces per dwelling
- No remarks on verbal proposal at meeting to move the amenity walk from the green buffer zone along the south boundary into the centre of the scheme taken as opportunity to investigate this option further.
- Discussion on removing the creche from the layout in light of an optimistic positive result from the ongoing creche planning application and suggestion by the design team that this would be replaced by housing and possibly step-down housing.
- Request by Council engineers to remove the north access route from the permitted development, and to stop the road at the new site boundary, resulting in one vehicular site entrance.

3.2.5.3 Alternative Design No. 3 – S.32B – Meeting held 13/06/25

Alternative Design No. 3 was presented to Cork County Council and discussed as part of a Section 32B meeting held with Cork City Council, held on 9th July 2025.

At this stage the proposal consisted of 214 no. units. The density proposed was 31.8 units/ha and the layout now omitted the childcare facility and replaced this building with 4 no. units. Useable open space was 13.7%.

The layout remained conceptually similar to the layout submitted for the Section 247 stage. Alterations included further road and unit alignment fixes and response to the landscape architect proposals. An important alternation was the redirection of a proposed amenity walk along a green buffer zone at the south boundary into the centre of the scheme as part of a green ribbon enhanced by the landscape architect, and a rationale agreed that locating an amenity walk in the original location raised concerns by the developer of a lack of surveillance and the requirement for inappropriately located public lighting.

With a permission granted for the creche outside the site, it was now required to remove this option, and the developer replaced this building with 4 no. units. The 2nd vehicular access point was now closed off as requested by the council.

Any layout concerns raised by the council i.e. overexposure of rear elevations, did not lead to layout alterations conceptually as alternatives considered would not improve the design. i.e. the section 247 submission had 16% south facing exposed rear elevations.

Figure 3.3 Alternative Design No. 3

Table 3.3 Key Site Statistics – Alternative Design 3

Site Statistics	Alternative 3 –Submitted to Council for S.32b
Site Area	7.844ha
Total No. Units	214
Creche	N/A
Density	31.8
Open Space	13.7

The Council provided feedback on the layout presented at S.32B which included the following key points:

- Concern on lack of step-down housing
- Concern on road dominant scheme
- Concern on overlooking of rear gardens from central spine road
- Concern on proximity of most southern units to the south boundary and resultant width of the green buffer natural habitat zone
- Concern over exposure of alpha block retaining walls
- Concern on suitability of the 'home-zones' as ad-hoc play areas due to parking.
- Concern on allocation on amenity space 5 as total 'usable'.

3.2.5.4 Final Design – Submitted for Planning

The final design directly responds to the Council's comments and is overall an accumulation of high-quality design stemming from design team input and feedback from Cork County Council throughout the planning process.

The layout proposes 212 no. units with a density of 32 units/ha. Useable open space measures 16.3%.

The comments suggested by the Council following the S.32B meeting were addressed where appropriate. Where comments/concerns/suggestions were given and not acted on, a rationale has been provided in the design statement.

The only site layout conceptual design change includes the relocation of dwellings 1-4 towards the west boundary which omits amenity space no. 2 and creates a larger amenity space no. 2 north of unit 4.

The design team carried out feasibility studies on suggested alterations or improvements to the design and the results did not improve the scheme.

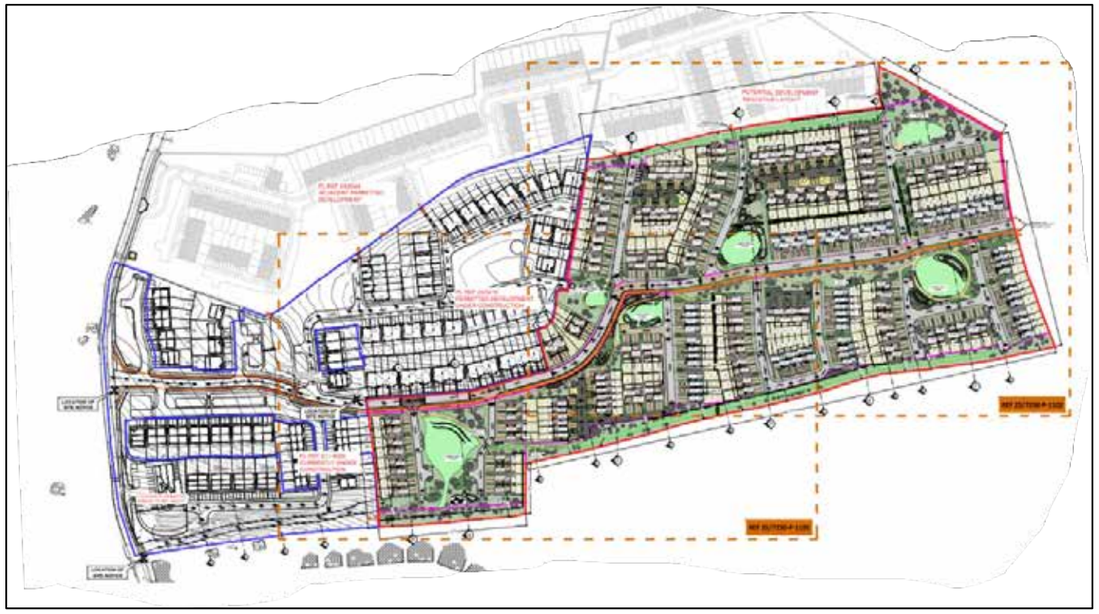

Figure 3.4 Final Design

Table 3.4 Key Site Statistics – Final Design

Site Statistics	Final Design – Submitted to Council for Planning
Site Area	7.998
Total No. Units	212
Density	32
Open Space	16.3%

3.3 Difficulties Encountered

There were no difficulties encountered in the preparation of this assessment for the proposed development.

3.4 Proposed Preferred Alternatives

The final design directly responds to the stakeholder feedback and is overall an accumulation of high-quality design stemming from the design team input and feedback from Cork County Council throughout the planning process.

The layout proposes 212 no. units with a density of 32 units/h. Useable open space measures 16.3%.

3.5 Conclusion

On the basis of the foregoing, it is considered that all reasonable alternatives to the project are considered, and no alternatives have been overlooked which would significantly reduce or further minimise environmental effects. Having considered all alternatives, the final design chosen by the applicant as presented is deemed to be the most suitable project for the site.

CHAPTER FOUR

POPULATION & HUMAN HEALTH

CHAPTER FOUR

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CHAPTER 4 | POPULATION & HUMAN HEALTH

4.1 Introduction

According to the European Commission's Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report (2017), human health is; *"a very broad factor that would be highly project dependent. The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation, and decommissioning of a Project in relation to workers on the Project and surrounding population."*

The Environmental Protection Agency (EPA) Guidelines on the Information to be contained in Environmental Impact Assessment Reports (2022) advise that *"in an EIAR, the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in this EIAR e.g. under the environmental factors of air, water, soil etc."*

This chapter addresses the likely significant environmental impacts of the proposed development on population and human health. It is noted that other chapters of the EIAR also deal with likely significant environmental effects on population and human health arising from traffic and transportation, air quality and climate, noise and vibration, landscape and visual, material assets: utilities and the risk of major accidents and/or disasters and those chapters should be referenced in conjunction with this chapter of the EIAR.

4.2 Expertise and Qualifications

This chapter was prepared by Ciaran Dineen of McCutcheon Halley Chartered Planning Consultants. Ciaran holds a Bachelor of Science (BSc) degree in Government and Politics and a Master's in Planning and Sustainable Development (MPlan), both received from University College Cork. He has over 3 years' experience working with multi-disciplinary teams and has provided input into a variety of projects. He is a Corporate member of the Irish Planning Institute.

Directly relevant experience to this proposed development that Ciaran has been involved in is the formation of EIAR's, EIA and AA screening reports for a range of development projects. Relevant project experience includes large housing developments, single 'one – off' developments, submissions to local area plans and county development plans. Ciaran project managed and coordinated the preparation of this EIAR with input from a team of qualified specialists.

4.3 Proposed Development

A full description of the proposed development is provided in Chapter 2, Project Description. Please also Refer to the Site Layout Plan prepared by Brian O' Kennedy & Associates Ltd. In summary, the subject application is for a Large-Scale Residential Development (LRD) comprising of the construction of 212 no. residential units and all ancillary development works including footpaths, car and bicycle parking, drainage, bicycle and bin stores, lighting and landscaping/amenity areas at Knockbrogan, Bandon, Co. Cork. Access will be provided via the existing access road onto the Cork Road permitted under reference 21/4059.

4.4 Methodology

This chapter has been prepared pursuant to Schedule 6 of the Planning and Development Regulations 2001 (as amended). Section 2 of Schedule 6 sets out the additional information relevant to the specific characteristics of the project required, which includes a description of the likely significant effects on the environment of the proposed development resulting from, among other things;

> *(IV) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters).*

The Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) state that:

> "… in an EIAR, the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g., under the environmental factors of air, water, soil, etc."

Recital 22 to the EIA Directive provides that:

> "in order to ensure a high level of protection of the environment and human health, screening procedures and environmental impact assessments should take account of the impact of the whole project in question, including, where relevant, its subsurface and underground, during the construction, operational and, where relevant, demolition phases."

The EPA Advice Notes (EPA 2003) recommend considering the following issues when assessing the potential impacts and effects of a proposed development on Population and Human Health:

- Economic Activity Likely to Lead to Projects – Will the development stimulate additional development and/or reduce economic activity, and if either, what type, how much and where?
- Social Consideration – will the development change the intensity of patterns and types of activities and land use?
- Land Use – will there be severance, loss of rights of way or amenities, conflicts, or other changes likely to ultimately alter the character and use of the surroundings?
- Tourism – will the development affect the tourism profile of the area?
- Health – have the vectors through which human health impacts could be caused been assessed, including adequate consideration of inter relationships between those assessments

4.4.1 Relevant Legislation and Guidance

Publications and other data sources consulted include:

- Revised National Planning Framework Ireland 2040 – Our Plan (Government of Ireland, 2018);
- Southern Regional Spatial and Economic Strategy 2019-2031;
- Cork County Development Plan 2022-2028;

- Central Statistics Office (CSO) website www.cso.ie;
- Department of Education (DE) website https://www.gov.ie/en/organisation/department-of-education/;
- Pobal website https://maps.pobal.ie/; and
- Health and Safety Authority website https://hsa.ie.

Additionally, reports prepared by McCutcheon Halley Planning Consultants included with this application under separate cover were consulted, as follows:

- Childcare Demand Report;
- School Demand Assessment Report; and
- Planning Statement

This chapter has been prepared having regard to the following guidelines:

- Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning & Local Government, 2018)
- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017);
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022)

The impact assessment section of this chapter follows the terminology (where applicable) used in the EPA Guidelines as set out in Chapter 1 of this EIAR

4.5 Baseline Environment

4.5.1 Application Area

The greenfield site of c. 7.98ha is located within the townland of Knockbrogan approximately 500m north of Bandon town centre, Co. Cork. The site is accessed via the existing Cork Road located to the west. The area surrounding the site is predominantly residential in character. Located to the north of the site are the Ard an Chuillin and the Hawhorns residential estates. The residential development of Radharc an Bhaile is located to the south of the development and agricultural greenfield site bounds the land to the east and immediately north of the site. The character of dwellings surrounding the site range in size comprising of detached, semi-detached and terraced houses. Permission has been granted for 59 no. units for the Phase 1 development (Ref: 21/4059/AB{ 312689-22) located to the west of the site and works are currently under way fore this development.

Figure 4.1 Application Area and Surrounding Context

4.5.2 Land Use Zoning

In accordance with the Cork County Development Plan (CDP) 2022-2028, the subject site is zoned BD-R-03, which objective outlines:

> *"Medium A Residential Development*
>
> *Development of this site should be accompanied by a Traffic Assessment illustrating how the site will connect to the proposed North Bandon Connectivity and Access*
>
> *Corridor (BD-U-02) and existing road networks in the vicinity.*
>
> *The layout also needs to make provision for pedestrian and cycleway links with existing adjoining residential areas and future links with the school campus.*
>
> *Proposals for this development are to include provision for an overall landscaping plan to assimilate the scheme into the hillside and should include retention of mature trees and boundaries"*

Figure 4.2 Site Zoning from the Development Plan (outlined in black).

4.5.3 Surrounding Land Uses

The land surrounding the proposed site comprises a mix of uses, predominantly residential. Housing estates are located to the north and south of the site, while Phase 1 of the development to the west has been completed, and Phase 2 is scheduled to commence construction.

The subject site lies north of Bandon town centre, which hosts a variety of facilities and amenities. The town centre is a ten-minute walk away. Some of the facilities and amenities that can be found include a range of cafes and restaurants, retail, doctors, dentists, and the Garda station.

The site is located nearby to sporting and amenity facilities, retail opportunities and is located across the road from a secondary school, making it an attractive area to provide new residential development.

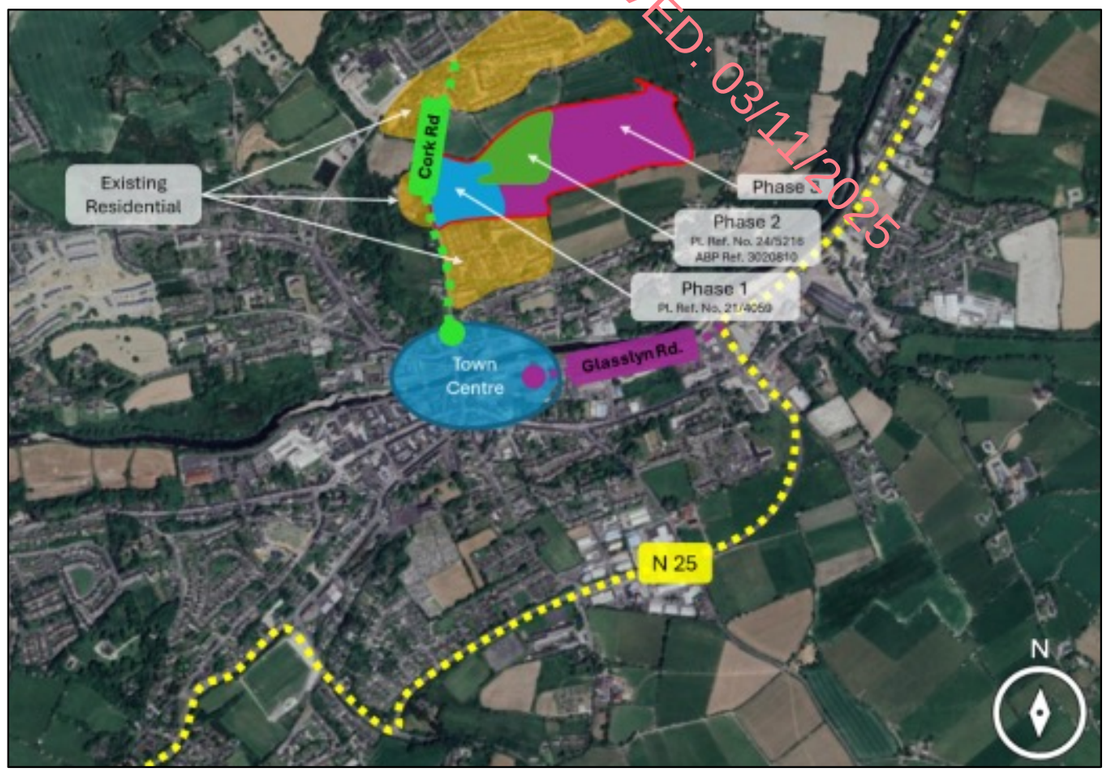

Figure 4.3 Surrounding Land Uses in the context of the development site

4.5.4 Public Transport and Accessibility

The Site is within a short walking distance of nearby bus stops. The closest bus stops to the development are located at Glasslynn Road, approximately 750m from the site. Bus Eireann operate a number of rural intertown bus routes which pass through Bandon linking Bandon to Cork City and other towns in West Cork. There are also a number of local school bus operators in the town.

These routes include:

- 236 (Cork – Dunmanway – Bantry – Glengarriff – Castletownbere). Service operates 9 times a day.
- 237 (Cork – Clonakilty– Skibbereen – Goleen). Service operates 8 times a day; and
- 239 (Cork – Bandon – Courtmacsherry – Bulterstown). Service operates 8 times a day.

Cork County Council, in collaboration with the Cork National Roads Office and Transport Infrastructure Ireland, are currently exploring Phase 2 – Option Selection of a proposed West Cork greenway linking Crossbarry to Clonakilty via Bandon.

This Greenway, which will pass through Bandon, will improve opportunities for cycling in Bandon and surrounding areas. These greenway routes also offer commuting options for those who like to travel by bike or e-bike and may also encourage the use of alternative modes of transport to commute or go about daily activities.

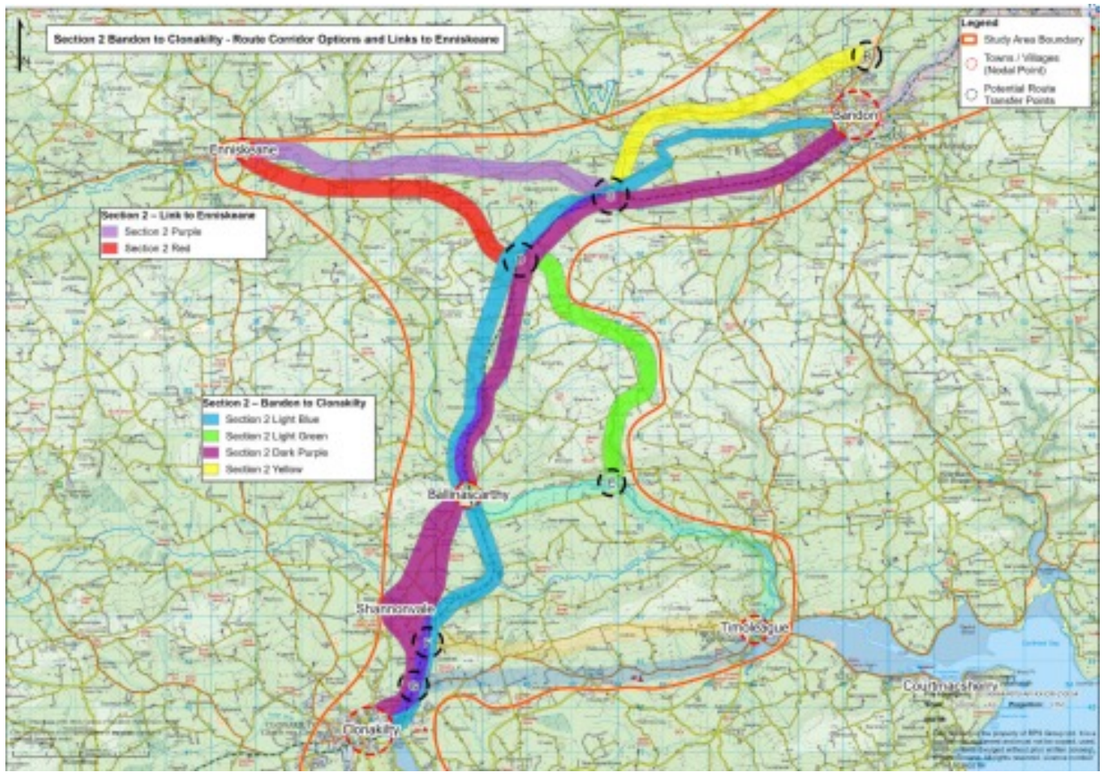

Figure 4.4 Potential Greenway Routes for West Cork Greenway from Bandon to West Cork

When looking at how the population of Bandon commute to work or school, between the Census period of 2016/2022 (See Table 1), it is evident that there has been an increase in those travelling by foot (25%), by bicycle (170%) and by bus, minibus or coach (25.1%) . These figures show that the population is increasingly looking to alternative modes of transport in order to commute. With the potential development of the West Cork Greenway and other development of footpaths and cycle lanes in Bandon, these figures will be expected to rise as safer infrastructure is linked with higher rates of bicycle usage.

Table 4.1 Commuter Modes of transport in Study Area

Population aged 5 years and over by means of travel to work, s	Study Area				Cork County a	Ireland
All Commuters	2016 (#)	2022 (#)	Change	2022 (%)	2022 (%)	2022 (%)
On foot	665	831	25.0%	14.7%	11.9%	12.6%
Bicycle	10	27	170.0%	0.5%	1.2%	2.7%
Bus, minibus or coach	323	404	25.1%	7.1%	7.6%	9.0%
Train, DART or LUAS	1	9	800.0%	0.2%	0.5%	2.4%
Motorcycle or scooter	9	9	0.0%	0.2%	0.2%	0.3%
Car driver	1,955	2,188	11.9%	38.7%	38.2%	34.7%
Car passenger	1,058	1,357	28.3%	24.0%	21.8%	19.1%
Van	144	184	27.8%	3.3%	4.1%	4.1%
Other (incl. lorry)	13	22	69.2%	0.4%	0.4%	0.4%
Work mainly at or from home	74	283	282.4%	5.0%	7.9%	7.4%
Not stated	162	342	111.1%	6.0%	6.0%	7.4%
Total	4,414	5,656		100.0%	100.0%	100.0%

Further planned network expansion improvements of off-road pedestrian and cycle facilities are identified near the site in the CycleConnects Urban Cycle Plan for Bandon Plan. Substantial off-road and on-road cycling/pedestrian facilities are proposed in the vicinity of the site connecting Bandon town centre and beyond. CycleConnects sets out proposals to improve the urban local cycle network. Within Bandon, a network of Primary and Secondary Urban routes run to the north and south of the Old Cork Road / subject site respectively and a proposed Greenway is proposed to the west of the subject site.

4.5.5 Air Quality

The interactions between air quality and human health have been considered, as the operational phase may pose health risk due to dust nuisances and potential traffic-related air pollutants. However, the mitigation measures employed at the proposed development will ensure that all impacts are compliant with ambient air quality standards and human health will not be affected. Furthermore, traffic related pollutants have been assessed and determined as not significant, therefore, air quality impacts from the proposed development are not expected to have a significant impact on population and human health.

4.5.6 Population

This section reviews the demographic characteristics, population, and age structure of areas surrounding the development site. This has been undertaken by reviewing the settlement of Bandon as defined by the CSO Census statistics for both 2016 and 2022 Censuses. Figure 4.5 below identifies the geographical area for Bandon as defined by the 2016 Census and the 2022 Census.

The population of the study area increased from 6,957 to 8,196 from 2016 to 2022, which is an increase of 17.8% in the inter-census period.

Figure 4.5 Census Map of Bandon 2016 and 2022

There was an increase in population for all age groups as identified in Table 4.2, aside from the age cohorts of 0-4 years and 30-34 years.

Based on the demographic changes in population as per Table 4.2, while the proportion of young people in Bandon is increasing, the town is also showing trends of an aging population. In those aged 75-79 there has been a 34.8% increase from 2016 to 2022, while there has also been a 55.6% increase in the population of those aged 85 and over.

Table 4-2 Population Data from 2016 and 2022 Census for Bandon

Theme 1: Sex, Age and Marital Status					SELECT Area of Comparison	SELECT Area of Comparison
Population aged 0 - 19 by sex and year of age, persons aged 20	Study Area				Cork County a	Ireland
Persons	2016 (#)	2022 (#)	Change	2022 (%)	2022 (%)	2022 (%)
Age 0 - 4	554	549	-0.9%	6.7%	5.7%	5.7%
Age 5 - 9	580	585	0.9%	7.1%	6.6%	6.7%
Age 10 - 14	441	618	40.1%	7.5%	7.2%	7.3%
Age 15 - 19	433	533	23.1%	6.5%	6.5%	6.6%
Age 20 - 24	383	420	9.7%	5.1%	6.0%	6.0%
Age 25 - 29	393	427	8.7%	5.2%	5.6%	5.7%
Age 30 - 34	607	547	-9.9%	6.7%	6.3%	6.5%
Age 35 - 39	636	709	11.5%	8.7%	7.3%	7.4%
Age 40 - 44	534	712	33.3%	8.7%	8.0%	8.0%
Age 45 - 49	474	598	26.2%	7.3%	7.3%	7.3%
Age 50 - 54	424	533	25.7%	6.5%	6.6%	6.6%
Age 55 - 59	371	459	23.7%	5.6%	6.1%	6.0%
Age 60 - 64	310	414	33.5%	5.1%	5.4%	5.3%
Age 65 - 69	263	341	29.7%	4.2%	4.6%	4.6%
Age 70 - 74	208	270	29.8%	3.3%	4.0%	3.9%
Age 75 - 79	155	209	34.8%	2.6%	3.1%	3.0%
Age 80 - 84	110	146	32.7%	1.8%	1.9%	1.9%
Age 85 and over	81	126	55.6%	1.5%	1.7%	1.6%
Total	6,957	8,196	17.8%	100.0%	100.0%	100.0%

4.5.7 Households

The CSO Census data reveals trends in relation to household types across both the 2016 and 2022 Censuses which provide insights into household composition. The statistics reveal that the study area comprises a large proportion of 1 and 2 person households, with these household types amounting to 52.6% of the total households in the study area. This largely aligns with household type data atnational level (52.1%). Overall, the total number of households in Bandon has increased from 2,648 to 3,037, an increase of 10.9%. This data reflects the recently constructed residential developments in the area, and also takes into account the expanded geographical spread of Bandon as identified in the Census from 2016 – 2022 (See Figure 4.5).

Table 4.3 below also illustrates that there has been an 18% increase in the number of 3 and 4 person households in Bandon in the inter-census period.

Table 4 3 Census 2016 - 2022, 1-2 Person Households

Private households by size	Study Area				Cork County a	Ireland
Households	2016 (#)	2022 (#)	Change	2022 (%)	2022 (%)	2022 (%)
1 person households	725	768	5.9%	25.3%	23.5%	23.1%
2 person households	722	829	14.8%	27.3%	28.8%	29.0%
3 person households	467	566	21.2%	18.6%	17.8%	17.9%
4 person households	443	546	23.3%	18.0%	17.1%	16.9%
5 person households	196	212	8.2%	7.0%	9.0%	8.9%
6 person households	67	80	19.4%	2.6%	2.8%	3.0%
7 person households	21	24	14.3%	0.8%	0.7%	0.8%
8 or more persons households	7	12	71.4%	0.4%	0.3%	0.4%
Total households	2,648	3,037		100.0%	100.0%	100.0%

4.5.8 Depreivation Index

The Pobal Deprivation Index is Ireland's most widely used social gradient metric, which scores areas in terms of affluence or disadvantage. The index uses information from Ireland's census, such as employment, age profile and educational attainment, to calculate this score. Figure 4.6 shows the level of affluence and deprivation at the Small Area level as per the Pobal HP Deprivation Index.

Generally, across the town of Bandon, scores range from Disadvantaged to Affluent. The index score for the small area of Kilbrogan, within which the site is located, is 6.26, which constitutes as Marginally Above Average. According to the 2022 Pobal HP Deprivation Index, Cork has an average deprivation score of 2.69, which is notably higher (indicating more affluence) than the national average of 0.56.

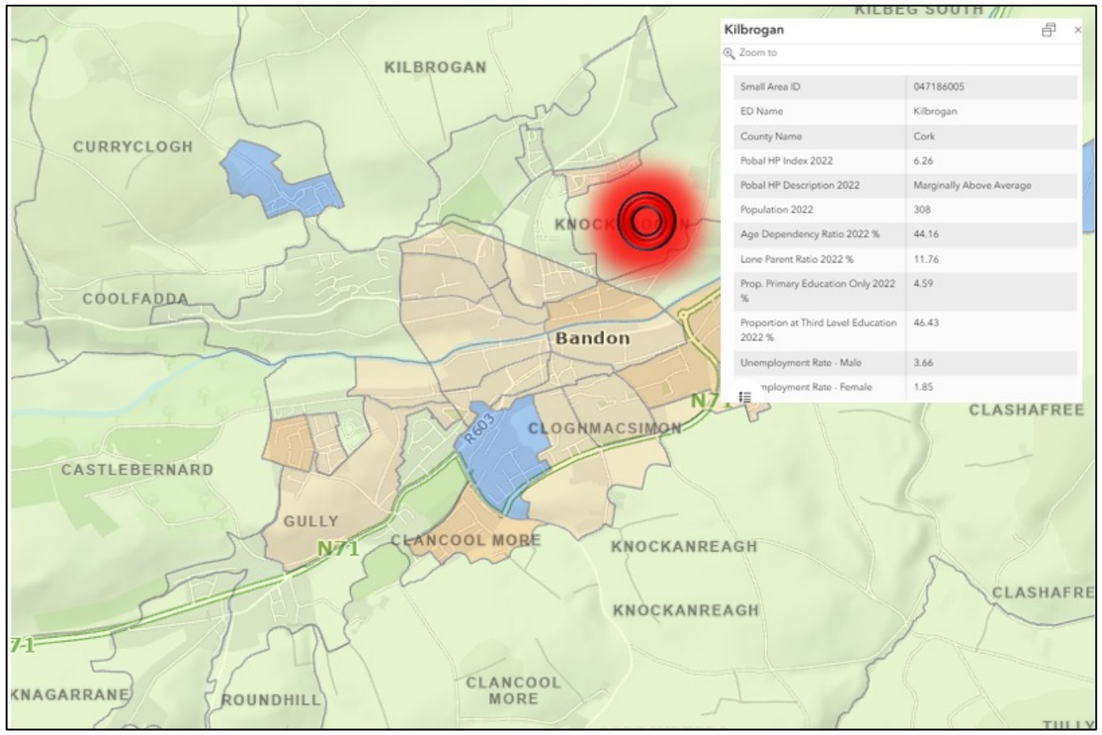

Figure 4.6 Deprivation Index Scores

4.5.9 Housing Delivery

The Department of Housing Planning and Local Government, on behalf of the Government, prepared and published the National Planning Framework (NPF) under Project Ireland 2040, the overarching policy and planning framework for the social, economic, and cultural development of our country.

On the 8th of April 2025, the Government approved the Revised National Planning Framework (NPF) which, will create the conditions for accelerated housing delivery in Ireland. This follows a comprehensive NPF revision process which has been underway since June 2023 and the publication of a population projections report by the Economic and Social Research Institute (ERSI).

As part of the overall target population growth between now and 2040, the NPF indicates a projected increase in population to 6.1 million persons, an increase of 300,000 compared to the original NPF estimate.

National Policy Objective 42 outlines its plan to target the delivery of housing to accommodate approximately 50,000 additional homes per annum by 2040. The NPF Sets a specific target of 303,000 new homes between 2025 and 2030, averaging over 50,500 units per year, with a gradual increase from 41,000 units in 2025 to 60,000 units by 2030.

According to the revised NPF, the population of Cork City and Suburbs is expected to rise to a minimum of 320,000 persons, representing an increase of 40% from the population recorded in 2022.

Despite these revised targets, current housing delivery is falling short. According to the CSO New Dwelling Completions Q4 2024 Report, only 30,330 new dwellings were completed in 2024—a 6.7% decrease from 2023 and below the Housing for All annual target of 33,000 homes.

The ongoing shortfall in housing supply highlights the urgency to address the situation with immediate effect. This is reflected in the ongoing commentary regarding the anticipated failure to meet the housing targets outlined by the revised NPF in 2025 and 2026.

4.5.10 Tenure

A majority of households in the study area comprise of persons who either own their own homes outright or own with a mortgage or loan. According to Census 2022 data, 30.2% of households fall into the former of these categories while an additional 25.3% fall into the latter. The figure for owned outright dwellings suggests that there is a high number of households who are long-established in the area and who have purchased their homes some years ago. However, these figures are lower than the national average of 37% owned outright and 28.9% owned with mortgage or loan.

Table 4-4 Census 2016 – 2022, Permanent Private Households by type of Occupancy

Permanent private households by type of occupancy	Study Area				Cork County a	Ireland
Households	2016 (#)	2022 (#)	Change	2022 (%)	2022 (%)	2022 (%)
Owned with mortgage or loan	699	768	9.9%	25.3%	28.0%	28.9%
Owned outright	727	916	26.0%	30.2%	38.1%	37.0%
Rented from private landlord	680	720	5.9%	23.7%	17.8%	18.0%
Rented from Local Authority	367	414	12.8%	13.6%	8.7%	8.3%
Rented from voluntary/co-operative housing body	60	82	36.7%	2.7%	1.5%	1.6%
Occupied free of rent	42	36	-14.3%	1.2%	1.8%	1.7%
Not stated	66	99	50.0%	3.3%	4.0%	4.4%
Total	2,641	3,035		100.0%	100.0%	100.0%

Higher amounts of households are renting from Local Authorities (13.6%) within the study area compared to statistics for both Cork County (8.7%) and the national average (8.3%), with an additional 2.5% of households being rented from a voluntary/co-operative housing body almost double the countywide average of 1.3%.

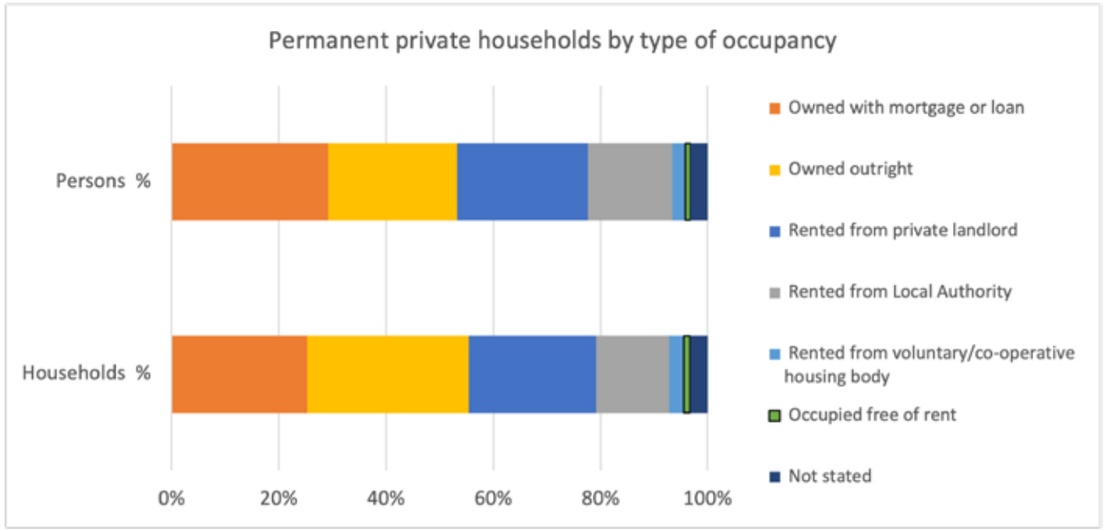

Figure 4.7 Percentage of people according to occupancy type, Bandon

4.5.11 Employment

The study area indicates that the majority of persons are currently working, with 55.9% identifying that they are currently employed in Census 2022. This is a 25.1% increase compared to the same status from the 2016 Census. The student population in the area is slightly lower on average compared to the average across Cork County and higher again than the national average. According to the results from the 2022 Census, the proportion of persons within the population of the study area who have identified their principal status as 'student' is 10%. This is lower than both Cork County (11.6%) and the national average (11.1%).

Table 4-5 Population Aged 15 or Over By Principal Economic Status

Theme 8: Principal Status						
Population aged 15 years and over by principal economic statu	Study Area				Cork County a	Ireland
Persons	2016 (#)	2022 (#)	Change	2022 (%)	2022 (%)	2022 (%)
At work	2,881	3,605	25.1%	55.9%	56.2%	56.1%
Looking for first regular job	51	80	56.9%	1.2%	0.7%	0.8%
Unemployed having lost or given up previous job	420	302	-28.1%	4.7%	3.4%	4.3%
Student	537	642	19.6%	10.0%	11.6%	11.1%
Looking after home/family	497	491	-1.2%	7.6%	6.9%	6.6%
Retired	675	878	30.1%	13.6%	15.7%	15.9%
Unable to work due to permanent sickness or disability	297	394	32.7%	6.1%	4.9%	4.6%
Other	24	52	116.7%	0.8%	0.7%	0.7%
Total	5,382	6,444		100.0%	100.0%	100.0%

The number of persons identified as being retired has increased by 30.1% over the inter-census period, with 13.6% of the study area population selected this status in the 2022 Census. This number is slightly lower than Cork County (15.7%) and the national average (15.9%).

4.5.12 Commuting

Census 2022 statistics also provide information in relation to commuting patterns for the population. According to the results obtained from the study area, over 60% of the population aged 5 years and over commute to work/ school within a 30 minute time period. This is above the average across Cork County and the nation, suggesting that the study area is located close to both employment locations and educational institutions.

Table 4-6 Commuter Journey Time

Population aged 5 years and over by journey time to work, sch	Study Area				Cork County a	Ireland
Commuters	2016 (#)	2022 (#)	Change	2022 (%)	2022 (%)	2022 (%)
Under 15 mins	1,902	2,035	7.0%	39.8%	30.4%	29.4%
1/4 hour - under 1/2 hour	925	1,046	13.1%	20.5%	30.6%	28.1%
1/2 hour - under 3/4 hour	851	983	15.5%	19.2%	18.4%	17.3%
3/4 hour - under 1 hour	250	351	40.4%	6.9%	5.5%	5.9%
1 hour - under 1 1/2 hours	128	174	35.9%	3.4%	4.7%	6.1%
1 1/2 hours and over	23	59	156.5%	1.2%	1.4%	2.5%
Not stated	261	461	76.6%	9.0%	9.1%	10.7%
Total	4,340	5,109		100.0%	100.0%	100.0%

4.5.13 Social Infrastructure

Social infrastructure includes a wide range of services and facilities, including education, health, community, cultural, play, faith, recreation and sports facilities that contribute to the quality of life. The LRD planning application is accompanied by a **Childcare Demand Report (CDR)** and a **School Demand Assessment (SDA)**, which should all be read in conjunction with this chapter. In summary, these reports confirm that sufficient facilities are available in the area and that these facilities can adequately provide for the new population anticipated as part of this development. In addition, this Chapter details information on nearby healthcare, recreation and retail facilities in the area.

4.5.13.1 Education and Childcare

The School Demand Assessment (SDA) that accompanies the planning application has identified the primary and post-primary schools which are available in Bandon. The results show that there are 4 no. primary schools and 4 no post-primary schools located within Bandon, with an estimated capacity of 832 enrolments for the primary schools and 2,572 enrolments for post primary schools.

A full list of the schools identified in the area are found in the SDA, with information regarding enrolments and capacity also outlined in the report, while Figure 4.8 below denotes the location of schools in proximity to the site. Table 4.7 lists the schools identified in the area, noting the distance to the site of each and the drive time in minutes.

Figure 4.8 Schools in Study Area

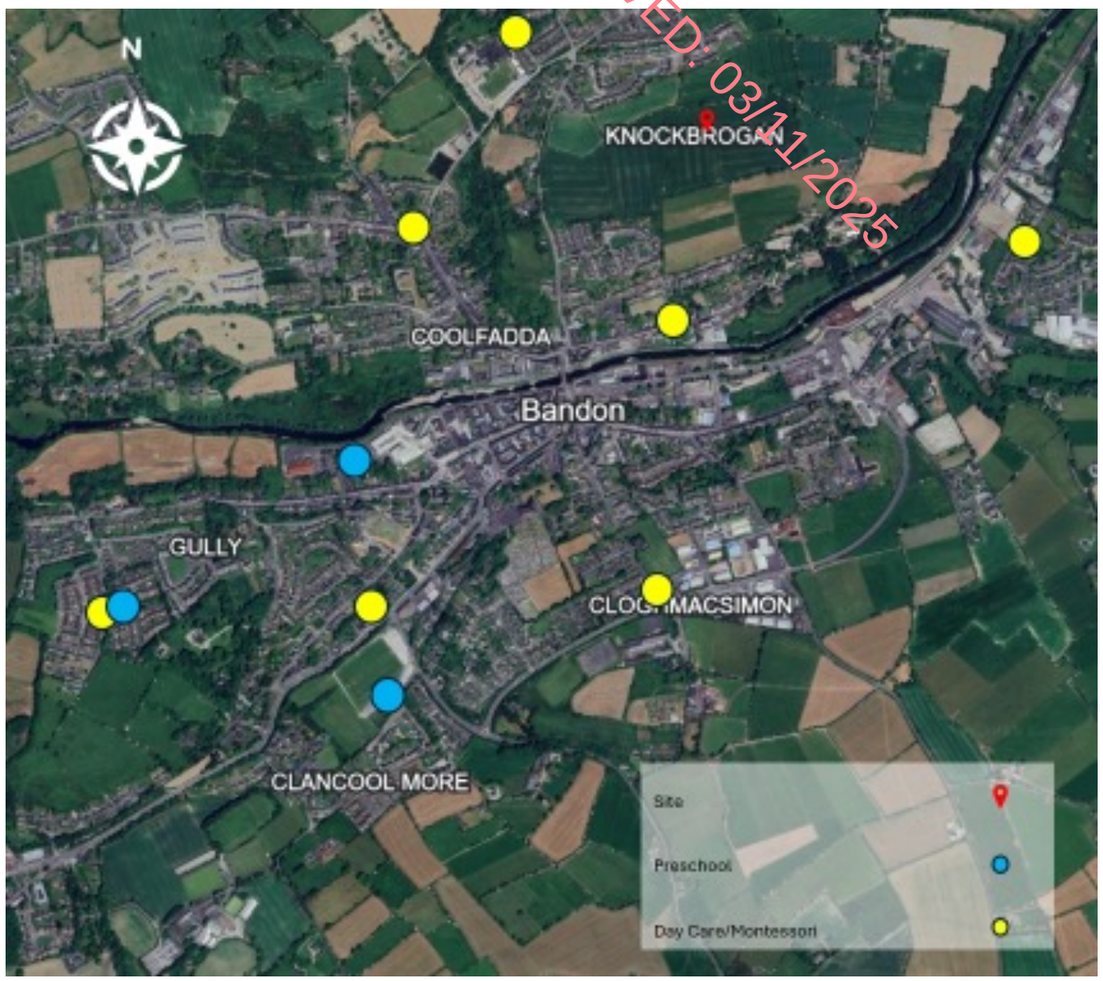

Fig 4.9 Preschool/ Childcare facilities in Study Area

In terms of childcare, the Childcare Demand Report (CDR), which accompanies this application (under separate cover), the CDR has identified a total of 10 no. childcare facilities in the town of Bandon. The location of these existing childcare providers is highlighted in Figure 4.9 below.

It is important to note that the applicant has received a decision to grant from Cork County Council to construct a childcare facility on lands to the west of the Phase 3 development site. This permission was granted under planning reference 24/5147 on August 26th, 2025. The crèche proposes a capacity of 85 child spaces. This ensures that the crèche will cater for the permitted phases of development, Phases 1 and 2, as well as the current proposal, Phase 3. Table 4.7 below lists the childcare providers identified in the area, their proximity to the site and drive time in minutes. Further details regarding these facilities are provided in the CDR.

Table 4 7 Schools and Childcare Providers in Study Area

No.	Educational Establishment	Distance from Site	Travel Time by Car (Mins)
Primary School			
1	Bandon Bridge National School	1.9 kilometres	3
2	Gaelscoil Dhroichead Na Banndan	1.1 kilometres	3
3	Presentation Convent Catholic Primary School	1.3 kilometres	5
4	Scoil Phádraig Naofa	1.2 kilometres	3
Post-Primary			
1	Coláiste na Toirbhirte	2.6 kilometres	5
2	St. Brogan's College	650 meters	2
3	Bandon Grammar School	2.8 kilometres	6
4	Hamilton High School	1.1 kilometres	3
Childcare Providers			
1	The Blossom Tree Pre-school	1.2 kilometres	4
2	Bandon Community Preschool	2.2 kilometres	5
3	Naionra Droichead na Banndan	1.2 kilometres	3
4	The Children's Lodge Montessori	1.4 kilometres	4
5	Thornfield Montessori	500 metres	2
6	Deerpark Community Childcare Services	2.4 kilometres	6
7	Bandon Montessori & Creche	2.2 kilometres	5
8	The Haven Montessori School	700 metres	2
9	Teach na nOg Montessori School	1 kilometre	2
10	The Ladybird Creche	1.2 kilometres	3

4.5.13.2 Health Services

There are 5 no. registered general practitioners, 4 no. medical centres, 5 no. dental practices and 7 no. pharmacies in the study area, offering a range of vital services for the residents of Bandon and those who will reside in the proposed development.

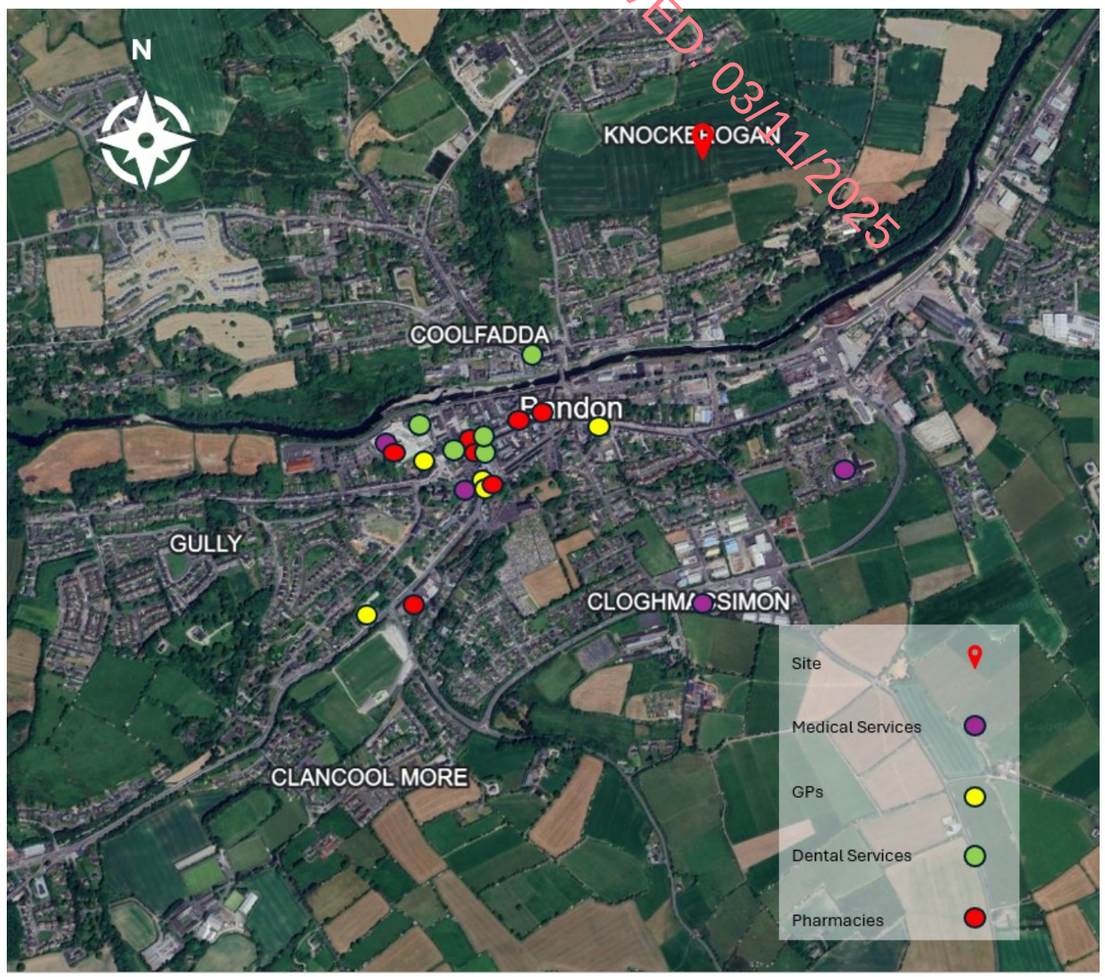

Figure 4.10 Healthcare Facilities in Study Area

Table 4 8 Healthcare Facilities in Study Area

No.	General Practitioners
1	The Weir Clinic
2	Ballymodan Family Practice
3	Southdoc Bandon
4	Bandon Medical Clinic
5	Milbrook Medical Facility
	Medical Centres
1	Bandon Community Hospital
2	Bandon Primary Care Centre
3	West Cork Chartered Physiotherapy Clinics & Bandon Physiotherapy & Sports Injury Clinic
4	MaxPhysio - Chartered Physiotherapist and Pilates Studio Physio Bandon
	Dental Services
1	Bandon Dental Care
2	Bandon Dental Clinic
3	Mark Twomey Dental Practice
4	Browne Orthodontics
5	O' Dwyer Orthodontics
	Pharmacy
1	O'Sullivans Late Night Pharmacy Bandon
2	Chemco Pharmacy Bandon
3	Haven Pharmacy Riverview Bandon
4	Horgan's Pharmacy
5	Deasy's Pharmacy
6	Brookes Pharmacy
7	Boots

4.5.13.3 Community and Amenity Services

There are a number of sporting and recreational facilities in Bandon which are available. These include local sporting organisations such as Bandon RFC and Bandon GAA, as well as Bandon playground and skatepark. These facilities cater for a variety of age groups, from young to old.

Figure 4.11 Sports and Recreational Facilities in Study Area

Table 4 9 Sports and Recreational Facilities in Study Area

No.	Facility
1	Bandon Gaa Club
2	Bandon Golf Club
3	Bandon Association Football Club
4	Bandon Rugby Football Club
5	Bandon Hockey Club
6	Prima Fitness Club Limited
7	Muay Thai Bandon
8	Bandon Taekwon-Do Academy
9	Bfit Health and Fitness
10	Bandon Strength & Condition
11	iFit West Cork
12	CM Fitness & Personal Training
13	Bounce Tennis Academy
14	Studio Galera
15	Studio Galera-Brazilian Jiu-Jitsu&Gymnastics
16	Overdose Fitness Limited
17	Bandon Leisure Centre

4.5.13.4 Supermarkets and Smaller shops

There are a number of retail and convenience stores located in Bandon which will be available to future residents of the site. These range from large retail supermarkets to small local convenience stores and service stations providing people with a wide range of goods and services.

Figure 4.12 Supermarkets and Convenience Stores in Study Area

Table 4-10 Supermarkets and Convenience Stores in Study Area

	Supermarkets
1	Lidl
2	Aldi
3	Supervalu
4	Centra
5	Kevin O'Leary Centra
	Corner Shops/ Miscellaneous Food Stores
1	The Corner Store
2	Dealz
3	Super Netto
4	An Tobairín Health Food Shop
5	Spar Express
6	Denis O'Donovan
7	Delikatesy Krowka

4.5.13.5 Service Stations and Mechanics

There are many car service establishments to avail of in Bandon town, which provides the people with reliable services that will make their commutes easier and reliable.

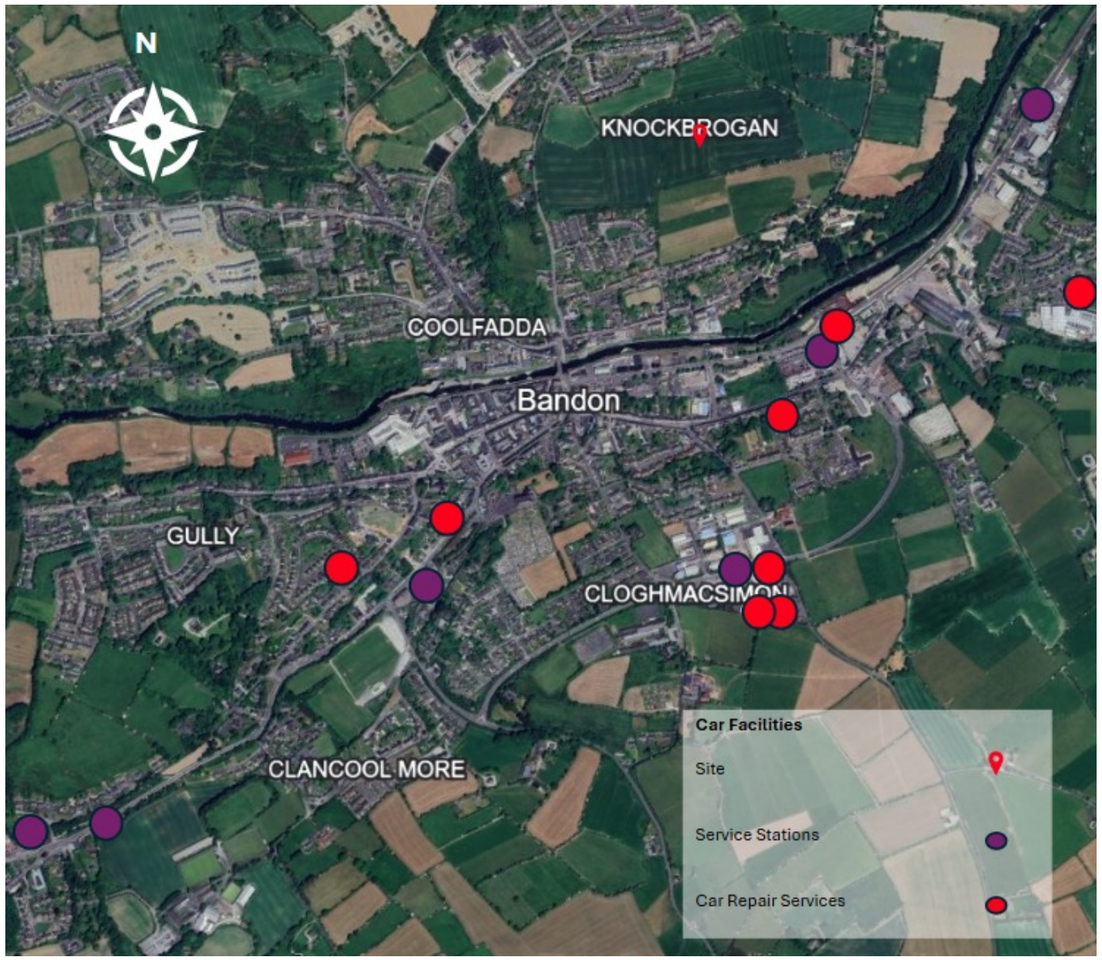

Figure 4.13 Car Service Facilities in Study Area

Table 4-11 Car Service Facilities in Study Area

	Service Stations
1	O'Brien's Bandon Road Junction
2	Roundhill Service Station
3	Top Oil Bandon Service Station
4	Texaco Bandon
5	Corrib Oil – Texaco Bandon
6	Circle K Express Cahalane
	Car Repair Services
1	Dr. Auto
2	Service world Bandon
3	RS Motors Repair & Service
4	West Cork Auto Factors
5	D&M Crash Repairs
6	Tim Collins Crash Repair Centre
7	V&P Auto Car Services
8	Robert Macklin Auto

4.6 The 'Do Nothing' Scenario

4.6.1 Actual Do Nothing

If the development was not to proceed there would be no immediate impact on the existing population, economic activity, or community services and facilities in the area.

However, if the development does not occur there will be a shortfall in housing supply in this area of Cork which may negatively impact the ability of Cork County to supply homes to meet the population projections in the coming years.

The site is zoned for residential development and the provision of housing on the subject site will support the core strategy and objectives of the Cork County Development Plan 2022. If the development does not occur the zoning and objectives of the Development Plan will not be realised in the short term.

In terms of Population and Human Health, a 'do nothing' scenario (i.e. not developing the proposed development site) would represent a lost opportunity to develop these lands for residential use on a zoned site. As such, the proposed development site would remain underutilised, and it would not contribute to increasing the provision of housing in this area. The impacts on land use are therefore envisaged to be negative to neutral for the 'do-nothing' scenario.

4.7 Difficulties Encountered

There were no difficulties encountered in preparing this chapter.

4.8 Consultation

Consultations with both the local authority and statutory bodies were also used to ensure that environmental issues, including socio-economic, recreational and amenity issues relating to the proposed development were addressed. Further information on the consultation process and responses received is provided in Appendix 1.1.

4.9 Impact Assessment

For the purpose of this chapter, the primary sensitive receptors are local residents, and the community facilities and services identified in the area. This section describes the environmental effects that are likely to arise during the construction and operation of the proposed development.

Section 4.10 sets out the mitigation measures required to alleviate identified effects. Potential Impacts are considered under the following headings in line with the EPA Guidelines:

- Land Use Patterns
- Demographics and Settlement
- Pattern Employment and Economics
- Human Health
- Residential Amenity

Local Amenity Specific effects with respect to matters such as air quality, noise, traffic, visual impact etc. are dealt with in the respective assessments in this EIAR.

4.9.1 Construction Phase

The potential impacts of the proposal during the construction phase of the development are outlined below. The construction phase is expected to last approximately 48 months, as per the Construction Management Plan (CEMP) submitted with the application, under separate cover, by Malone O'Regan Consulting Engineers

4.9.1.1 Population

The construction phase is not likely to result in any changes to the settlement pattern as described in Section 4.5.6.

The potential impacts during the construction phase relate to short term impacts to quality of life, including visual impact/amenity, noise, air quality, and transport. Where relevant, these impacts have been considered in the relevant chapters of the EIAR and will be minimised or mitigated where appropriate. It is unlikely that these impacts will be of a scale to either encourage people to move from the area or discourage people from moving to the area.

4.9.1.2 Employment & Economics

The construction phase is anticipated to result in a temporary boost to the local economy as workers employed at the site can be expected to make use of local retail facilities and other services. If the application is successful, construction works will continue until the development is completed and there will be positive economic externalities to industries that are complimentary to the construction sector.

It is anticipated that the construction phase will result in likely positive short term moderate effects locally and within the wider area.

4.9.1.3 Health

As with any construction site, there will be potential risk to health and safety in terms of injury or death of construction personnel on-site due to the usage of large, mobile machinery as well as heavy equipment and materials.

Human health may be impacted on in a variety of different ways and by several environmental receptors including water, biodiversity, climate, flooding, air, and major accidents etc. exposure to contaminants or pollutants can have serious implications for human health. Potential impacts on population and human health include inadequate water and wastewater infrastructure, contamination of soils, excessive noise, flooding due to non-control of surface water, poor air quality in areas where there are large volumes of traffic and the health impacts associated with the storage of hazardous materials during the construction stage. These issues are addressed within the relevant discipline of the EIAR.

4.9.1.4 Residential Amenity

The anticipated likely significant effects in the absence of mitigation on residential amenities relate to disruption due to increased construction traffic movements on the local road network, noise, dust and visual impacts arising from plants (e.g. cranes) necessary to deliver the development.

In the absence of mitigation, the construction phase may result in short term negative impacts on the local population.

4.9.2 Operational Phase

4.9.2.1 Population

The proposed development will provide 212 no. residential units and all associated site works. The 212 no. units will provide 14 no 4-bed units, 130 no. 3-bed units and 68 2-bed units. As the proposal provides 212 residential units when applying the national average household size of 2.74 persons, the proposed development is expected to generate a population of approximately 589 people.

According to the 2022 Census, 10.4% of the population within the primary school study area is of primary school-going age, while 6.8% is post-primary school-going age. Based on these proportions, the proposed development is expected to yield approximately 61 primary school-aged children and 40 post-primary school-aged children.

In terms of childcare, it is envisioned that the permitted crèche will serve the entirety of the Knockbrogan Masterplan area. It is estimated that the masterplan area will provide a total of 344 no. units, which include all three phases.

Based on the State average household size of 2.74, the 344 no. units are likely to generate a population of 943 persons. Based on the assumption that 6.7% of the population of the combined small areas are of pre-school age (i.e. 0-4 years), the number of pre-school children likely to be generated by the completed development is approximately 63.

4.9.2.2 Employment & Economy

There will be an economic benefit to local businesses during the operational phase. Residents will use local facilities and services, and it is anticipated that the additional population will result in increased business for the wider area, and will have a positive, slight, long-term impact on the services including dentist clinics, pharmacies, banks, and various retail outlets in the town of Bandon.

4.9.2.3 Health

The proposed development will not result in any significant negative impacts to the health and wellbeing of the existing population. In particular, the design of the scheme ensures that future residents of the local environment will benefit from the development, in the form of open spaces and amenity areas.

The provision of these amenity facilities with the proposed development will be of benefit to future residents and existing residents in local environs. The operational phase of the proposed development, in terms of creation and amenity facilities will, therefore, have a permanent significant positive impact on Human Health.

4.9.2.4 Residential Amenity

During the operational phase, the high-quality living environment of the proposed scheme will result in positive impacts on amenity for future residents. Achieving a high-quality living environment through an integrated and balanced design approach will have a locally significant, positive and permanent effect on residential amenity.

Future residents will enjoy a combination of private and public amenity spaces, which allow for privacy and interaction and inclusion, helping to foster a sense of community within the neighbourhood. Open spaces will be overlooked ensuring sufficient passive surveillance. This is determined to have a positive effect on residential amenity.

The proposed development at operational stage will result in traffic movements that are naturally associated with residential neighbourhoods.

4.9.2.5 Local Amenity Impacts

The proposed development provides high quality open space. The public open space is conveniently located in different character areas of the development to ensure that all residents find these spaces accessible.

Section 4.5.13 of this Chapter demonstrates that there is a good variety of infrastructure within the catchment area. The proposed development site incorporates dedicated play areas within public open space areas as detailed in the Landscape Plan provided under separate cover. The impact is deemed to have a locally positive, slight, and permanent effect.

As outlined previously, there are a number of healthcare facilities within the Study Area, including GP services, pharmacies and dentists. These existing facilities and services may be utilised by future residents and continue to support the local economy.

As discussed in further detail above, the School Demand Assessment, submitted within this application demonstrates there are a number of both primary and post-primary schools within the town of Bandon.

The School Demand Report notes that enrolment projection figures provided by the Department of Education show that nationally both primary and post-primary enrolments are set to reduce considerably. Based on these projections primary level enrolment figures have reached their peaks and are currently decreasing. Similarly, post primary enrolment levels have reached their peak this year (2024/2025) and are projected to start decreasing from next year.

It is projected that primary school enrolments will not begin to increase again until after 2036, and that post primary enrolments will not begin to increase again until after 2038.

The proposed development is therefore expected to provide additional primary and post primary school aged children within the catchment area, at a time when enrolment figures are likely to be at their lowest.

Accordingly, the impact is deemed locally neutral with a significance that, at worst, would have a moderate effect. In relation to the Childcare Demand Report, submitted with the application, the applicant has been awarded a grant of permission to construct a creche on adjacent lands. This creche will be sufficiently sized to cater for phase 1-3 of development.

4.9.3 Cumulative Effects

Cumulative impacts can result from individually insignificant but collectively significant actions taking place over a period or concentrated in a location. Cumulative impacts can occur where a proposed development results in impacts that, when considered in combination with impacts of other proposed or permitted plans and projects may result in a cumulative impact.

The list of projects taken into account with regards to cumulative impact have been outlined in Chapter 1. During the operational phase, the cumulative impact of these applications is expected to be slight, long-term impact and positive by providing additional homes, childcare facilities, community spaces, and public open spaces for the local population.

4.10 Mitigation Measures

4.10.1 Incorporated Design Mitigation

The proposed development complies with the Building Regulations which provide for the safety and welfare of people in and about buildings. The Building Regulations cover matters such as structure, fire safety, sound,

ventilation, conservation of fuel and energy, and access, all of which safeguard users of the buildings and health occupants.

An assessment of the potential effects of the construction and operation of the proposed scheme in relation to climate forms part of Chapter 14 Climate of this EIAR.

The integration of energy efficient measures into the design will provide for healthier living standards for future occupants, less dependence on fossil fuels and associated improved air quality. The availability of on the doorstep public open space, amenity spaces, and a highly accessible layout across the scheme will encourage sustainable modes of outdoor access for a wide age group.

4.10.2 Construction Phase Mitigation

A Construction and Environmental Management Plan (CEMP) and Resource Waste management Plan (RWMP) for the proposed development are included in the planning application documentation. The CEMP and RWMP will be further updated by the contractor, agreed with Cork County Council prior to commencement, and implemented by the selected contractor after any consent is received.

All construction personnel will be required to understand and implement the requirements of the CEMP and RWMP and shall be required to comply with all legal requirements and best practice guidance for construction sites.

The CEMP provides for a construction phase management structure to ensure that environmental protection and mitigation measures are put in place. The CEMP requires that these measures will be checked, maintained to ensure adequate environmental protection. The CEMP also requires that records will be kept and reviewed as required to by the project team and that the records will be available on site for review by the planning authority.

All construction personnel will attend induction and training classes as required to ensure that CEMP is effectively implemented. The CEMP will comply with all appropriate legal and best practice guidelines for construction sites.

A full summary of construction phase mitigation measures is presented in Chapter 18 of this EIAR.

4.10.3 Operational Phase Mitigation

The proposed development is a high-quality design that incorporates generously sized units with integrated energy efficiency measures and an abundance of open space. The impact assessment section did not identify likely significant environmental impacts on population and human health arising from the operational phase of the proposed development. Accordingly, mitigation measures are not proposed.

4.11 Residual Impact Assessment

This section assesses potential significant environmental impacts which remain following development.

The land will have an urban residential character, rather than that of a greenfield site. The residual effect of the proposed development for population and human health is determined to be significantly positive having regard to the delivery of much needed new homes in a location that has the carrying capacity in terms of both services and amenities to support the population generated by the scheme. The proposed mitigation measures will avoid, prevent, and reduce impacts on the human environment during the construction and operational phases of the proposed development, where no significant adverse residual impacts have been identified. The proposed development, in combination with the recently permitted development in the area will have a cumulative positive impact on the area.

4.12 Interactions

Interactions are considered in Chapter 17 of this EIAR.

4.12.1 Material Assets: Traffic and Transport

There is potential risk from traffic related incidents which may arise, including an increase in pollutants which may affect air quality. In the current assessment, traffic derived pollutants which may affect air quality and thus population and human health have not been deemed as significant.

4.12.2 Land and Soils

There is a potential risk of dust generated from excavation and stockpiling of soil during the construction phase of the proposed development posing a human health risk in the absence of standard avoidance and mitigation measures which will be implemented to be protective of human health. Appropriate industry standards and health and safety legislative requirements will be implemented during the construction phase of the proposed development that will be protective of site workers.

4.12.3 Material Assets: Waste

The improper removal, handling and storage of hazardous waste could negatively impact on the health of construction workers.

4.12.4 Hydrology and Hydrogeology

Pollution events can impact the water quality and thus impact the human health of the surrounding population. Appropriate surface water control measures will be implemented as part of the Proposed Development.

Appropriate industry standard and health and safety legislative requirements will be implemented during the demolition and construction phase of the Proposed Development that will be protective of site workers. The Proposed Development will increase the amount of people in proximity to flood-prone areas. This increased population density could heighten the potential for flood-related health impacts, particularly during construction.

Residual risk will be mitigated by monitoring weather forecasts to optimize construction planning.

4.12.5 Noise and Vibration

The Noise and Vibration chapter has been prepared in consideration of and in conjunction with the relevant elements of this chapter. For example, noise and vibration impacts associated with the proposed development have been fully considered within this Chapter of the EIAR . Mitigation and monitoring measures will be incorporated to further reduce the potential for noise generation from the proposed development.

4.12.6 Air Quality

Interactions between air quality and population and human health have been considered as the proposed development has the potential to cause health issues as a result of impacts on air quality from dust nuisances and potential traffic derived pollutants. There is also potential for impact on human health from a deterioration in air quality associated with emissions from vehicles. However, the mitigation measures included in the proposed development will ensure that all impacts are compliant with ambient air quality standards and human health will not be affected. Furthermore, traffic-related pollutants have been assessed and determined as having an overall insignificant impact, therefore air quality impacts from the proposed development are not expected to have a significant impact on population and human health. The potential significant effects on population and human health arising from these interactions have been considered within the relevant discipline and mitigation measures outlined where required. With mitigation measures in place, no significant permanent residual negative effects will occur

4.12.7 Climate

Interactions between climate and population and human health have been considered as the proposed development has the potential to cause health issues as a result of impacts on climate. Energy efficient design within the proposed development may give rise to reduced electricity consumption by future residents, potentially decreasing dependence on fossil fuels for energy generation, resulting in significant CO2 savings. The potential significant effects on population and human health arising from these interactions have been considered within the relevant discipline and mitigation measures outlined where required.

4.12.8 Landscape and Visual

Construction processes and plant such as cranes used during the construction phase may give rise to visual impacts. Appropriate mitigation measures are outlined in the Landscape and Visual Impact chapter, as deemed necessary. During the operational phase, the landscape plan will impact the quality of the private, communal and public open spaces, which could impact people's health and well-being.

4.13 Risk of Major Accidents or Disasters

The potential of major risks and disasters as a result of the proposed development has been assessed and the findings are presented in Chapter 16 of this EIAR. No risk of major accidents and disasters has been identified.

4.14 Worst Case Scenario

In the event that all mitigation measures fail to hinder potential negative impacts, the possibility of an increase of traffic within the surrounding roads and junctions of the site can occur. Furthermore, without these mitigation measures in place, noise caused by the construction of the proposed scheme may increase and can cause a disturbance to any residential dwellings in close proximity to the site. Moreover, when mitigation measures are not considered, there is the possibility of the impact on dust that can be carried throughout the site. Dust can expand beyond the site and create adverse effects on the neighbouring environment, including the neighbouring residential dwellings. However, it is imperative that mitigation measures are implemented to ensure that the worst-case scenario does not occur. When considering the mitigation measures that will be in place, the event of a worst-case scenario is deemed to be unlikely.

4.15 Monitoring

Measures to avoid negative impacts on Population and Human Health are largely integrated into the design and layout of the proposed development. Compliance with the design and layout will be a condition of any permitted development.

No specific monitoring is proposed in relation to this section. Monitoring of standard construction mitigation measures as outlined in this EIAR will be undertaken by the appointed contractor.

4.16 Conclusion

There are no significant adverse impacts with respect to socio-economic factors the population, or the amenity value potential of the area. Issues which may cause risks and hazards during the construction and operational phase of the development are given due consideration. All necessary mitigation measures will be put in place to ensure the health and safety of all site personnel and neighbouring properties. All other environmental aspects relating to the human environment which could have an adverse impact on the local population such as soils, geology and hydrology, water and ecology have been addressed in the relevant chapters of this EIAR.

4.17 References and Sources

- Revised National Planning Framework, Ireland 2040
- Southern Regional Spatial and Economic Strategy 2019-2031;
- Cork County Development Plan 2022-2028;
- Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning & Local Government, 2018);
- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017);
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022);
- School Demand Assessment Report, MHP 2025;
- Childcare Demand Report, MHP 2025;
- Construction Environmental Management Plan (MORCE 2025)
- Central Statistics Office (CSO) website www.cso.ie;
- Department of Education (DE) website https://www.gov.ie/en/organisation/department-of-education/;
- Pobal website https://maps.pobal.ie/; and
- Health & Safety Authority https://hsa.ie/eng/

CHAPTER FIVE

LANDSCAPE AND VISUAL

CHAPTER 5

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CHAPTER 5 | LANDSCAPE AND VISUAL

5.1 Introduction

This chapter of the EIAR was prepared to assess the potential significant effects of the proposed development on the landscape character and visual amenity of the receiving environment. It should be read in conjunction with the book of Verified Photomontages provided under separate cover.

5.2 Expertise & Qualifications

This chapter of the EIAR has been prepared by Richard Butler MILI MIPI of Model Works Ltd. Richard has degrees in landscape architecture (BLArchHons) and town planning (MSc) and is a member of the Irish Landscape Institute and the Irish Planning Institute. He has over 25 years' experience in development and environmental planning, specialising in LVIA. In the last number of years, he has prepared LVIA EIAR chapters for the following projects among others:

- Pembroke Quarter (Irish Glass Bottle and Fabrizia sites) Phases 1, 1B, 2, A, Poolbeg West Strategic Development Zone, Dublin;
- St Vincent's Hospital and Residential Development, Fairview, Dublin;
- Parkside 4, 5B and 6 SHDs, Clongriffin-Belmayne;
- Guinness Quarter, James's Street, the Liberties, Dublin;
- Project Montrose (former RTÉ lands) LRD, Donnybrook, Dublin;
- Sandford Road LRD, Dublin;
- Emmet Road SHD, Inchicore, Dublin;
- Dublin Arch (Connolly Quarter).

5.3 Proposed Development

Please refer to Chapter 2 – Project Description for the full development description. In summary, the subject application is for a large-scale Residential Development (LRD) comprising of the construction of 212no. residential units and all ancillary development works including footpaths, car and bicycle parking, drainage, bicycle and bin stores, lighting and landscaping/amenity areas at Knockbrogan, Bandon, Co. Cork. Access will be provided via the existing access road onto the Cork Road permitted under reference 21/4059.

5.3.1 Aspects Relevant to this Assessment

5.3.1.1 Development Typology and Character

The proposed development is comprised of two storey terraced and semi-detached houses of render, with stone detailing, and pitched slate roofs.

The Architectural Design Statement (Brian O'Kennedy & Associates Engineers and Architects, September 2025) states that the inclusion of apartment buildings was considered (as a means to increase density). One of the reasons that the apartment typology was discarded was the elevated nature of the site. Buildings taller than two storeys would be obtrusive on the ridgeline. This decision on typology was important from the perspective of the scheme's potential landscape and visual impacts.

The houses are laid out around local pockets of open space and home zones, in a framework of green links/ corridors incorporating the site's retained boundary hedgerows. The layout was determined by (a) the requirement to retain the existing hedgerows and trees where feasible, (b) the site topography and (c) the requirement for the development to seamlessly integrate with the adjacent development to the west (Ref. 21/4059 and 24/5216, currently under construction, the first phase of development in the Knockbrogan area).

In typology and character, the proposal thus responds to and reflects the built and natural elements and characteristics of the landscape context.

Figure 5-1 The layout of the proposed development, showing its interface with the permitted developments to the west and its typological similarities to the existing estates in the area

5.3.1.2 Retention of Existing Vegetation

The proposed development retains the hedgerows, hedgerow trees and tree groups along the northern, eastern and southern boundaries of the site, as well as sections of the internal hedgerows. This retained vegetation is incorporated into a framework of green links/corridors that connect the scheme to the local green infrastructure network (the field boundary hedgerows). The Landscape and Green Infrastructure Report (Simon Ronan Landscape Architects, August 2025) states that it is intended that the proposed mix of pollinator friendly, native planting combined with the retained vegetation would result in a net biodiversity gain on the site.

Figure 5-2 Proposed landscape masterplan

The retention and supplementation of the boundary vegetation is also intended to assist with the visual integration of the scheme into the landscape, by softening the built frontage and at least partially screening the buildings and retaining walls.

Figure 5-3 Photograph and photomontage, showing the softening and screening effect of the retained boundary vegetation

5.3.1.3 Alignment of Proposed Buildings in Relation to the Knockbrogan Ridgeline

The proposed layout includes terraces and rows of houses aligned both parallel and perpendicular to the contours of Knockbrogan. This was dictated to a large extent by the shape and topography of the site, as well as sunlight access considerations. However, it also has the effect of avoiding 'walls' of built form on the hillside or ridgeline, achieving permeability of the collective built form, and visual interest.

Figure 5-4 Photomontage showing the varied alignment of the houses (as proposed) on the Knockbrogan ridgeline, to achieve permeability and visual interest

5.4 Methodology

The LVIA was carried out with reference to:

- *Guidelines for Landscape and Visual Impact Assessment*, 3rd edition, 2013 (GLVIA), published by the Landscape Institute;
- *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*, 2022, published by the EPA;
- *Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment*, 2018, published by the Department of Housing, Planning anwd Local Government.

The EPA guidelines 2022 provide a general methodology and impact ratings for all EIA topics. The GLVIA provides specific guidelines for landscape and visual impact assessment. Therefore, a combination of the EPA guidelines and the GLVIA has informed the methodology for this assessment. The GLVIA requires that effects on views and visual amenity be assessed separately from the effects on landscape, although the two topics are inherently linked.

- 'Landscape' results from the interplay between the physical, natural and cultural components of our surroundings. Different combinations and spatial distribution of these elements create variations in landscape character. Landscape impact assessment identifies the changes to this character which would result from the proposed development, and assesses the significance of those effects on the landscape as a resource.
- Visual impact assessment is concerned with changes that arise in the composition of available views, the response of people to these changes and the overall effects on the area's visual amenity.

5.4.1 Assessment of Landscape Effects

Assessment of potential landscape effects involves (a) classifying the sensitivity of the landscape resource, and (b) describing and classifying the magnitude of landscape change which would result from the development. These factors are then combined to arrive at a classification of significance of the effects.

5.4.1.1 Landscape Sensitivity

The sensitivity of the landscape is a function of its character, which may be determined by its land use pattern, field pattern or urban grain, building typologies and architecture, cultural and natural heritage elements (including topography, vegetation and drainage features), and the quality of the public realm. These factors determine the value that is placed on the landscape. The policy pertaining to the area (e.g. the land use zoning), and any related trend of change, are taken into account. The nature and scale of the proposed development are also considered (a particular landscape can have varying sensitivity to different development types). Five categories are used to classify sensitivity, as set out in Table 5-1.

Table 5- 1 Categories of Landscape Sensitivity

Sensitivity	Description
Very High	Areas where the landscape exhibits very strong, positive character with valued elements, features and characteristics that combine to give an experience of unity, richness and harmony. The landscape character is such that its capacity to accommodate change is very low. These attributes are recognised in policy or designations as being of national or international value and the principle management objective for the area is protection of the existing character from change.
High	Areas where the landscape exhibits strong, positive character with valued elements, features and characteristics. The landscape character is such that it has limited/low capacity to accommodate change. These attributes are recognised in policy or designations as being of national, regional or county value and the principle management objective for the area is the conservation of existing character.
Medium	Areas where the landscape has certain valued elements, features or characteristics but where the character is mixed or not particularly strong, or has evidence of alteration, degradation or erosion of elements and characteristics. The landscape character is such that there is some capacity for change. These areas may be recognised in policy at local or county level and the principle management objective may be to consolidate landscape character or facilitate appropriate, necessary change.
Low	Areas where the landscape has few valued elements, features or characteristics and the character is weak. The character is such that it has capacity for change; where development would make no significant change or would make a positive change. Such landscapes are generally unrecognised in policy and the principle management objective may be to facilitate change through development, repair, restoration or enhancement.
Negligible	Areas where the landscape exhibits negative character, with no valued elements, features or characteristics. The character is such that its capacity to accommodate change is high; where development would make no significant change or would make a positive change. Such landscapes include derelict industrial lands, as well as sites or areas that are designated for a particular type of development. The principle management objective for the area is to facilitate change in the landscape through development, repair or restoration.

5.4.1.2 Magnitude of Landscape Change

Magnitude of change is a factor of the scale, extent and degree of change imposed on the landscape by a development, with reference to its key elements, features and characteristics and the affected surrounding character areas (collectively termed 'landscape receptors'). Five categories are used to classify magnitude of change, as set out in Table 5-2.

5.4.1.2 Magnitude of Landscape Change

Magnitude of change is a factor of the scale, extent and degree of change imposed on the landscape by a development, with reference to its key elements, features and characteristics and the affected surrounding character areas (collectively termed 'landscape receptors'). Five categories are used to classify magnitude of change, as set out in Table 5-2.

Table 5- 2 Categories of Magnitude of Landscape Change

Sensitivity	Description
Very High	Change that is large in extent, resulting in the loss of or major alteration to key elements, features or characteristics of the landscape, and/or introduction of large elements considered totally uncharacteristic in the context. Such development results in fundamental change in the character of the landscape.
High	Change that is moderate to large in extent, resulting in major alteration to key elements, features or characteristics of the landscape, and/or introduction of large elements considered uncharacteristic in the context. Such development results in change to the character of the landscape.
Medium	Change that is moderate in extent, resulting in partial loss or alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that may be prominent but not necessarily substantially uncharacteristic in the context. Such development results in change to the character of the landscape.
Low	Change that is moderate or limited in scale, resulting in minor alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that are not uncharacteristic in the context. Such development results in minor change to the character of the landscape.
Negligible	Change that is limited in scale, resulting in no alteration to key elements features or characteristics of the landscape, and/or introduction of elements that are characteristic of the context. Such development results in no change to the landscape character.

5.4.1.3 Significance of Effects

To classify the significance of effects (for both landscape and visual impacts) the magnitude of change is measured against the sensitivity of the receiving environment/receptor using the guide in Table 5-3 below.

The matrix (Table 5-3) is derived from the EPA's Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, 2022, specifically Figure 3.4 of the Guidelines (Figure 5-5 below).

Table 5 3 Guide to Classification of Significance of Landscape and Visual Effects

Magnitude of Landscape/Visual Change	Sensitivity of the Landscape/View: Very High	High	Medium	Low	Negligible
Very High	Profound	Profound to Very Significant	Very Significant to Significant	Moderate	Slight
High	Profound to Very Significant	Very Significant	Significant	Moderate to Slight	Slight to Not Significant
Medium	Very Significant to Significant	Significant	Moderate	Slight	Not Significant
Low	Moderate	Moderate to Slight	Slight	Not significant	Imperceptible
Negligible	Slight	Slight to Not Significant	Not significant	Imperceptible	Imperceptible

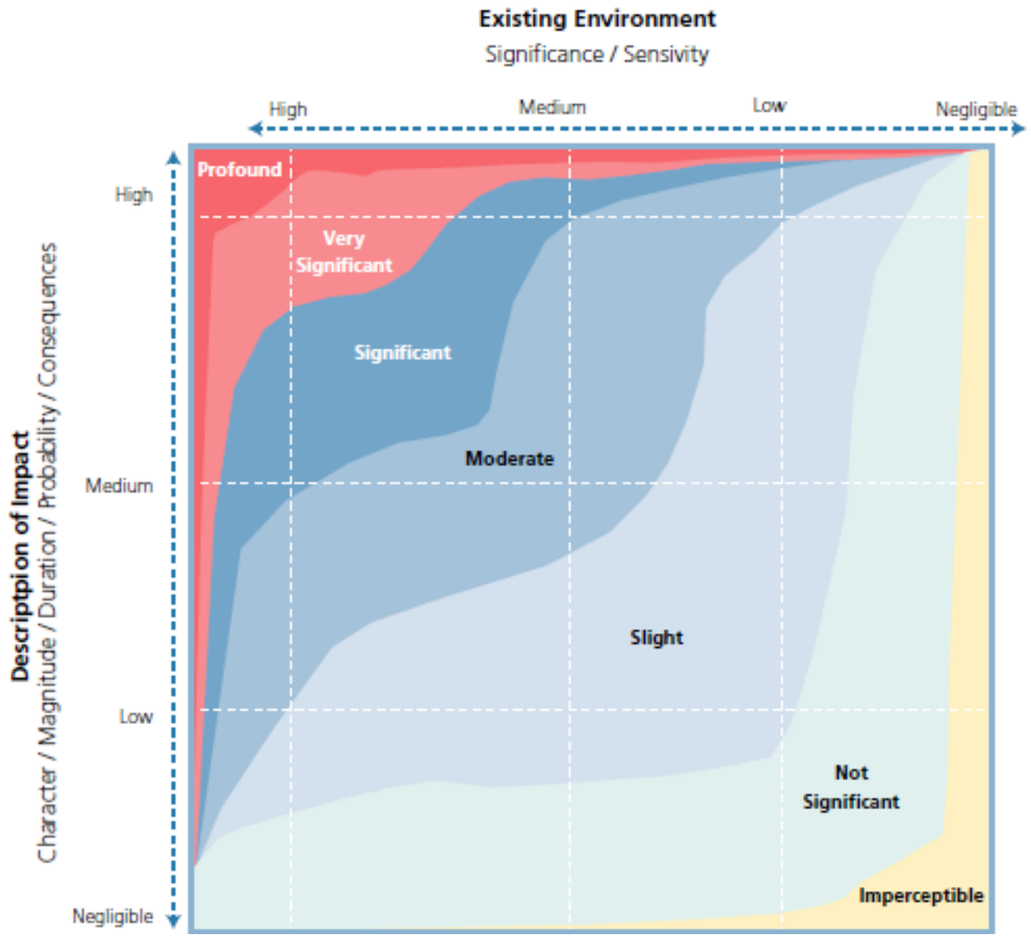

Figure 5-5 'Chart showing typical classifications of the significance of impacts' (Source: Figure 3.4 of the EPA's Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, 2022)

The matrix (Table 5-3) and the EPA's chart (Figure 5-5) are only a guide to the classification of impact significance. The assessor also uses professional judgement informed by their expertise, experience and common sense to arrive at a classification that is reasonable and justifiable. In the EPA Guidelines 2022 the chart is accompanied by a footnote that states: *"The depiction of significance classifications is indicative and should not be relied on as being definitive. It is provided for general guidance purposes."* (EPA Guidelines 2022, Section 3, page 53)

The matrix and chart are therefore used as a starting point for the impact significance classification – with the assessor using their judgement to arrive at a classification that is reasonable and sensible. For example, according to the EPA chart (above) a change of high magnitude affecting a receptor of medium sensitivity may be classified as either 'significant' or 'moderate'. That judgement must be made by the assessor.

The impact significance classifications are taken from the EPA Guidelines 2022, which defines the classifications as follows (Table 5-4):

Table 5- 4 Impact significance Classifications

Significance	Description
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.

5.4.2 Assessment of Visual Effects

Assessment of visual effects involves identifying a number of representative viewpoints in the site's receiving environment, and for each of these classifying: (a) the viewpoint sensitivity, and (b) the magnitude of change that would result from the proposed development (informed by verified photomontages). These factors are combined to arrive at a classification of significance of the effects on each viewpoint.

5.4.2.1 Viewpoint Sensitivity

Viewpoint sensitivity is a function of two main considerations:

- Susceptibility of the visual receptor to change. This depends on the occupation or activity of the people experiencing the view, and the extent to which their attention is focused on the views or visual amenity they experience at that location. Visual receptors most susceptible to change include residents at home, people engaged in outdoor recreation focused on the landscape (e.g. trail users), and visitors to heritage attractions and places of congregation where the setting contributes to the experience. Visual receptors less sensitive to change include travellers on road, rail and other transport routes (unless on recognised scenic routes), people engaged in outdoor recreation where the surrounding landscape does not influence the experience, and people in their place of work or shopping.
- Value attached to the view. This depends to a large extent on the subjective opinion of the visual receptor but also on factors such as policy and designations (e.g. scenic routes, protected views), or the view or setting being associated with a heritage asset, visitor attraction or having some other cultural status (e.g. appearing in arts).

Five categories are used to classify a viewpoint's sensitivity, as set out in Table 5-5.

Table 5- 5 Categories of Viewpoint/Visual Sensitivity

Sensitivity	Description
Very High	Iconic viewpoints (views towards or from a landscape feature or area) that are recognised in policy or otherwise designated as being of national value. The composition, character and quality of the view are such that its capacity for change is very low. The principle management objective for the view is its protection from change.
High	Viewpoints that are recognised in policy or otherwise designated as being of value, or viewpoints that are highly valued by people that experience them regularly (e.g. views from houses or outdoor recreation amenities focused on the landscape). The composition, character and quality of the view may be such that its capacity to accommodate change may or may not be low. The principle management objective for the view is its protection from change that reduces visual amenity.
Medium	Views that may not have features or characteristics that are of particular value, but have no major detracting elements, and which thus provide some visual amenity. These views may have capacity for appropriate change and the principle management objective is to facilitate change to the composition that does not detract from visual amenity, or which enhances it.
Low	Views that have no valued feature or characteristic, and where the composition and character are such that there is capacity for change. This category includes views experienced by people involved in activities with no particular focus on the landscape. For such views the principle management objective is to facilitate change that does not detract from visual amenity or enhances it.
Negligible	Views that have no valued feature or characteristic, or in which the composition may be unsightly (e.g. in derelict landscapes). For such views the principle management objective is to facilitate change that repairs, restores or enhances visual amenity.

5.4.2.2 Magnitude of Visual Change

Classification of the magnitude of change takes into account the size or scale of the intrusion of development into the view (relative to the other elements and features in the composition, i.e. its relative visual dominance), the degree to which it contrasts with, or integrates with, the other elements and the general character of the view, and the way in which the change would be experienced (e.g. in full view, partial or peripheral view, or in glimpses). Five categories are used to classify the magnitude of change to a view, as set out in Table 5-6.

Table 5- 6 Categories of Magnitude of Visual Change

Sensitivity	Description
Very High	Full or extensive intrusion of the development in the view, or partial intrusion that obstructs valued features or characteristics, or introduction of elements that are completely out of character in the context, to the extent that the development becomes dominant in the composition and defines the character of the view and the visual amenity.
High	Extensive intrusion of the development in the view, or partial intrusion that obstructs valued features, or introduction of elements that may be considered uncharacteristic in the context, to the extent that the development becomes co-dominant with other elements in the composition and affects the character of the view and the visual amenity.
Medium	Partial intrusion of the development in the view, or introduction of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity.
Low	Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity.
Negligible	Barely discernible intrusion of the development into the view, or introduction of elements that are characteristic in the context, resulting in slight change to the composition of the view and no change in visual amenity.

5.4.2.3 Significance of Effects

As for landscape effects, to classify the significance of visual effects the magnitude of change to the view is measured against the sensitivity of the viewpoint using the guidance in Table 5-3 and Figure 5-5 above.

5.4.3 Quality of Effects

In addition to predicting the significance of the effects, EIA methodology requires that the quality of the effects be classified as positive/beneficial, neutral, or negative/adverse. For landscape to a degree, but particularly for visual effects, this is an inherently subjective exercise. This is because landscape and visual amenity are perceived by people and are therefore subject to variations in the attitude and values - including aesthetic preferences - of the receptor. One person's attitude to a development may differ from another person's, and thus their response to the effects of a development on a landscape or view may vary.

Additionally, in certain situations there might be policy encouraging a particular development in an area, in which case the policy is effectively prescribing landscape and visual change. (This is relevant because, in the case of land use, the policy is written by the democratically elected local government. Therefore, the policy can be assumed to reflect the values of the local population). If a development achieves the policy objective, the resulting effect might be considered positive, even if the landscape character or views are profoundly changed. The classification of quality of landscape and visual effects should seek to take these variables into account and provide a reasonable and robust assessment.

5.4.4 Relevant Legislation & Guidance

5.4.4.1 Cork County Development Plan 2022-2028 – Land Use Zoning

In the Cork County Development Plan 2022-2028 (CCDP), the site is zoned RE - Residential. It is part of a large RE zoned area to the north east of the town centre (but well within the Bandon development boundary), which has a Specific Objective, BD-R-03.

Specific Objective BD-R-03 requires that the lands be developed at 'Medium Density A'. In Section 4.8.10, the CCDP states: "*An increased minimum threshold is proposed for the Medium A Density category to 30 units/ha as per the Guidelines. The category allows for the provision of apartments within the unit typology mix but it is not a requirement. This category is generally applicable to suburban and greenfield sites in larger towns >5,000 population and those planned to grow >5,000 population over the lifetime of the Plan*". [emphasis added]

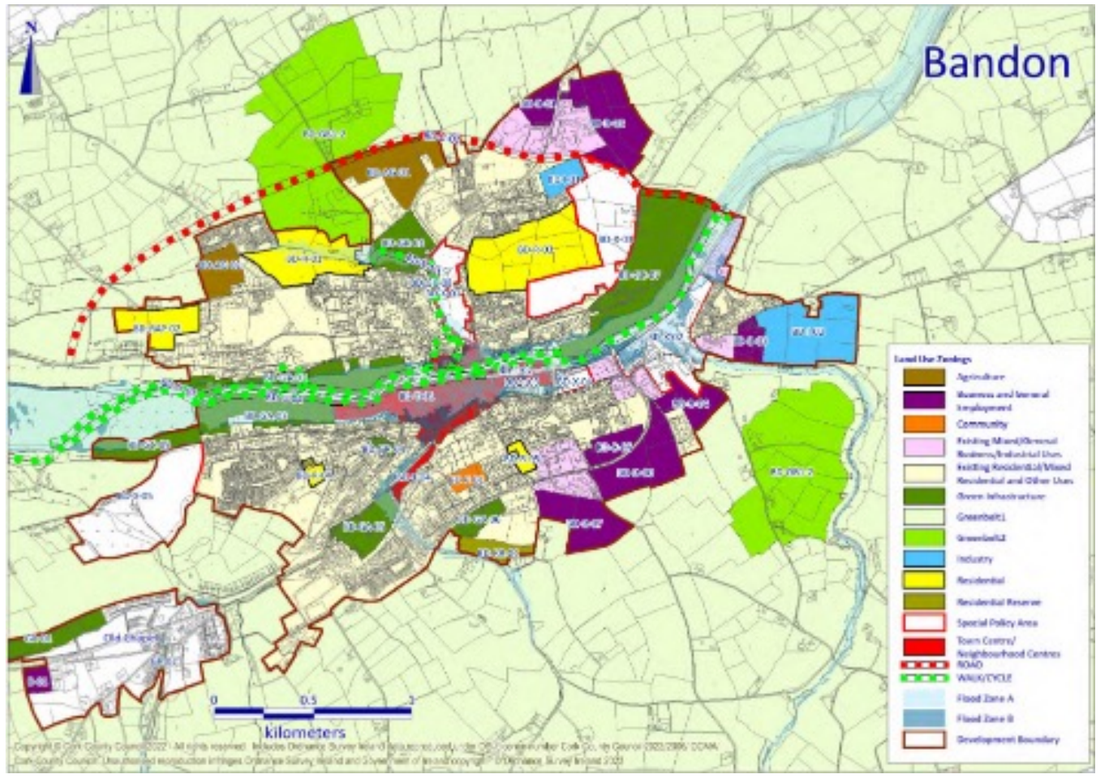

Figure 5-6 Cork County Development Plan 2022-2028 land use zoning for Bandon

Specific Objective BD-R-03 (applicable specifically to the site) of the CCDP states:

> *"The layout also needs to make provision for pedestrian and cycleway links with existing adjoining residential areas and future links with the school campus."*
>
> *"Proposals for this development are to include provision for an overall landscaping plan to assimilate the scheme into the hillside and should include retention of mature trees and boundaries." [emphasis added]*

Most notable, from the landscape and visual perspective, is the requirement that the design should (a) retain boundary hedgerows and trees, and (b) seek to 'assimilate' the development into the hillside.

5.4.4.2 Cork County Development Plan 2022-2028 – Landscape Character Assessment and Draft Landscape Strategy 2007

The CCDP includes the following key objectives relating to landscape:

GI 14-9: Landscape

> *"a) Protect the visual and scenic amenities of County Cork's built and natural environment.*
>
> *b) Landscape issues will be an important factor in all land-use proposals, ensuring that a pro-active view of development is undertaken while protecting the environment and heritage generally in line with the principle of sustainability.*
>
> *c) Ensure that new development meets high standards of siting and design.*
>
> *d) Protect skylines and ridgelines from development.*
>
> *e) Discourage proposals necessitating the removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments."*

GI 14-10: Draft Landscape Strategy

> *"Ensure that the management of development throughout the County will have regard for the value of the landscape, its character, distinctiveness and sensitivity as recognised in the Cork County Draft Landscape Strategy and its recommendations, in order to minimize the visual and environmental impact of development, particularly in areas designated as High Value Landscapes where higher development standards (layout, design, landscaping, materials used) will be required."*

GI 14-11: Draft Landscape Strategy, Land Use Plans and Policy Guidance

> *"Have regard to the Draft Cork County Landscape Strategy (2007) in the preparation of plans and other policy guidance being prepared during the lifetime of the Plan…*
>
> *"Review and update the Draft Cork County Landscape Strategy as soon as is practicable following the publication of a National Landscape Character Assessment as well as taking into account any associated guidelines…*

"Whilst advocating the protection of such scenic resources the Plan also recognises the fact that all landscapes are living and changing, and therefore in principle it is not proposed that this should give rise to the prohibition of development along these routes, but development, where permitted, should not hinder or obstruct these views and prospects and should be designed and located to minimise their impact. This principle will encourage appropriate landscaping and screen planting of developments along scenic routes."

The CCDP refers to the Landscape Character Assessment (LCA) undertaken for Co. Cork in 2007. The LCA identified 76 no. individual Landscape Character Areas and consolidated these into 16 no. Landscape Types (with some types divided into sub-types). The LCA assigned Landscape Value, Landscape Sensitivity and Landscape Importance ratings to each type (see Appendix F of the CCDP).

Bandon falls into the Broad Fertile Lowland Valleys Landscape Type, specifically Sub-type 6a. This landscape type is assigned the following ratings:

Landscape Value: *High (in a range of Low, Medium, High, Very High)*

Landscape Sensitivity: *High (in a range of Low, Medium, High, Very High)*

Landscape Importance: *County (in a range of Local, County, National,*

Based on a combination of these ratings, the CCDP has designated Co. Cork's most valuable landscapes, or 'High Value Landscapes' (see Figure 5-7 below). Bandon falls outside of the High Value Landscape designation.

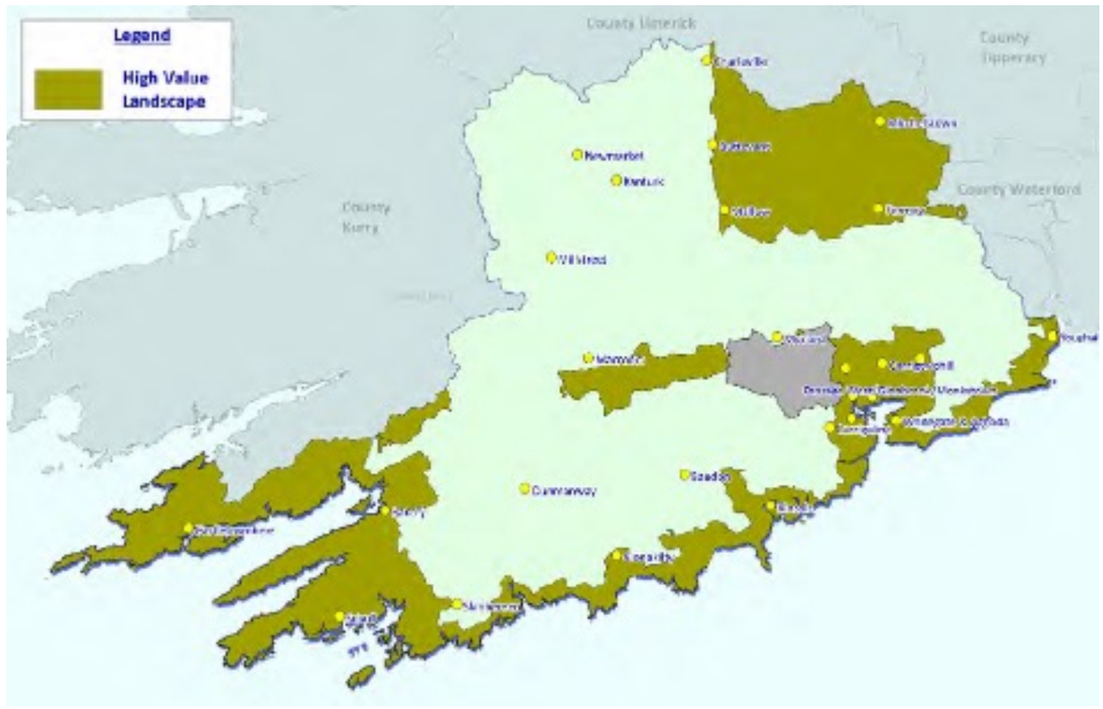

Figure 5-7 Cork County Development Plan 2022-2028 Figure 14-2: High Value Landscapes

The principal purpose of LCA is to determine the sensitivity of the landscape to change, in order to formulate policy for landscape and development management. The CCDP (paragraph 14.8.11) states:

"The capacity of each landscape character type to absorb new development will largely depend on the sensitivity of the landscape type. Developments which are likely to create a significant environmental and particularly visual impact will best be absorbed in areas where the landscape is robust, i.e. has the capacity to absorb development without significantly changing its character. All developments should be assessed on a site-by-site basis to avoid, minimise or mitigate any potential environmental or visual impact."

While the site falls into a Landscape Character Type (6a) classified as High Value and High Sensitivity, it should be recognised that the site is within the Bandon urban area, less than 500m from the centre of the town and well within the wider settlement boundary (refer to Figure 5-6 above). The site's landscape context is thus urban. Established urban areas are inherently robust to urban development, i.e. they have the capacity to absorb further development without significant change in character. This is the case with the subject site and the development type proposed – which is similar in typology and character to the existing and permitted developments all around the site.

This means that the site and the receiving environment should not necessarily be deemed highly sensitive to landscape change of the type proposed, although factors such as the site's prominent hilltop location do point to a relatively high sensitivity for the urban area.

5.4.4.3 Cork County Development Plan 2022-2028 – Protected Views and Scenic Routes

The CCDP includes the following key objectives relating to the protection of visual amenity:

GI 14-12: General Views and Prospects

"Preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountains, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty as recognized in the Draft Landscape Strategy."

GI 14-13: Scenic Routes

"Protect the character of those views and prospects obtainable from scenic routes and in particular stretches of scenic routes that have very special views and prospects identified in this Plan. The scenic routes identified in this Plan are shown on the scenic amenity maps in the CDP Map Browser and are listed in Volume 2 Heritage and Amenity Chapter 5 Scenic Routes of this Plan."

GI 14-14: Development on Scenic Routes

"*a) Require those seeking to carry out development in the environs of a scenic route and/or an area with important views and prospects, to demonstrate that there will be no adverse obstruction or degradation of the views towards and from vulnerable landscape features. In such areas, the appropriateness of the design, site layout, and landscaping of the proposed development must be demonstrated along with mitigation measures to prevent significant alterations to the appearance or character of the area. [emphasis added]*

b) Encourage appropriate landscaping and screen planting of developments along scenic routes (See Chapter 16 Built and Cultural Heritage)."

There is one designated Scenic Route potentially affected by the proposed development. This is the Scenic Route S64 (see Figure 5-8 overleaf), described in the CCDP as follows: *"N71 National Secondary Road between Bandon and Inishannon - Views of the Bandon River & woodland".*

It is possible that the proposed development would be visible from the final western stretch of the Scenic Route as it approaches Bandon. This potential impact is assessed in Section 5.8.3.15 of this chapter.

Figure 5-8 Site location in relation to Scenic Route S64, the N71 approaching Bandon from the east (red line on the map)

5.4.4.4 Cork County Development Plan 2022-2028 – Green Infrastructure and Development

GI 14-3: Green Infrastructure and Development

"a) Require new development and redevelopment proposals, to contribute to the protection, management and enhancement of the existing green and blue infrastructure of the local area in terms of the design, layout and landscaping of development proposals.

b) Require all development to submit a green infrastructure statement outlining how the proposal contributes to green and blue infrastructure both within its environs as well as within the wider settlement or rural area. Larger developments (multiple residential developments including Part 8 applications, retail, industrial, mineral extraction, etc) will be expected to prepare a Landscape/ Green (and Blue) Infrastructure Plan including a Landscape Design Rationale. This Plan should identify environmental assets and include proposals which protect, manage and develop green infrastructure resources in a sustainable manner. [emphasis added]

c) Over the lifetime of the Plan the Council will prepare a guidance note/update on best practice in integrating green and blue infrastructure/biodiversity within development proposals."

5.4.4.5 Cork County Development Plan 2022-2028 – Architecture

Section 16.3.31 of the CCDP, regarding new buildings and their surroundings, states: *"High Quality design adds quality to the places we live, work and enjoy. Ensuring high quality design adds value to our towns, villages and countryside and improves our quality of life. The Plan will promote high quality design by encouraging its integration into every aspect of the Plan".*

HE-16-21: Design and Landscaping of New Buildings

"a) Encourage new buildings that respect the character, pattern and tradition of existing places, materials and built forms and that fit appropriately into the landscape.

b) Promote sustainable approaches to housing development by encouraging new building projects to be energy efficient in their design and layout.

c) Foster an innovative approach to design that acknowledges the diversity of suitable design solutions in most cases, safeguards the potential for exceptional innovative design in appropriate locations and promotes the added economic, amenity and environmental value of good design.

d) Require the appropriate landscaping and screen planting of proposed developments by using predominantly indigenous/local species and groupings and protecting existing hedgerows and historic boundaries in rural areas. Protection of historical/commemorative trees will also be provided for." [emphasis added]

5.4.4.6 Cork County Development Plan 2022-2028 – Cultural Heritage Designations

The subject site is not within (or adjacent to) any of Bandon's Architectural Conservation Areas (ACAs). These are concentrated in the historic town centre and to the west of the centre. The nearest ACA to the site is the Knockbrogan East ACA, approximately 250m to the south of the site, down the hill, alongside the river. There are also no protected structures on or in close proximity to the site.

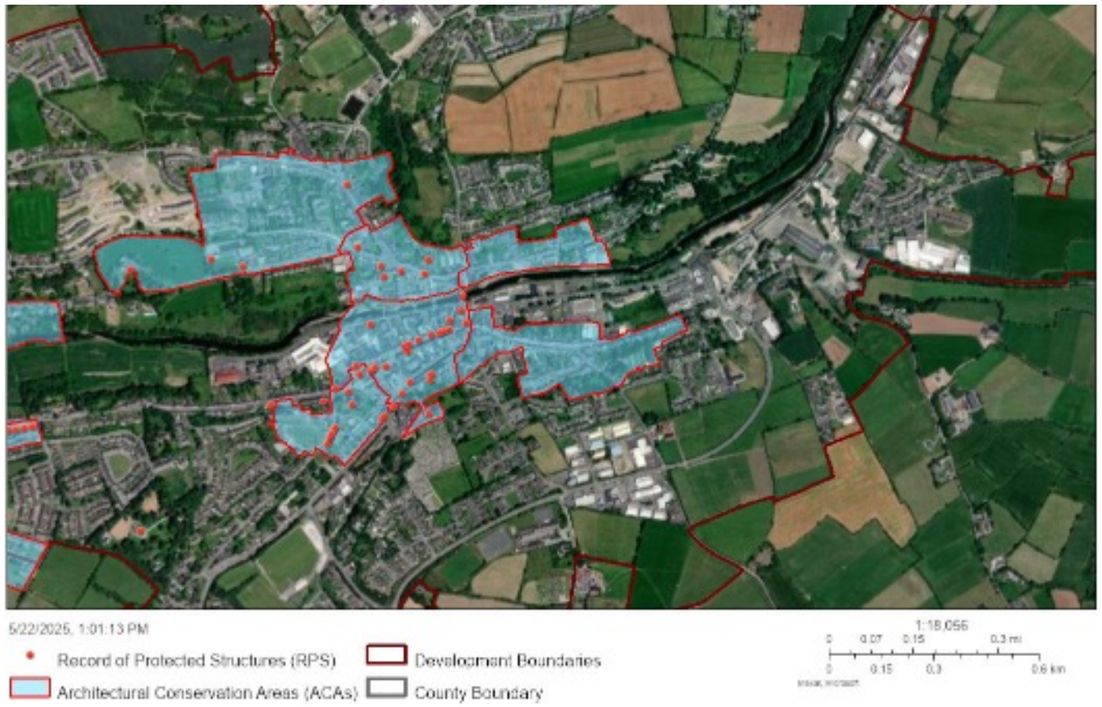

Figure 5-9 Site location in relation to Architectural Conservation Areas and Protected Structures

Although not close to any of the ACAs or protected structures, the proposed development would likely be visible from some of these areas, for example St Patrick's and St Peter's Churches, which are both in elevated positions, and Bandon Bridge. The visual effects on these sensitive locations are assessed in Section 5.8.3 of this chapter (Viewpoints 8, 10 and 11 specifically). It must be recognised, however, that these cultural/architectural heritage assets are themselves part of the urban area, and must have some tolerance for the continued development/ evolution of the town.

5.4.5 Site Surveys/Investigations

Survey of the receiving environment, for this chapter, was carried out by the chapter author in June 2025. The baseline photography and survey for the verified photomontages was carried out in August 2025 following receipt of Cork County Council's Opinion.

5.4.6 Consultation

A Section 247 pre-planning consultation meeting was held with Cork County Council on 16th April 2025 via MS Teams, and a Section 32B meeting was held on 9th July 2025 via MS Teams. The author of this LVIA chapter attended the Section 32B meeting.

An LVIA baseline report (titled Landscape and Visual Impact Assessment – Preliminary Report) was issued to the Council as part of the submission requesting the Section 32B meeting. That report included a list and map of 15 no. viewpoints, which were suggested for detailed visual effects assessment (informed by verified photomontages) in the final LVIA (i.e. this chapter). The Council was requested to provide feedback on the suggested viewpoints.

Following the Section 32B meeting, the Council issued its Opinion. No specific commentary was made on the LVIA Preliminary Report's suggested viewpoints, although Item 11 under Architecture, Site Layout and Design stated: "*Submit detailed photomontages of the proposed development*". This chapter is accompanied by a booklet of 15 no. verified photomontages.

5.5 Difficulties Encountered

No difficulties were encountered in the preparation of this chapter.

5.6 Baseline Environment

5.6.1 Landscape Character

The site is located on a hill (Knockbrogan) to the north of Bandon town centre, within the settlement boundary as defined in the CCDP, less than 500m from Bandon Bridge which marks the centre of the town.

Figure 5-10 Site location in the context of Bandon (settlement boundary outlined white)

Bandon has a distinctive urban form and character deriving from its topography and history. The town was built in the valley of the Bandon River, and is enclosed by hills to the north (Knockbrogan) and south (Knockanrea). Bandon was founded in the early 17th century during the Munster Plantation. As a plantation town its layout was planned, with streets running parallel to the river on both sides, connected by Bandon Bridge at the centre. Outside of the centre, roads ran up the hillsides into the rural hinterland.

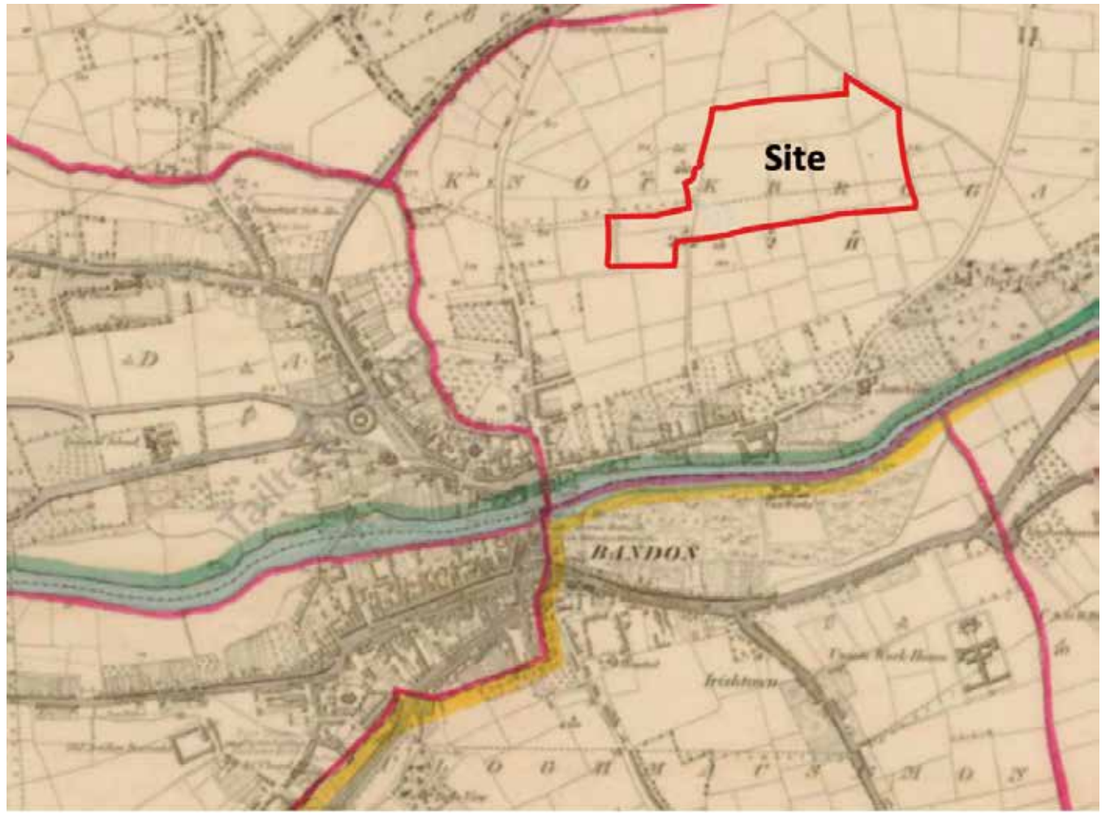

Figure 5-11 Ordnance Survey 6 inch map showing Bandon in the 19th century

The town became an important centre of commerce and industry, and the arrival of the railway in the mid 19th century spurred further growth. There was a period of industrial decline in the 20th century, and the railway closed in the 1960s, reducing the town's connectivity. However, in the latter part of the 20th century and the early 21st century Bandon again grew, the urban area expanding up the hillsides north and south of the centre. Between 2016 and 2022 Bandon's population grew by 17.8% (from 6,957 to 8,196). In this period the population of County Cork grew by 8% and the national population by 8.1%.

The CCDP land use zoning map (Figure 5-12) shows the current and planned form of the town. The original linear core, with a relatively fine grain and a mix of land use and building typologies, can be seen along the river. Outside of this are areas of suburban character on the hillsides overlooking the valley and the town centre.

On the north side of the town the suburban area is not yet consolidated. Large patches of farmland remain between the housing estates. These areas are mostly zoned for residential development or identified as Special Policy Areas, and there is extensive development currently under construction, including adjacent to the site (refer to Figures 5-13 to 5-16). Around the outer edges of the town are zones of business, employment and industrial use. A notable feature of the zoning map is the broad belt of green infrastructure in the valley, as well as green belt areas on the north and south sides of the town, transitioning into the rural hinterland.

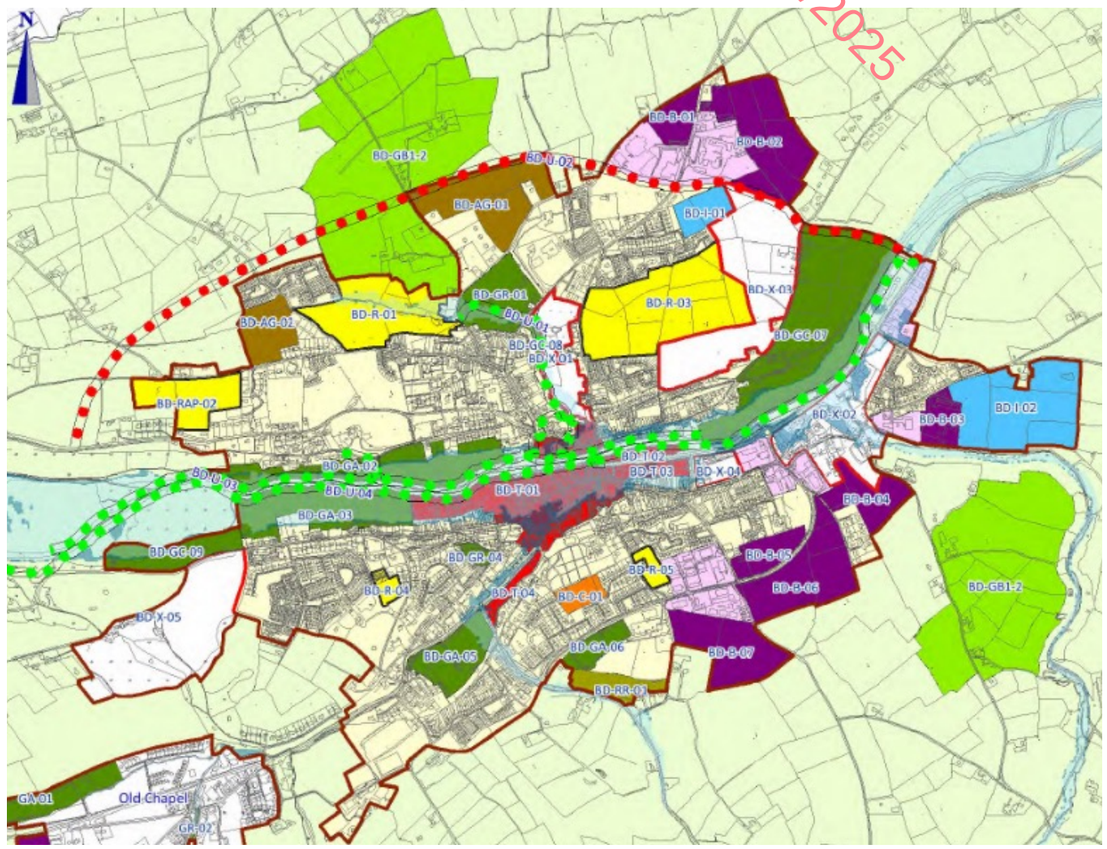

Figure 5-12 Cork County Development Plan 2022-2028 land use zoning map

Figure 5-13 Construction in the Knockbrogan area (adjacent to the site), overlooking Bandon town centre

Figure 5-14 Housing under construction on the Knockbrogan ridge, visible from the town centre

Figure 5-15 Housing under construction on Knockbrogan, visible from the town centre

Figure 5-16 New housing off Upper Convent Hill to the north west of the town centre

5.6.2 The Site

The site is part of one of the remaining patches of farmland within the urban area north of the town centre. This area, Knockbrogan, is identified as Specific Objective BD-R-03 in the CCDP (see Section 4.4.4.1 above). Its residential zoning recognises its favourable location close to the town centre, close to existing and future business, employment and industrial uses, and to a variety of urban amenities including green infrastructure.

Figure 5-17 The site and immediate environs

The site is comprised of several adjoining fields. The fields are divided by hedgerows of varying height and thickness with occasional larger trees. The hedgerows and tree groups along the northern, southern and eastern boundaries are the most substantial, while the internal hedgerows are sparse and low. The hedgerows are an important structural element of the landscape and connect the site to the town's green infrastructure network.

A Tree Appraisal and Arboricultural Assessment of the site was carried out by GEOTREE Ltd. The notable vegetation features on the site include (see Figure 5-18 overleaf):

- Tree Groups 1 and 2 inside the south west boundary (shared with the neighbouring estate, Radharc an Bhaile). These are double lines of young to early mature Alder trees, in good condition. They provide a landscape/visual buffer between the site and the neighbouring estate to the south.
- Hedgerows 2, 3, 4, 5, 6, 7 around the northern, eastern and part of the southern boundaries. These are mostly mature hedgerows, with Hawthorn the dominant species, in good condition (apart from H7).
- Trees 672-677, located in the northern, eastern and southern boundary hedgerows. These are early mature to mature Ash and Oak trees growing in the hedgerows, in varying condition.

Figure 5-18 Tree constraints plan by GEOTREE Ltd

The site topography is one of its key characteristics. It is located on the ridge of an east-west aligned linear hill (Knockbrogan). The peak of the hill lies just to the west. The land falls steadily to the east across the site, and more steeply to the north and south. The steepest gradient is just inside the southern boundary.

The elevated/ridgeline position has implications for the visibility of development on the site (although the hilltop to the west screens the site in that direction), and the site topography has implications for the layout of any future development. The layout and vertical positioning of the buildings should respond to the topography, so that the topography is reflected in the new built form.

Figure 5-19 Site topography

5.6.3 Landscape Context

Immediately to the west of the site, between the site and the Cork Road, are two development sites owned by the Applicant. Planning permission has been granted for residential developments on these sites (Cork Co. Co. Ref. 21/4059 and Ref. 24/5216, see Figure 5-20 below) and construction is well advanced (Figures 5-21). The proposed development will be accessed by the road serving these developments, leading from the Cork Road to the west. Both of the permitted developments are comprised of terraced and semi-detached two storey houses, with the layouts and levels responding to the topography of the hill. The proposed development is an eastward extension of this new/future hilltop neighbourhood.

Figure 5-20 Permitted developments (outlined blue) to the west of the site, between the site and the Cork Road

Figure 5-21 A view into the new development from the Cork Road

To the south west of the site is the Radharc an Bhaile housing estate. The estate is characterised by terraced and semi-detached two storey houses on a steeply sloping site (see Figure 5-23). The construction of the estate required cutting into the hillside, so that the level of Radharc an Bhaile is substantially lower than that of the subject site to the north and east. The northernmost houses in Radharc an Bhaile, closest to the site, have terraced rear gardens stepping up the hillside towards the site. Tree Groups 1 and 2 (see Figure 5-18) are planted inside the site boundary behind these houses.

Figure 5-22 Site location in relation to Radharc an Bhaile

Figure 5-23 The houses of Radharc an Bhaile, which back onto the site boundary

To the south and east of the site, between the site and Knockbrogan Road, is an area of farmland of similar character to the site. The CCDP identifies these lands Special Policy Area BD-X-03, Knockbrogan Expansion Area, and specifies that its development should include an education campus with primary and secondary schools. It also requires that the lands' development should provide for pedestrian and cycle links to the subject site to the west.

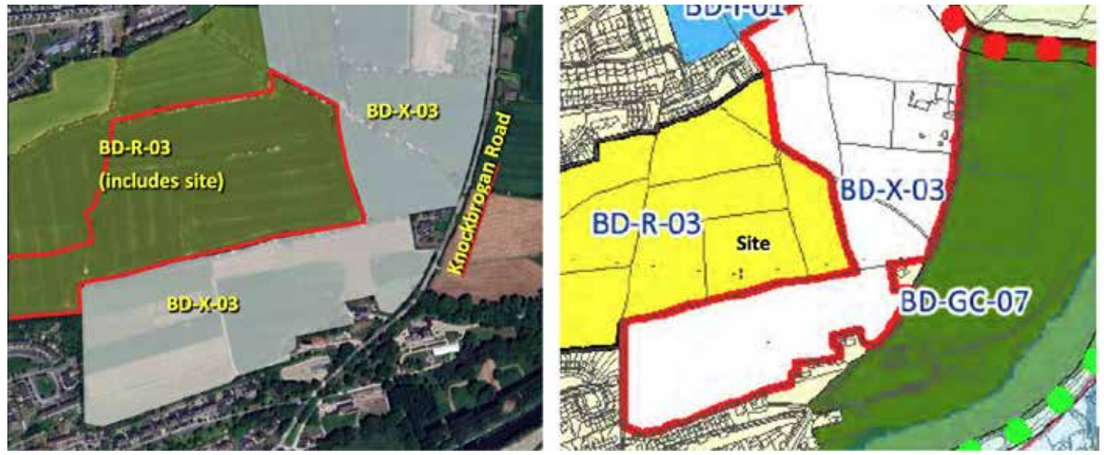

Figure 5-24 Knockbrogan Expansion Area to the east and south of the subject site

To the north of the site is a belt of farmland which forms part of BD-R-03 (and is therefore zoned Residential like the site). These future development lands separate the site from the Whitethorn Grove and Ard an Chuilinn housing estates a short distance to the north.

Figure 5-25 Site location in relation to Whitethorn Grove and Ard an Chuilinn

The site and immediate environs are thus largely greenfield, but located within the settlement boundary of Bandon and zoned for urban development, with the transformation of the BD-R-03 area into a new hilltop residential neighbourhood already underway (with the ongoing construction of the two adjacent permissions, Cork Co. Co. Ref. 21/4059 and Ref. 24/5216).

5.6.4 Nearest Public Roads

The nearest roads to the site are:

- The Cork Road which passes c. 170m to the west, beyond the two neighbouring development sites (see Figures 5-15, 5-16);
- The Macroom Road, over 300m to the north, beyond Whitethorn Grove and Ard an Chuilinn;
- The Knockbrogan Road c. 175m to the east beyond the BD-X-03 Knockbrogan Expansion Area (see Figure 5-24 above);
- Summerhill Close, c. 200m to the south, also beyond part of the BD-X-03 area.

The absence of frontage to any existing public road is a significant factor in the proposed development's potential landscape and visual effects. The site is well removed from any part of the existing public realm and this negates the potential for close-up visibility/visual impact. The development will only be seen from some distance across the landscape.

5.6.5 Distant Vantage Points

While there is limited potential for close-up views of the proposed development (from the publicly accessible areas), due to (a) the site's hilltop position and (b) the valley-and-hills topography of the town, there is potential for visibility from a distance across the urban landscape – particularly from the south side of the town. This includes sensitive vantage points such as St Finbarr's Place on the south side of Bandon Bridge, and the two churches (St Patrick's and St Peter's) which are both perched on local rises, giving them panoramic views over the town centre and the river towards Knockbrogan (and the site) on the north side of the town.

Some of the roads descending from the hills to the south of Bandon are also so aligned that they provide views across the town towards the site. These include Casement Road and the Bandon Relief Road (the N71).

East of the town, the N71 runs alongside the Bandon River on the floor of the valley. A stretch of the road, as it approaches Bandon from the east, is designated a Protected Scenic Route (S64) in the CCDP. At points along the road, development on the site may be visible on the horizon.

5.7 The 'Do Nothing' Scenario

In the do-nothing scenario, the site would remain as a patch of agricultural/greenfield land within the urban footprint of Bandon (refer to Figures 5-6 and 5-8 above). The BD-R-03 area would be partially developed, with housing (Cork Co. Co. Ref. 21/4059 and Ref. 24/5216) extending part-way along the Knockbrogan ridgeline, and ending abruptly at the site's west boundary (see Figure 5-26 below). The CCDP's plan for the consolidation of the urban area on the hills north of the town centre would not be fully be realised.

Figure 5-26 A view from the junction of Casement Road and the N71 Bandon Relief Road, showing the partially developed BD-R-03 area as seen from an elevated vantage point on the south side of the town

5.8 Potential Significant Effects

5.8.1 Construction Phase – Landscape Effects

5.8.1.1 Landscape Sensitivity

Informed by the analysis of the baseline environment (Section 5.6 above), and consideration of relevant policy (Section 5.4.4), the landscape sensitivity of the receiving environment can be classified 'medium'.

(Definition of medium sensitivity (see 5.4.1.1 above): *Areas where the landscape has certain valued elements, features or characteristics but where the character is mixed or not particularly strong, or has evidence of alteration, degradation or erosion of elements and characteristics. The landscape character is such that there is some capacity for change. These areas may be recognised in landscape policy at local or county level and the principle management objective may be to consolidate landscape character or facilitate appropriate, necessary change.)*

The classification of medium sensitivity is based on the following factors:

- The site lies within the settlement boundary of Bandon (i.e. the context is urban), less than 500m from Bandon Bridge (at the centre of the town), and is zoned for residential development (as part of the BD-R-03 area).
- The development of the BD-R-03 area has begun, with construction well advanced on two plots adjacent to the site (providing the road connection to the site from the Cork Road). The site's immediate context is thus in a process of plan-led transition from greenfield to urban.
- There is similar development taking place elsewhere on the hills north of the town centre (see Figure 5-16). The trend of change (expansion and consolidation of the neighbourhoods) is widespread across the northern hillsides.
- The site is situated on the upper slopes and ridgeline of knockbrogan. Its elevation exposes the site to view, particularly from similarly elevated locations on the south side of the town. This includes sensitive locations such as St Patrick's and St Peter's churches.
- The site includes mature hedgerows in mostly good condition on its northern, eastern and southern boundaries, and there are several trees in these hedgerows. The hedgerows are a landscape/visual and biodiversity asset, connecting the site to the local green infrastructure network.
- The site (and Bandon as a whole) falls into the Broad Fertile Lowland Valleys Landscape Type (as defined in the Cork Landscape Character Assessment, 2007). While the value and sensitivity of this landscape type are rated as high, Bandon falls outside of the County-wide High Value Landscape designation (see Figure 5-7 above).
- The site is well removed from the various Architectural Conservation Areas (ACAs) and protected structures in the centre of town and to the west (refer to Figure 5-9 above). There is thus no potential for direct impact on any of these cultural landscape assets, although the proposed development could be visible from them.
- The nearest protected view or scenic route is the Scenic Route 'S64', the western stretch of the N71 as it enters Bandon from the direction of Inishannon (refer to Figure 5-8 above).

In summary, the site's landscape context is in a process of plan-led change from greenfield/agricultural to urban residential, and the wider context is urban. There is thus some capacity for change, if in keeping with the ongoing trend of consolidation of Bandon's northern neighbourhoods. The hilltop topography requires some a design response, so that (a) the landform is reflected in the new urban landscape, and (b) the development - which is unavoidably visually exposed - integrates comfortably and is not excessively prominent. The existing hedgerows and trees are another landscape asset requiring consideration, and ideally incorporation into the evolved landscape so that the site remains integrated with the local green infrastructure.

5.8.1.2 Magnitude of Landscape Change

Over the course of the estimated 48 month construction period, the site and immediate environs would be disturbed by construction activity including the erection of site hoarding, site clearance and levelling, haulage and storage of materials, general construction activity and the incremental growth of buildings on site.

The change (i.e. the presence of a construction site in the landscape) would be temporary. It is also a factor that the wider receiving environment is urban, and that the immediate environs are currently undergoing similar change (construction on two plots forming part of the BD-R-03 area). In this context, further, similar construction-related change is not unexpected.

In summary, the magnitude of landscape change in the construction phase would be low-medium.

5.8.1.3 Significance of Landscape Effects

Measuring the magnitude of change against the landscape sensitivity (refer to Table 5-3 and Figure 5-5), the significance of the landscape effects during construction would be moderate-slight (the effects reducing with increased distance from the site).

Construction is inherently disturbing of the landscape. The landscape effects during construction would thus be of moderate-slight significance, negative, and direct.

5.8.2 Construction Phase – Visual Effects

Construction is also inherently unsightly. The visual effects of construction are therefore negative. The magnitude of visual change and the significance of the effects however vary considerably depending on the location of the viewer. The construction phase visual effects are classified for each of the representative viewpoints in Table 5-7 below.

5.8.3 Operational Phase – Visual Effects

Informed by the analysis of the receiving environment and relevant policy, 15 no. viewpoints (see Figure 5-27) were selected for detailed visual effects assessment informed by verified photomontages. The viewpoints are as follows:

1. Macroom Road entering Bandon from the north east.
2. Whitethorn Grove, the nearest area of existing public realm, and the nearest residential receptors, to the north of the site.
3. Cork Road, the nearest area of existing public realm to the west of the site.
4. Radharc an Bhaile, the nearest existing residential receptors to the site.
5. Summerhill Heights, the nearest area of existing public realm, and the nearest existing houses, to the south of the site.
6. Knockbrogan Road, where it passes closes to the site (to the south east).
7. Kilbeg Cemetery and nearby houses, off the local road (Kilbeg South, which extends from the Kockbrogan Road) to the north east.
8. St Finbarr's Place/Bandon Bridge, representing the town centre ACAs and the protected structure (the bridge).
9. Glaslyn Road, a view from a busy road on the south side of the Bandon River in the town centre.
10. St Peter's Church, protected structure and part of the St Peter's ACA.
11. St Patrick's Church, protected structure and part of the South Main Street ACA.
12. Árdán Na N-Óglach, representing the central urban neighbourhoods on the south side of the town opposite Knockbrogan.
13. Casement Road at N71 Bandon Relief Road junction, where a panoramic view across the town towards Knockbrogan is provided.
14. N71 Bandon Relief Road as it curves down towards the river, affording a view over the river valley towards Knockbrogan on the far side of the town.
15. N71 Scenic Route (R64) to the east of Bandon, as the road (and adjacent greenway) approaches the town.

Figure 5-27 Viewpoints for visual effects assessment

The potential effects on these views are individually assessed below. The assessments should be read in conjunction with the photomontages provided under separate cover.

5.8.3.1 Viewpoint 1 – Macroom Road

Existing View

- As the Macroom Road enters Bandon, it passes a number of industrial and retail warehouse premises before arriving in an area of suburban character approaching the Cork Road junction.
- There are occasional views to the south, over the roofscape of the northern suburbs (Ard an Chuilinn and

Whitethorn Grove), with the ridge of Knockbrogan rising behind them. The hedgerow on the northern site boundary can be discerned against a backdrop of temporary earth stockpiles on the site.

- Viewpoint sensitivity: Low-Medium. Visual amenity along this stretch of road is limited (due to the nature of the existing development in the area). Typical viewers (road users, shoppers at Bandon Co-Op and workers at ABP Food Group, etc.) are not sensitive to change of the type proposed in this urban-edge location. However, the gateway location (to the town) raises the sensitivity somewhat.

Proposed View

- Terraces of two storey houses would be intermittently visible - between foreground buildings, vegetation, boundaries, etc. - in the middle distance on the ridge of Knockbrogan. The houses would be partially screened by the retained hedgerow on the northern site boundary, and the gaps between the terraces and steps in roofline disaggregate the form, softening the development's visual presence.
- Magnitude of change: Low. The introduction of additional houses to the urban landscape, in the middle distance, seen intermittently or party screened by foreground elements, would constitute a low magnitude of change.

Effect Significance

- Slight neutral. There would be a slight (and not inappropriate) consolidation of the urban landscape, with no significant loss or gain in visual amenity.

5.8.3.2 Viewpoint 2 – Whitethorn Grove

Existing View

- Whitehtorn Grove is the nearest exiting residential estate to the north of the site. It is set on the northern side slope of Knockbrogan. The existing view shows the land rising to the south of Whitethorn Grove, towards the Knockbrogan ridgeline (and the site). A grass covered earth stockpile can just be discerned on the site (over the boundary hedgerow of Whitethorn Grove).
- Viewpoint sensitivity: Medium. Residential receptors are sensitive to inappropriate change, but, as a residential estate/setting within the urban environment, there is some tolerance for change of similar type.

Proposed View

- Although largely screened by the foreground hedgerow and trees, terraces of two storey houses would be visible in the middle distance, higher up the slope on the Knockbrogan ridgeline.
- A line of trees is proposed inside the retained site boundary hedgerow, in front of the new houses. These can just be discerned in the proposed view. In time, as they grow, they would break up and soften the visual presence of the building.
- Magnitude of change: Low. The introduction of new houses to an existing urban residential neighbourhood setting, in the middle distance, partly screened by vegetation in the foreground and on the site, would constitute a low magnitude of change.

Effect Significance

- Slight neutral. There would be a slight (and not inappropriate) consolidation of the urban landscape, with no significant loss or gain in visual amenity.

5.8.3.3 Viewpoint 3 – Cork Road

Existing View

- The Cork Road is the nearest area of public realm to the west of the site - until the permitted developments Ref. 21/4059 and 24/5216, now nearing completion in the foreground of the view are occupied.
- Prior to the construction of these developments, the road was lined by a hedgerow on the edge of an agricultural field. The new estate has dramatically changed the landscape character locally, from a pocket of 'rural landscape' within the urban footprint of Bandon, to an attractive inner urban neighbourhood (less than 500m from Bandon Bridge at the centre of town).
- Viewpoint sensitivity: Low-Medium. The landscape in view is in a process of transition. There is capacity for further, similar change.

Proposed View

- The majority of the proposed development would be hidden from view by the estate in the foreground, and the convex topography, but the roofs of a number of new houses would be visible in the distance, appearing as a continuation of the estate.
- Magnitude of change: Low. The introduction of a number of houses to the existing estate, , in the middle distance, would constitute a low magnitude of change.
- Effect Significance
- Not significant neutral. There would be no significant change to the view, although the stepped roofs of the new houses in the distance would indicate the continuation of the estate to the east.

Cumulative Effects

- Significant positive. The proposed view shows the proposed development in combination with the adjacent permitted developments Ref. 21/4059 and 24/5216, now nearing completion in the foreground of the view. Their cumulative effect is the establishment of an attractive new hilltop neighbourhood on Knockbrogan, realising the CCDP Policy Objective BD-R-03 and contributing to the overall consolidation of the Bandon urban area.

5.8.3.4 Viewpoint 4 – Radharc an Bhaile

Existing View

- Radharc an Bhaile is the nearest existing residential estate to the site (see Figure 5-18 above). It is set on the southern side of Knockbrogan, below the site. The view shows the dramatic topography of the area, with the northernmost houses overlooking a steeply sloping green, towards the town centre in the valley to the south.
- A row of trees inside the site's southern boundary (Tree Group 1, see Figure 5-14) can be seen protruding above the roofline of some of the houses.
- Viewpoint sensitivity: Medium. Residential receptors are sensitive to inappropriate change, but, as a residential estate/setting within the urban environment, there is some tolerance for change of similar type.

Proposed View

- The proposed development would be largely screened from view. Only the corner of a gable wall and roof of one house would protrude above the roofs of the foreground houses.

- A large number of new trees are proposed inside the site boundary in this area. In time these trees would mature, complementing the retained trees inside the boundary, to form a substantial landscape/ visual buffer between the houses of Radharc an Bhaile and the new estate.
- Magnitude of change: Negligible. The visibility of a small part of one house would constitute a negligible change to the view.
- Although not strictly a landscape/visual issue, it is notable from the landscape plan excerpt above that minimal prospect of overlooking (of the Radharc an Bhaile houses) arises from the proposed development. The nearest new houses present their gable walls to Radharc an Bhaile, and, additionally, the belt of proposed trees inside the boundary, complementing the existing Tree Groups 1 and 2, would form a dense visual screen.

Effect Significance

- Not significant neutral. There would be no significant change to the view.

5.8.3.5 Viewpoint 5 – Summerhill Heights

Existing View

- Summerhill Heights is located well down the southern side of Knockbrogan, some 200m to the south of the site. Summerhill Heights nonetheless benefits from an elevated hillside location and the houses are positioned to take advantage of the view south over the Bandon River valley and the town centre. The site is some distance up the hill behind the houses.
- Viewpoint sensitivity: Medium. Residential receptors are sensitive to inappropriate change, but, as a residential estate/setting within the urban environment, there is some tolerance for change of similar type.

Proposed View

- The proposed development would be largely screened from view, with only the corners of a number of roofs discernible between the houses of Summerhill Heights, in the distance up the hill.
- Magnitude of change: Negligible.

Effect Significance

- Not significant neutral. There would be no significant change to the view.

5.8.3.6 Viewpoint 6 – Knockbrogan Road

Existing View

- The Knockbrogan Road passes some 115m to the east of the site. The road has a distinctly rural character, being enclosed by tall hedgerows which combine with the topography to generate a high degree of visual enclosure.
- There are no views of the site from the road, but at this location, beside the entrance to a house and farm, the gap in the roadside hedgerow affords a view towards the site. The site is however hidden by the foreground topography.
- Viewpoint sensitivity: Medium. The road has a verdant rural character despite its proximity to the town. The viewpoint also allows consideration of the effects on the single house along this stretch of the road (the house in view). The house's position on a ledge above the road affords it views over the town to the south west.

Proposed View

- The proposed development would be largely screened from view by the foreground topography and vegetation.
- Magnitude of change: Negligible.

Effect Significance

- Not significant neutral. There would be no significant change to the view.
- There would be some visibility of the development from the existing house beside the road (to the right in the view). This house is located at the fringe of a sizable town, with views over parts of the town. The visibility of new development on zoned land within the settlement boundary would not be an inappropriate change.

5.8.3.7 Viewpoint 7 – Kilbeg Cemetery

Existing View

- The Knockbrogan Road becomes the Kilbeg South local road and along this stretch, to the east of the town, there is a row of houses positioned to take advantage of the view south east over the Bandon River valley. Kilbeg Cemetery is located between the houses.
- Viewpoint sensitivity: Medium-High. Despite the proximity to Bandon, and the relatively high density of one-off houses along the road, the landscape in view is rural in character and the undulating topography and abundant vegetation combine to create an attractive landscape.

Proposed View

- The roofscape of the large new estate would be visible on a part of the horizon to the west.
- Magnitude of change: Low. Seen at a distance of over 600m, and occupying a small part of the panoramic field of view, the development would constitute a low magnitude of change.

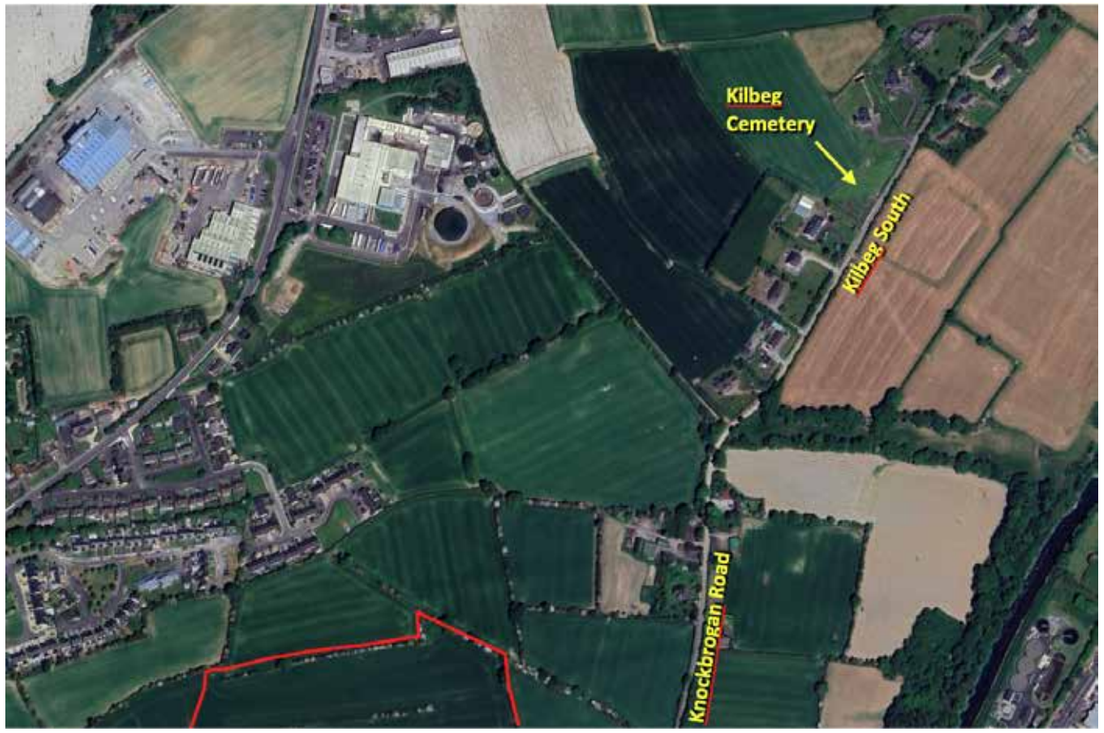

Figure 5-28 Location of Kilbeg Cemetery in relation to the site

Effect Significance

- Slight negative. The visibility of the development on the distant ridgeline would cause the urban area of Bandon to encroach into the ostensibly rural landscape of Kilbeg South. This would cause a slight reduction in visual amenity, although it should be noted that the local houses are all orientated to the south east, for the views over the Bandon River valley.

5.8.3.8 Viewpoint 8 – St Finbarr's Place/Bandon Bridge

Existing View

- Bandon Bridge marks the centre of the town, and falls into the South Main Street ACA. The view from the southern end of the bridge includes buildings from different eras, and of various uses, typologies, architecture and materials – typical of an urban landscape.
- A recent addition to the view is the residential estate on the ridge of Knockbrogan north of the bridge and extending to the right along the ridgeline. The westernmost houses (left) are aligned parallel with the ridge and this uniformity is somewhat jarring. To the right, some of the houses are turned perpendicular, presenting their gable ends to the viewer. This variation adds relief and visual interest.
- While the new estate on the hilltop is notable, viewers' focus is drawn to the town centre landscape in the foreground.
- Viewpoint sensitivity: Medium-High. Representing an ACA, the viewpoint is sensitive to inappropriate change, but the diversity of building typologies, siting (including on the ridgeline), and architecture contributes to some capacity to accommodate change.

Proposed View

- The proposed development would extend along the ridgeline to the right of the existing estate on Knockbrogan, partially screened by foreground buildings and trees.
- There are houses both parallel and perpendicular to the ridgeline, and this creates variety and visual interest. Steps in the roofline add to the visual interest and also reflect the site's topography, helping to integrate the development into the landscape. In places (e.g. far right), the retained hedgerow on the site boundary can be seen, also contributing to the development's comfortable integration.
- Magnitude of change: Low-Medium. The proposed development would be visible but not prominent, despite its ridgeline location. (It would be considerably less prominent than the existing estate in the western part of Knockbrogan.) Additionally, viewers' attention is focussed on the busy foreground landscape, and less so on the wider environs.

Effect Significance

- Slight neutral. While the extension of development along the ridgeline enclosing the town centre is conceptually significant, the prominence and effect of the development would in reality be limited. The existing estate in the western part of Knockbrogan initiated the change (the visible expansion of the central urban area up to the ridgeline). The proposed development would continue this established trend, causing no significant change in landscape character – nor any improvement or disimprovement in visual amenity.

Cumulative Effects

- Moderate neutral. The proposed view shows the proposed development in combination with the adjacent permitted developments Ref. 21/4059 and 24/5216, now nearing completion on the western part of Knockbrogan. Their cumulative effect is the visible expansion of the central urban area up to the ridgeline. This adds an important new element to the Bandon townscape, but causes no significant improvement or disimprovement in visual amenity.

5.8.3.9 Viewpoint 9 – Glaslyn Road

Existing View

- The Glaslyn Road runs parallel to the river, on its south side, east of Bandon Bridge. The road is lined on its south side by a range of business premises typical of a town centre street. On its north side, between the road and the river, are a number of unused former business/ industrial plots. These reduce the visual amenity locally.
- The view is taken from the top of some stairs leading up from the road to a supermarket. Across the wide road is a small former business premises in a hard standing beside the river. The river itself is hidden by a low stone flood wall.
- On the far side of the river is a strip of mixed use development on the valley floor, and residential estates rising up the valley side, to the west (left), up to a well defined eastern edge. The newly built estate in the western part of Knockbrogan is visible on the horizon to the left. To the right of this is the site, with a large earth stockpile prominent above a part of its southern boundary hedgerow. A notable feature of the view is the tree belt (Tree Groups 1 and 2) behind the uppermost houses of the Radharc an Bhaile estate, just below the site.

- Viewpoint sensitivity: Low-Medium. The wide road and disused premises in the foreground limit visual amenity (despite the proximity to the river), and the existing housing on the valley side and part of the Knockbrogan ridgeline contributes further to a capacity to accommodate change. The topography and vegetation in the landscape generate visual amenity and these aspects should be retained and respected.

Proposed View

- The proposed development would extend along the ridgeline to the right of the existing estate on Knockbrogan. The existing trees and hedgerow along the southern boundary would be retained, softening the development's visual presence and helping to integrate it into the landscape.
- The houses are variously positioned parallel and perpendicular to the ridgeline. This creates variety and visual interest, and – importantly – creates a permeable collective built form. The estate visibly extends over/beyond the ridgeline (as opposed to forming a solid edge.) Steps in the roofline add to the visual interest and also reflect the site's topography.
- Magnitude of change: Medium. The proposed development would be prominent due to its ridgeline location, but the considered arrangement/alignment of the buildings combined with the retained and new vegetation, would ensure that that its visual presence is not jarring.

Effect Significance

- Moderate neutral. The extension of development along the ridgeline enclosing the town centre is conceptually significant. It represents a new phase of Bandon's development, the expansion and consolidation of the urban area – a plan-led and already established trend of change across the town. Seen from the town centre, such as this location, this is not inappropriate, and does not necessarily negatively affect visual amenity. The key consideration is whether the development is of suitably high quality design, given the site's exposed location. The photomontage shows that the proposed design is appropriate, the built form permeable and responsive to/reflective of the topography, the valuable boundary vegetation retained and supplemented. The development would sit comfortably in the landscape, causing no gain or loss in visual amenity.

Cumulative Effects

- Moderate neutral. The proposed view shows the proposed development in combination with the adjacent permitted developments Ref. 21/4059 and 24/5216 on the western part of Knockbrogan (to the far left of the view). Their cumulative effect is the visible expansion of the urban area onto/over the Knockbrogan ridgeline. This adds an important new element to the Bandon townscape, but causes no significant improvement or disimprovement in visual amenity.

5.8.3.10 Viewpoints 10, 11 – St Peter's Church and St Patrick's Church Cemetery

Existing Views

- The two churches, both protected structures and both located in Architectural Conservation Areas (ACAs), are both perched on elevated sites so that the buildings are prominent in the townscape. As a result they also provide panoramic views of their surroundings.
- In views from both churches (and their grounds, including St Patrick's Cemetery), the town centre lies in the valley to the north. The town centre is characterised by a mix of uses and buildings of various typologies, architecture and materials (this is most evident in View 10).
- Beyond the town centre in the valley are the northern residential neighbourhoods rising up the hillsides, with the newly constructed estate in the western part of Knockbrogan visible on the horizon. The westernmost houses are notably parallel to the ridgeline, forming a strong built edge.
- Viewpoint sensitivity: Medium. The Viewpoints represent protected structures and ACAs, but their elevated positions provide panoramic views over an extensive, complex urban landscape. In such complex compositions, there is capacity to accommodate change without significantly altering the character or visual amenity of the landscape.

Proposed Views

- The proposed development would extend along the distant ridgeline to the right of the existing estate on Knockbrogan. The houses are mostly positioned perpendicular to the ridgeline, contrasting with the existing estate to the left, thus creating variety and visual interest.
- The landform of Knockbrogan is appreciable in View 10 in particular, and the roofscape of the estate responds to, and reflects, the topography. Along with the retained vegetation on the southern site boundary, this helps the development to sit comfortably in the landscape.
- Magnitude of change: Low-Medium. The proposed development would be visually exposed due to its ridgeline location. However, due to the complexity of the views, the viewing distance, the arrangement of the buildings and the retained boundary vegetation, the development would not be particularly prominent.

Effect Significance

- Slight neutral. The extension of development along the ridgeline enclosing the town centre is conceptually significant. It represents a new phase of Bandon's development, the expansion and consolidation of the urban area – a plan-led and already established trend of change across the town. Seen from the town centre, such as these locations, this is not inappropriate, and does not necessarily negatively affect visual amenity. The key consideration is whether the development is of suitably high quality design, given the site's exposed location. The photomontages show that the proposed design is appropriate, the built form permeable and responsive to/reflective of the topography, the valuable boundary vegetation retained and supplemented. The development would sit comfortably in the landscape, causing no gain or loss in visual amenity.

Cumulative Effects

- Moderate neutral. The proposed view shows the proposed development in combination with the adjacent permitted developments Ref. 21/4059 and 24/5216 on the western part of Knockbrogan (to the far left of the view). Their cumulative effect is the visible expansion of the urban area onto/over the Knockbrogan ridgeline. This adds an important new element to the Bandon townscape, but causes no significant improvement or disimprovement in visual amenity.

5.8.3.11 Viewpoints 12 – Árdán Na N-Óglach estate

Existing View

- This viewpoint represents the residential neighbourhoods on the south side of Bandon, outside of the town centre, removed from the town centre sensitivities (such as the churches and ACAs), but also from the mixed use Ban Relief Road corridor.

- Árdán Na N-Óglach is similar to many of Bandon's residential estates, being located on a hillside above the town centre in the valley. In the view north from the elevated part of the estate, there are terraced houses to the right and trees to the left framing the view across the steeply sloping estate green. Trees at the far end of the green partly block the view, but Knockbrogan is visible in the distance on the far side of town.
- A residential estate similar to Árdán Na N-Óglach is visible on the distant hillside (to the left), along with a new estate under construction on part of the Knockbrogan ridgeline
- Viewpoint sensitivity: Medium. Residential receptors are sensitive to inappropriate change, but, as a residential estate/setting within the urban environment, there is some tolerance for change of similar type.

Proposed View

- Partially screened by the trees in the foreground, the proposed development would extend along the distant ridgeline to the right of the estate under construction on Knockbrogan. The retained site boundary hedgerows and trees soften the development's presence and help to integrate the buildings into the landscape.
- Magnitude of change: Low-Medium. A combination of screening by the foreground trees, viewing distance, existing development on the ridgeline, and retention of the site boundary vegetation would limit the prominence of the development.

Effect Significance

- Slight neutral. Seen from a similar residential estate similarly positioned on a hill on the far side of the town, the development would cause no significant change in landscape character or visual amenity.

Cumulative Effects

- Moderate neutral. The proposed view shows the proposed development in combination with the adjacent permitted developments (Ref. 21/4059 and 24/5216) under construction on the western part of Knockbrogan. Their cumulative effect is the visible expansion of the urban area onto/over the Knockbrogan ridgeline.

5.8.3.12 Viewpoints 13, 14 – Views from the N71 Bandon Relief Road

Existing Views

- The two views are taken from positions along the N71 Bandon Relief Road, which skirts the town to the south, at similar elevation to Knockbrogan on the far side of the town.
- The Relief Road is lined by a mix of uses, including residential neighbourhoods, schools, retail, office and industrial premises. Visual amenity in the road corridor is mixed.
- In places, such as Viewpoints 13 and 14, views are afforded over the town centre in the valley towards Knockbrogan to the north. The town centre is largely hidden, and the presence of the river is indicated only by a tree line crossing the views left to right. The northern residential neighbourhoods can be seen on the hillside on the far side of town, including the estate under construction in the western part of Knockbrogan, on the ridgeline.
- Viewpoint sensitivity: Low-Medium. This modern, mixed use area of the town (the Relief Road corridor) is not of high visual amenity value, and in places it affords panoramic views of a diverse urban landscape. There is capacity to accommodate change in the views.

Proposed Views

- The proposed development would extend along the distant ridgeline to the right of the existing estate on Knockbrogan. The houses are variously positioned parallel and perpendicular to the ridgeline, creating variety and visual interest.
- The landform of Knockbrogan is appreciable in these views, and the roofscape of the estate responds to, and reflects the topography. Along with the retained vegetation on the southern and eastern site boundaries, this helps the development to sit comfortably in the landscape.
- Magnitude of change: Low-Medium. The proposed development would be visually exposed due to its ridgeline location. However, due to the viewing distance, the complexity of the views, the arrangement of the buildings and the retained boundary vegetation, the development would not be particularly prominent.

Effect Significance

- Slight neutral. Seen from an urban district at similar elevation on the far side of the town, the extension of development along the Knockbrogan ridgeline is not a significant change. There is already an established trend of urban expansion up the northern hillsides. The development would sit comfortably in the landscape, causing no gain or loss in visual amenity.

Cumulative Effects

- Slight neutral. The proposed view shows the proposed development in combination with the adjacent permitted developments (Ref. 21/4059 and 24/5216) under construction in the western part of Knockbrogan. Their cumulative effect is the visible expansion of the urban area onto the Knockbrogan ridgeline. Seen in and from the context of the wider urban area, as part of an established trend of change, this would cause no significant change to the character or visual amenity of the landscape in view.

5.8.3.13 Viewpoint 15 – N71 Scenic Route (R64)

Existing View

- The N71 is designated a Scenic Route specifically for views of Bandon River valley and woodlands. Along the final stretch approaching Bandon, the road is so aligned that it frames a view west towards the site. The site is however hidden from view by the valley topography and dense woodland rising up the valley side.
- The newly constructed greenway parallel to the road is at higher elevation than the road, providing a wider view of the surroundings. The view is taken from this level.
- Viewpoint sensitivity: High. This is a designated Scenic Route and there are few detractors from visual amenity in the surrounding landscape.

Proposed View

- The majority of the proposed development would be hidden from view. Only the roofs of a number of houses, 1km distant, would be discernible on the wooded ridgeline, behind another large house.
- Magnitude of change: Negligible.

Effect Significance

- Not significant neutral. The development would be barely discernible and would cause no significant change to the landscape character, or to visual amenity along this stretch of the road. Importantly, it would have no effect on views of the river or valley woodland, for which the road is designated a Scenic Route.

Table 5- 7 Summary of Potential Visual Effects Assessment

Viewpoint Location	Viewpoint Sensitivity	Visual Effects - CONSTRUCTION PHASE (Temporary)		Visual Effects - OPERATION (Permanent)		Cumulative (with permitted developments Ref. 21/4059 and 24/5216)	
		Magnitude of Change	Significance of Effects	Magnitude of Change	Significance of Effects	Magnitude of Change	Significance of Effects
1. Macroom Road	Low-Medium	Low	Not significant negative	Low	Slight neutral	n/a	n/a
2. Whitethorn Grove	Medium	Low	Not significant negative	Low	Slight neutral	n/a	n/a
3. Cork Road	Low-Medium	Low	Not significant negative	Low	Not significant neutral	High	Significant positive
4. Radharc an Bhaile	Medium	Negligible	Not significant neutral	Negligible	Not significant neutral	n/a	n/a
5. Summerhill Heights	Medium	Negligible	Not significant neutral	Negligible	Not significant neutral	n/a	n/a
6. Knockbrogan Road	Medium	Negligible	Not significant neutral	Negligible	Not significant neutral	n/a	n/a
7. Kilbeg Cemetery and nearby houses	Medium-High	Low	Slight negative	Low	Slight negative	n/a	n/a
8. St Finbarr's Place/Bandon Bridge	Medium-High	Low-Medium	Slight negative	Low-Medium	Slight neutral	Medium	Moderate neutral
9. Glaslyn Road	Low-Medium	Medium	Slight negative	Medium	Moderate neutral	Medum	Moderate neutral
10. St Peter's Church	Medium	Low-Medium	Slight negative	Low-Medium	Slight neutral	Medium	Moderate neutral
11. St Patrick's Church, Cemetery	Medium	Low-Medium	Slight negative	Low-Medium	Slight neutral	Medium	Moderate neutral
12. Árdán Na N-Óglach	Medium	Low-Medium	Slight negative	Low-Medium	Slight neutral	Low-Medium	Slight neutral
13. Casement Road at N71 Bandon Relief Road junction	Low-Medium	Low-Medium	Not significant negative	Low-Medium	Slight neutral	Low Medium	Slight neutral
14. N71 Bandon Relief Road	Low-Medium	Low-Medium	Not significant negative	Low-Medium	Slight neutral	Low Medium	Slight neutral
15. N71 Scenic Route (R64)	High	Negligible	Imperceptible neutral	Negligible	Imperceptible neutral	n/a	n/a

5.8.4 Operational Phase – Landscape Effects

5.8.4.1 Landscape Sensitivity

The landscape sensitivity of the receiving environment is 'medium' (refer to Section 5.8.1.1 for explanation).

5.8.4.2 Magnitude of Landscape Change

Magnitude of change is a factor of the scale and the degree of change imposed on the landscape by a development, with reference to its key elements, features and characteristics.

The magnitude of landscape change that would result from the proposed development can be classified 'medium' (definition (refer to Table 5-2 above): *Change that is moderate in extent, resulting in partial loss or alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that may be prominent but not necessarily substantially uncharacteristic in the context. Such development results in change to the character of the landscape).*

The medium sensitivity classification is based on the following factors:

- With a site area of 7.998 ha and comprised of 212 no. houses and over 1 ha of open space, the proposed development is of moderately large scale/spatial extent.
- Additionally, due to its location on the ridgeline of Knockbrogan, the site is visually exposed - to certain areas - and the development would be visible from some distance across the landscape, particularly from a distance to the south (e.g. Viewpoints 8-14).
- Unusually, due to (a) the local topography and (b) the site's physical separation from the surrounding developments and existing public realm, the development would be less visible from its immediate environs (e.g. Viewpoints 2-6) than from afar.
- In typology and character, the proposed development is in keeping with its local and wider environs. There are existing residential estates of similar type (two storey terraced and semi-detached houses) nearby to the north and south of the site, and across the northern hillsides of Bandon. Additionally, construction is nearing completion on the first phase of development on Knockbrogan, adjacent to the site. The proposed development is designed as an extension of that scheme.

In summary, the local area (Knockbrogan) and the wider northern hillsides are in a process of plan-led urban expansion/consolidation, and the development would contribute to this ongoing landscape change.

5.8.4.3 Significance of Landscape Effects

Measuring the magnitude of change against the landscape sensitivity (refer to Table 5-3 and Figure 5-5), the landscape effects of the development in the operational phase would be of 'moderate' significance (EPA definition of moderate: *An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends*).

The key question is whether the effects can be classified positive, neutral or negative. In this regard:

- The key landscape assets of the site – the external and internal boundary hedgerows, trees and tree groups - would be largely retained and would form the skeleton of the open space network and block structure of the new neighbourhood.
- The ecological function and landscape value (visual amenity and screening) of the hedgerows would be retained, and enhanced by complementary planting. Most notable (among the landscape proposals) are the 'ecological buffers' inside the northern and southern boundaries, and specifically a broad belt of multi-layered woodland planting inside the south west boundary at the interface with the Radharc an Bhaile estate. (This is where the proposed development is closest to existing houses, and on a level above those houses; therefore, additional landscape/visual buffering is required in this area.)
- The proposed species mixes, in the green links/ecological buffers and open spaces, have been selected to support native pollinators and strengthen local ecosystems, with the objective to achieve net biodiversity gain (see p. 25 of the Landscape and Green Infrastructure Report by Simon Ronald Landscape Architects, August 2025).
- The proposed layout and landscape masterplan are thus in accordance with:
  - Specific Objective BD-R-03 of the CCDP, which requires proposals for the site to *"include provision for an overall landscaping plan to assimilate the scheme into the hillside and… include retention of mature trees and boundaries"*.
  - Objective HE-16-21, which states: *"Require the appropriate landscaping and screen planting of proposed developments by using predominantly indigenous/local species and groupings and protecting existing hedgerows".*
  - Objective GI 14-9, which states: *"Discourage proposals necessitating the removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments"*.
- Additionally, the proposal includes a variety of SUDS measures/features, including swales, tree pits and permeable paving. This adds further to the development's potential ecosystem services offer.
- Objective GI 14-9 also requires development to *"Protect skylines and ridgelines from development"*. The residential-zoned site is on a ridgeline. Therefore 'protection of the ridgeline from development' altogether is not realistic. However, by (a) limiting the housing typologies to two storey houses (as opposed to higher density, taller typologies), (b) carefully adjusting the site levels for each house, and (c) retaining and supplementing the site boundary vegetation for screening, the proposal does ensure that the development would sit comfortably and unobtrusively on the ridgeline. This is evidenced by the verified photomontages for viewpoints 8-14.
- The proposed building typologies and design (two storey terraced and semi-detached houses of render, with stone detailing, and pitched slate roofs) were selected for two main reasons: (1) to avoid excessive visibility/ visual impact on the hilltop site, and (2) to reflect the established pattern and character of development in the area. This is in accordance with Objective HE-16-21 of the CCDP, which states: *"Encourage new buildings that respect the character, pattern and tradition of existing places, materials and built forms and that fit appropriately into the landscape".*
- The proposal would have no significant negative effect on any of Bandon's Architectural Conservation Areas or protected structures, including St Patrick's and St Peter's Churches, St Finbarr's Place/Bandon Bridge, etc. The effects on these cultural heritage assets have been assessed (Viewpoints 8, 10, 11), and while the development would be visible from these places, seen in the context of Bandon's complex and expanding urban landscape, its effects would be benign.
- The proposal would have no significant (or any material) negative effect on any identified High Value Landscape, Important View or Prospect, or Scenic Routes as identified in the CCDP (including Scenic Route S64, the only Scenic Route in the vicinity of the site – see Viewpoint 15 in the visual effects assessment).
- The verified photomontages (provided under separate cover), which informed the visual effects assessment, show that the proposed development is designed with consideration and respect to the landscape context (its natural and built elements). The design ensures that the proposed development would assimilate

successfully into the landscape. Seen from both the local and wider environs, it would have predominantly neutral landscape and visual effects. At only one location (Kilbeg Cemetery, Viewpoint 7) would its effect be negative (of 'slight' significance). This would result from the development appearing on the horizon to the west of Kilbeg South, the first visible encroachment of the urban landscape into this area on the eastern outskirts of Bandon. This must be weighed against the positive effects of creating a highly attractive new residential neighbourhood at Knockbrogan, in accordance with the site's zoning and Specific Objective BD-R-03.

In summary, based on the analysis above and the visual effects assessment in Section 5.8.3, the operational phase landscape effects would be of moderate significance, neutral, and direct.

5.8.5 Cumulative Effects

The assessment of the proposed development's landscape and visual effects has taken into consideration the effects of two adjacent permitted developments (Cork Co. Co. Ref. 21/4059 and 24/5216, see Figure 5-20 above) in the western part of Knockbrogan, between the site and the Cork Road. Those two developments are currently under construction, and their landscape and visual effects can already be seen, for example from Viewpoint 3 and Viewpoint 10 (see Figures 5-29, 5-30 below).

The proposed development and the two adjacent permitted developments are complementary. In combination, they would realise a large part of Specific Objective BD-R-03, i.e. the development of a new 'Medium Density A' residential neighbourhood on the pocket of greenfield lands that exists on Knockbrogan within the wider urban footprint of Bandon.

Figure 5-29 A view of the adjacent permitted (now constructed) development from the Cork Road

Figure 5-30 The permitted developments on Knockbrogan, currently under construction, visible from St Peter's Church

The proposed development has been designed to integrate seamlessly with the two neighbouring permissions, and to function as a single, interconnected neighbourhood.

The photomontages for the distant viewpoints to the south (Viewpoints 8-14) show that the three developments' cumulative effect would be the visible expansion of the urban area onto/over the Knockbrogan ridgeline, adding an important new element to the townscape. It is important to note that this change is plan-led, and that it is taking place elsewhere on the northern hills above Bandon town centre. Figure 5-16 above shows a similar expansion onto the ridgeline of Upper Convent Hill to the north west of the town centre.

5.8.6 Summary

5.8.6.1 Likely Visual Effects – Construction Phase

The following Table summarises the identified likely significant visual effects during the construction phase of the proposed development before mitigation measures are applied.

Table 5- 8 Summary of Construction Phase Likely Significant Visual Effects in the absence of mitigation

Viewpoint Location	Viewpoint Sensitivity	Visual Effects - CONSTRUCTION PHASE (Temporary)	
		Magnitude of Change	Significance of Effects
1. Macroom Road	Low-Medium	Low	Not significant negative
2. Whitethorn Grove	Medium	Low	Not significant negative
3. Cork Road	Low-Medium	Low	Not significant negative
4. Radharc an Bhaile	Medium	Negligible	Not significant neutral
5. Summerhill Heights	Medium	Negligible	Not significant neutral
6. Knockbrogan Road	Medium	Negligible	Not significant neutral
7. Kilbeg Cemetery and nearby houses	Medium-High	Low	Slight negative
8. St Finbarr's Place/Bandon Bridge	Medium-High	Low-Medium	Slight negative
9. Glaslyn Road	Low-Medium	Medium	Slight negative
10. St Peter's Church	Medium	Low-Medium	Slight negative
11. St Patrick's Church, Cemetery	Medium	Low-Medium	Slight negative
12. Árdán Na N-Óglach	Medium	Low-Medium	Slight negative
13. Casement Road at N71 Bandon Relief Road junction	Low-Medium	Low-Medium	Not significant negative
14. N71 Bandon Relief Road	Low-Medium	Low-Medium	Not significant negative
15. N71 Scenic Route (R64)	High	Negligible	Imperceptible neutral

5.8.6.2 Likely Landscape Effects – Construction Phase

The likely landscape effects during construction would be of moderate-slight significance, negative, and direct.

5.8.6.3 Likely Visual Effects – Operational Phase

The following Table summarises the identified likely significant visual effects during the operational phase of the proposed development before mitigation measures are applied.

Table 5 9 Summary of Operational Phase Likely Significant Visual Effects in the absence of mitigation

Viewpoint Location	Viewpoint Sensitivity	Visual Effects - OPERATIONAL PHASE (Permanent)	
		Magnitude of Change	Significance of Effects
1. Macroom Road	Low-Medium	Low	Slight neutral
2. Whitethorn Grove	Medium	Low	Slight neutral
3. Cork Road	Low-Medium	Low	Not significant neutral
4. Radharc an Bhaile	Medium	Negligible	Not significant neutral
5. Summerhill Heights	Medium	Negligible	Not significant neutral
6. Knockbrogan Road	Medium	Negligible	Not significant neutral
7. Kilbeg Cemetery and nearby houses	Medium-High	Low	Slight negative
8. St Finbarr's Place/Bandon Bridge	Medium-High	Low-Medium	Slight neutral
9. Glaslyn Road	Low-Medium	Medium	Moderate neutral
10. St Peter's Church	Medium	Low-Medium	Slight neutral
11. St Patrick's Church, Cemetery	Medium	Low-Medium	Slight neutral
12. Árdán Na N-Óglach	Medium	Low-Medium	Slight neutral
13. Casement Road at N71 Bandon Relief Road junction	Low-Medium	Low-Medium	Slight neutral
14. N71 Bandon Relief Road	Low-Medium	Low-Medium	Slight neutral
15. N71 Scenic Route (R64)	High	Negligible	Imperceptible neutral

5.8.6.4 Likely Landscape Effects – Operational Phase

The likely landscape effects during operation would be of moderate significance, neutral, and direct.

5.9 Mitigation Measures

5.9.1 Incorporated Design Mitigation

- The key landscape assets of the site – the external and internal boundary hedgerows, trees and tree groups - would be largely retained, forming the skeleton of the open space network. The ecological function and landscape value (visual amenity and screening) of the hedgerows would thus be retained. The photomontages show that the retained hedgerows and trees would be effective in softening and partially screening the proposed buildings in views from the surroundings.
- The retained vegetation would be supplemented by new planting, most notably the 'ecological buffers' inside the northern and southern boundaries - and specifically a broad belt of woodland planting inside the south west boundary at the interface with the Radharc an Bhaile estate. This is where the proposed development is closest to existing houses, and on a level above those houses; therefore, additional landscape/visual buffering is required in this area.
- The proposed species mixes of the new planting have been selected to support native pollinators and strengthen local ecosystems, with the objective to achieve net biodiversity gain (see p. 25 of the Landscape and Green Infrastructure Report by Simon Ronan Landscape Architects, August 2025).
- The proposed building typologies and design (two storey terraced and semi-detached houses of render, with stone detailing, and pitched slate roofs) were selected for two main reasons: (1) to avoid excessive visibility/visual impact on the hilltop site (compared to denser, taller typologies), and (2) to reflect the established pattern and character of development in the area. This is in accordance with Objective HE-16-21 of the CCDP, which states: *"Encourage new buildings that respect the character, pattern and tradition of existing places, materials and built forms and that fit appropriately into the landscape"*.

5.9.2 Construction Phase Mitigation

The most effective mitigation for the negative landscape and visual effects of construction is site hoarding. However, this is only effective for ground level activity. When buildings under construction rise above ground level they are exposed and unsightly, as are the materials stockpiles, vehicles, etc. typical of a construction site. Some negative effects are therefore unavoidable in the construction phase. Nonetheless, to minimise the effects, it is recommended that site hoarding be erected around the site – where this is compatible with the protection of the boundary vegetation.

Good practice in site management can reduce unnecessary visual impacts. These may include (a) considered layout of the construction site with regard to the most sensitive visual receptors, (b) dust control (e.g. water sprays to avoid dust plumes; spraying of vehicles before site departure to avoid dirtying roads), (c) waste control (e.g. netting/covering of storage bins/areas; regular site inspection for litter), and (d) considered positioning of security lighting.

A Construction Environmental Management Plan (CEMP) has been prepared and submitted with the LRD application. The CEMP includes measures – or a framework for the agreement of measures - such as those identified above.

A Tree Protection Plan and Tree Appraisal and Arboricultural Assessment have been prepared by GEOTREE and submitted with the LRD application. These include measures for the protection of the site hedgerows and trees during construction.

5.9.3 Operational Phase Mitigation

The design of the proposed development incorporates all necessary mitigation measures for operational phase impacts. No further operational phase mitigation measures are required.

5.10 Residual Impact Assessment

5.10.1.1 Residual Visual Effects – Construction Phase

The following Table summarises the identified residual visual effects during the construction phase of the proposed development.

Table 5 10 Summary of Construction Phase Residual Visual Effects

Viewpoint Location	Viewpoint Sensitivity	Visual Effects - CONSTRUCTION PHASE (Temporary)	
		Magnitude of Change	Significance of Effects
1. Macroom Road	Low-Medium	Low	Not significant negative
2. Whitethorn Grove	Medium	Low	Not significant negative
3. Cork Road	Low-Medium	Low	Not significant negative
4. Radharc an Bhaile	Medium	Negligible	Not significant neutral
5. Summerhill Heights	Medium	Negligible	Not significant neutral
6. Knockbrogan Road	Medium	Negligible	Not significant neutral
7. Kilbeg Cemetery and nearby houses	Medium-High	Low	Slight negative
8. St Finbarr's Place/Bandon Bridge	Medium-High	Low-Medium	Slight negative
9. Glaslyn Road	Low-Medium	Medium	Slight negative
10. St Peter's Church	Medium	Low-Medium	Slight negative
11. St Patrick's Church, Cemetery	Medium	Low-Medium	Slight negative
Árdán Na N-Óglach	Medium	Low-Medium	Slight negative
Casement Road at N71 Bandon Relief Road junction	Low-Medium	Low-Medium	Not significant negative
N71 Bandon Relief Road	Low-Medium	Low-Medium	Not significant negative
N71 Scenic Route (R64)	High	Negligible	Imperceptible neutral

5.10.1.2 Residual Landscape Effects – Construction Phase

The residual landscape effects during construction would be of moderate-slight significance, negative, and direct.

5.10.1.3 Residual Visual Effects – Operational Phase

The following Table summarises the residual visual effects during the operational phase of the proposed development after mitigation measures are applied.

Table 5 11 Summary of Operational Phase Residual Visual Effects

Viewpoint Location	Viewpoint Sensitivity	Visual Effects - OPERATIONAL PHASE (Permanent)	
		Magnitude of Change	Significance of Effects
1.Macroom Road	Low-Medium	Low	Slight neutral
2.Whitethorn Grove	Medium	Low	Slight neutral
3.Cork Road	Low-Medium	Low	Not significant neutral
4.Radharc an Bhaile	Medium	Negligible	Not significant neutral
5.Summerhill Heights	Mediumw	Negligible	Not significant neutral
6.Knockbrogan Road	Medium	Negligible	Not significant neutral
7.Kilbeg Cemetery and nearby houses	Medium-High	Low	Slight negative
8.St Finbarr's Place/Bandon Bridge	Medium-High	Low-Medium	Slight neutral
9.Glaslyn Road	Low-Medium	Medium	Moderate neutral
10.St Peter's Church	Medium	Low-Medium	Slight neutral
11.St Patrick's Church, Cemetery	Medium	Low-Medium	Slight neutral
12.Árdán Na N-Óglach	Medium	Low-Medium	Slight neutral
13.Casement Road at N71 Bandon Relief Road junction	Low-Medium	Low-Medium	Slight neutral
14.N71 Bandon Relief Road	Low-Medium	Low-Medium	Slight neutral
15. N71 Scenic Route (R64)	High	Negligible	Imperceptible neutral

5.10.1.4 Residual Landscape Effects – Operational Phase

The residual landscape effects during operation would be of moderate significance, neutral, and direct.

5.10.2 Cumulative Residual Effects

The assessment of the proposed development's landscape and visual effects has taken into consideration the effects of two adjacent permitted developments (Cork Co. Co. Ref. 21/4059 and 24/5216, see Figure 5-20 above) in the western part of Knockbrogan, between the site and the Cork Road. Those two developments are currently under construction, and their landscape and visual effects can already be seen, for example from Viewpoint 3 and Viewpoint 10 (see Figures 5-29, 5-30 above).

The proposed development and the two adjacent permitted developments are complementary. In combination, they would realise a large part of Specific Objective BD-R-03, i.e. the development of a new 'Medium Density A' residential neighbourhood on the pocket of greenfield lands that exists on Knockbrogan within the wider urban footprint of Bandon. The photomontages for the distant viewpoints to the south (Viewpoints 8-14) show that the three developments' cumulative effect would be the visible expansion of the urban area onto/over the Knockbrogan ridgeline. This change is plan-led, and it is taking place elsewhere on the northern hills above Bandon town centre. No mitigation of the effects is required.

5.11 Risk of Major Accidents or Disasters

This is not relevant to the topic of landscape and visual amenity.

5.12 Worst Case Scenario

No worst case scenario of landscape or visual effects has been identified.

5.13 Interactions

5.13.1 Landscape/Visual and Population and Human Health (Noise and Dust Emissions)

During the construction stage, there is potential for negative landscape and visual effects of construction to combine with noise and dust emissions from the construction site to negatively impact the residential amenity of residential neighbourhoods near the site. The receptors most likely to experience such impacts are the occupants of the nearest houses to the site in the Radharc an Bhaile, Whitethorn Grove and Ard an Chuilinn estates.

5.13.2 Landscape/Visual and Population and Human Health

The proposed development would deliver a high quality new residential neighbourhood within walking distance of the town centre, and with good access to existing and planned/future schools, retail, employment, open space and other land uses and amenities provided by the self-sustaining town of Bandon. The related change to the landscape character, i.e. the planned expansion and consolidation of the urban area in Knockbrogan, would have significant positive population and human health benefits (by providing homes offering a high level of residential amenities and encouraging Active Travel).

5.13.3 Landscape/Visual and Biodiversity

The proposed development retains key landscape elements/features on the site, specifically the hedgerows, hedgerow trees and tree groups on the site's northern, eastern and southern boundaries (and some of the internal boundary hedgerows). As well as being of landscape and visual amenity value, these are important habitat features, and their retention and protection (along with extensive new planting throughout the new neighbourhood), would have biodiversity benefits, integrating the development into the local green infrastructure network.

5.14 Monitoring

A key aspect of the proposed development is the retention of hedgerows, a number of hedgerow trees and tree groups on the northern, eastern and southern site boundaries, as well as sections of hedgerow along internal field boundaries.

During the construction phase, this vegetation would be vulnerable to damage caused by construction activity. It is therefore recommended that (1) the measures recommended by the arboricultural consultant for the protection of this vegetation be monitored throughout construction (to ensure its structural integrity and efficacy), and (2) that the health of the retained vegetation be monitored throughout construction (to ensure the efficacy of the protection measures and inform adjustment to the measures if required).

5.15 Summary of Mitigation and Monitoring

The following Table summarises the Construction Phase mitigation and monitoring measures.

Table 5 12 Summary of Construction Phase Mitigation and Monitoring

Likely Significant Effect	Mitigation	Monitoring
Negative visual effects of construction activity on site	Site hoarding	Regular inspection and maintenance of hoarding
Possible unplanned damage/loss of boundary hedgerow, hedgerow trees and tree groups during construction	Hedgerow and tree protection measures recommended by Arboricultural consultant	Monitoring of the structural integrity and efficacy of hedgerow and tree protection measures throughout construction phase
Possible unplanned damage/loss of boundary hedgerow, hedgerow trees and tree groups during construction	Hedgerow and tree protection measures recommended by Arboricultural consultant	Monitoring of the health of the retained hedgerows and trees throughout construction phase

No mitigation or monitoring measures are required or recommended for landscape or visual impacts in the operational phase.

5.16 Conclusion

Based on the assessment in this chapter, the proposed development can be considered an appropriate intervention in the landscape. The proposal demonstrates consideration and respect for the natural and built elements and characteristics of the landscape context, and no significant negative landscape or visual effects have been identified. The development is in accordance with the CCDP's Specific Objective BD-R-03 for the Knockbrogan area, and would contribute to an established, plan-led trend of landscape change in the local and wider context, i.e. the expansion and consolidation of the residential neighbourhoods on the northern hills above Bandon town centre.

5.17 References and Sources

- *Architectural Design Statemen*t, Brian O'Kennedy & Associates Engineers and Architects, September 2025.
- *Cork County Development Plan* 2022-2028, Cork County Council.
- *Guidelines for Landscape and Visual Impact Assessment*, 3rd edition, 2013 (GLVIA), published by the Landscape Institute.
- *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*, 2022, published by the EPA.
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*, 2018, published by the Department of Housing, Planning and Local Government.
- *Landscape and Green Infrastructure Report*, Simon Ronan Landscape Architects, August 2025.
- *Urban Design Manual – A Best Practice Guide, Department of Environment, Heritage and Local Government*, 2009.

CHAPTER SIX

MATERIAL ASSETS: TRAFFIC & TRANSPORT

RECEIVED: 03/11/2025

CHAPTER SIX

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6.1 Introduction

This chapter of the EIAR has been prepared to assess the potential impact of the proposed development in terms of traffic and transport. The chapter provides the following:

- A detailed and robust assessment of the potential impact of the proposed development on the local road network both during the short-term construction phase and long-term operational phase; and
- Outlines mitigation measures to ensure significant effects are minimised or avoided.

The assessment of the traffic and transport section has been prepared Hegsons Design Consultancy Ltd, who have extensive experience with a wide range of Transport Statements, Transport Assessments, Mobility Management Plans and Development Proposals throughout Ireland and the United Kingdom.

This document should be read in conjunction with the Transport Assessment, Mobility Management Plan and DMURS Quality Audit which also accompanies the planning application.

6.2 Expertise and Qualifications

Author of this chapter, Ken Hegarty is a Director at Hegsons Design Consultancy Ltd. He has extensive experience with a wide range of Transport Statements, Transport Assessments, Mobility Management Plans and Development Proposals throughout Ireland and the United Kingdom.

Ken Hegarty holds an Honors Bachelor Degree of Engineering (BE Civil and Environmental Engineering, UCC 1996) and a Master of Engineering Science (MEngSc Transport Engineering, UCC 1997). He is also a Chartered Engineer with the Institution of Engineers of Ireland (CEng MIEI) and a Member of the Institute of Highways and Transport (MIHT). Ken has involved in the preparation of Transport Assessments and EIARs for the following projects:

- Phase 2 of the Castlerock Knockbrogan Scale Residential Development, Bandon Co Cork.
- Cloheen Large Scale Residential Development, Clonakilty, Co. Cork.
- Sion Road Residential Development (SHD) Kilkenny
- Broomfield Large Scale Residential Development, Midelton, Co Cork.

6.3 Proposed Development

The proposed development will consist of a residential development consisting of the development of 212 No. residential units and all associated ancillary developments works.

The subject site is Phase 3 of a larger development–known as Blossom Hill Estate. Phase 1 of the estate is currently being completed while Phase 2 is now commencing. All vehicular access and services serving Phase 3 will connect directly with the corresponding roads and services in Phase 2, which in turn pass through Phase 1 and connect to the public roadway, Old Cork Road (L-2040).

The subject site is part of one of the remaining patches of farmland within the urban area north of the town centre. This area, Knockbrogan, is identified as Specific Objective BD-R-03 in the CCoDP. Its residential zoning (Cork County Development Plan - BD-R-03) recognises its strategic location close to the centre, close to existing and future business, employment and industrial uses, and to a variety of urban amenities including green infrastructure.

6.3.1 Aspects Relevant to this Assessment

Car Parking Provision

Surface level car parking spaces are to be provided within the proposed development. It is proposed to provide a total of 276 car parking spaces on site (256 resident and 20 visitor parking spaces).

Based on the Cork County Development Plan 2022-2028, car parking standards for new development (maximum standards) as extracted from Table 12.6 are as follows:

• Dwelling Houses: 2 car parking spaces per unit

A total of 172 No. dwellings in this proposal has 2 designated private parking space provided directly in front / close to their dwelling. Each dwelling will include an EV charge point directly outside their dwelling. The remaining 42 No. dwellings (3-bed end terrace & 2 bed mid-terrace dwellings) have 1 designated private parking spaces provided. In addition, a total of 20 No. visitor parking spaces are proposed within the scheme.

The Cork County Development Plan 2022-2028 also indicates the following:

'A reduced car parking provision may be acceptable where the planning authority are satisfied that good public transport links are already available or planned and/or a Transport Mobility Plan for the development demonstrates that a high percentage of modal shift in favour of the sustainable modes will be achieved through the development.'

National policy seeks to reduce car use and a reduction in car parking provision will aid this policy. There is excellent bicycle and pedestrian provision within and to / from the site and this will further encourage the use of more sustainable modes of transport.

Cycle Parking Provision

Secure cycle parking spaces will be accommodated in a convenient place at each dwellinghouse, and it will be either integral to the main building or in a secure purpose shared or individual built cycle store that also accommodates panniers and wet weather gear.

Either way, it is essential that cycling is as easy and convenient as possible: putting cycles in storage units that are complex or difficult to access, or at the rear of the property would undermine prospects for cycling taking a significant modal share. It is anticipated that this will increase the attractiveness of cycling as a mode of transport for visitors and residents of the proposed development.

Based on the Cork County Development Plan 2022-2028, cycle parking standards for new development (maximum standards) as extracted from Table 12.6 are as follows:

- Dwelling Houses: 1 long stay parking space per unit
  & 1 short stay (visitor) parking space per 5 units

The development as proposed provides a minimum of 214 secure bicycle parking spaces within the various dwellings and a further 48 public / visitor spaces .

The provision of additional cycle parking spaces over and above the County Development Plan standards will enhance the sustainable transport credentials of the proposed development and will encourage cycling as a key mode of travel within the wider town area.

Vehicular Access Arrangements

The existing access to the site is via the L-2040 Old Cork Road and through the Phase 1 residential development (which is under construction) and the planning Phase 2 residential development.

The permitted and completed access off the L2040 Old Cork Road takes the form of priority junction and caters for all vehicular, pedestrian and cycle movements to and from the proposed development. The proposed access junctions will have adequate junction radii provided either side to accommodate general traffic movements and deliveries and they will be able to enter and egress the development in a forward gear so that no reversing onto the public road will be experienced.

Internal Site Layout & Access Arrangement

All new roads layouts were designed in accordance with the Design Manual for Urban Roads and Streets 2019 (DMURS). Policy 4.1 of the Compact Growth Guidelines also requires that planning authorities implement the principles, approaches and standards set out in DMURS, as part of an integrated approach to quality urban design and placemaking.

Objective No. BD-X-01 in the Cork County Development Plan proposed the provision of a shared-use route connecting the R589 Macroom Road and the L-2040 Old Cork Road. This would substantially reduce walking journey times to areas in close proximity to the subject site if developed in the future. As already indicated, within the proposed development, walking and cycling facilities are proposed along the main access road and residential streets to provide an environment that is both safe and encourage use of sustainable modes of transport.

6.4 Methodology

A Traffic and Transportation Assessment (TTA) has been prepared in accordance with the NRA's 2014 publication "Traffic and Transport Assessment Guidelines" and the "Guidelines for Traffic Impact Assessments" as published by the Institution of Highways & Transportation U.K. in 1994. The scope of the study has been agreed with Cork County Council's Traffic & Transportation Department. The purpose of a TTA is to assess the potential traffic impact of a development on the existing road network and propose any necessary mitigation measures to best accommodate the expected traffic volumes generated by the proposed development. It is also a requirement to ensure that proposals promote more efficient use of investment in transportation infrastructure, reduce travel demand and promote road-safety.

Key parameters relating to the traffic modelling carried out included: junctions to be assessed, trip generation, modal shift targets, trip distribution, and assessment years.

6.4.1 Relevant Legislation & Guidance

This EIAR Transportation Chapter has been prepared in line with assumptions adopted within the Traffic and Transport Assessment and the relevant EIAR guidance documents, as outlined below.

This chapter has been prepared with due regard to following guidelines:

- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning & Local Government, 2018);
- Guidelines on the Information to be contained in Environmental Impact Assessment reports (EPA, 2022);
- Institute of Environmental Management and Assessment (IEMA) Guideline: 'Environmental Assessment of Traffic and Movement (IEMA, 2023);
- Cork County Development Plan (2022 – 2028);
- Cork County Council's Design Guide, 'Making Places: A Design Guide for Residential Development';
- Project Ireland 2040 – National Planning Framework;
- Transport Infrastructure Ireland's (TII's) Traffic & Transport Assessment Guidelines (2014);
- Design Manual for Urban Roads and Streets (DMURS, updated 2019);
- National Cycle Manual (NTA, 2023);
- Sustainable Recreational Development in urban areas (2009);
- Smarter Travel: A Sustainable Transport Future, 2009 – 2020;
- TII Publications PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections May 2019
- The Department of Transport, Tourism and Sport (DTTAS) and the Department of Environment, Community and Local Government (DoECLG) Design Manual for Urban Roads and Streets (DMURS) March 2013; and
- The TII NRA Road Safety Audit HD 19/15 March 2015.

6.4.2 Site Surveys/Investigations

Site observations and traffic counts will be undertaken within the study area to determine the level of traffic using the road network proximate to the subject site. Peak hour traffic flows (12-hour traffic survey: 7am – 7pm) have been derived from manual traffic counts undertaken on Tuesday 29th April 2025 and a week of ATC data (seven-day surveys) were undertaken between Tuesday 29th April and Monday 5th May 2025 inclusive (typical weekday and bank holiday weekend traffic). Observations were also made in relation to the traffic flow along the road for the same time periods.

6.4.3 Consultation

Section 247 Pre-Application meetings have been held with Cork County Council (CCC) on 16th April 2025. A Section 32B meeting was held with representatives of Cork County Council on 9th July 2025.

Specific information requirements and issues raised by Cork County Council (CCC) in their pre-planning Large Scale Residential Development Opinion issued 6th August 2025, in relation to the proposed LRD at Knockbrogan, Bandon, Co. Cork comprising the construction of 212 units, and all associated site development works, have been subsequently addressed.

EIA scoping consultation requests were issued and responses received, and these have been taken into consideration in the production of this Traffic and Transport Chapter.

6.5 Difficulties Encountered

There were no major limitations and difficulties encountered in compiling the required information for preparation of the report.

6.6 Baseline Environment

6.6.1 Site Location

The subject site is located in Knockbrogan, Bandon Co. Cork and is situated off the Old Cork Road (L-2040), approximately 500m north of Bandon Town Bridge.

The site is bounded to the south and north by the residential areas Radharc Ni Bhaile and Ard Na Chuilinn. The subject application is Phase 3 of a larger development–known as Blossom Hill Estate and is bound by Phase 1 of the estate is (currently being completed) and Phase 2 (construction now commencing) to the west.

To the southeast and east of the site, between the site and Knockbrogan Road, is an area of farmland of similar character to the site. The CCoDP identifies these lands Special Policy Area BD-X-03, Knockbrogan Expansion Area, and specifies that their development should include an education campus with primary and secondary schools. It also requires that the lands' development should provide for pedestrian and cycle links to the subject site to the west.

All vehicular access serving Phase 3 will connect directly to the Old Cork Road (L-2040) via the roads serving the permitted Phase 1 and permitted Phase 2.

6.6.2 Transport Accessibility Road Network Infrastructure

The N71 is situation approximately 700m south of the subject site. The N71 is a National Road which runs from Cork to Skibbereen and is single carriageway road. The road is approximately 7.5-8.0m wide and is subject to a 50kph speed limit within the town centre.

The R589 runs in east-west direction just north for the subject site and provides a link between Brinny / Crossbarry to the north and Bandon Town Centre. The road is single carriageway and is subject to a 50kph speed limit.

The R589 / L-2040 junction, Knockbrogan Crossroad, is priority-controlled junction with footpaths provided on both side of the road. A formal crossing facility is provided to the north of the junction.

The L-2040 Old Cork Road is a two-way single carriageway road with a typical straight horizontal alignment and steep vertical alignment with gradient rising as it continues north. The road is traffic calmed along its route and is subject to a 50kmph speed limit The site is located within an urban / semi urban area with inconsistent footpath provisions along its length.

Existing Access

Existing access to the site is via the L-2040 Old Cork Road. The western section of the access road has been built as part of Phases 1 and 2 residential developments (which are under construction).

The site is currently used as agricultural land and generates limited, if any, vehicle trips daily. No observation was made of other vehicles entering or exiting the site during the site visits. The analysis will therefore not include any existing traffic associated with the subject sites current land use.

6.6.3 Public Transport & Site Accessibility

Public Transport

The closest bus stops to the development are located at Glasslynn Road, approximately 750m (15 minutes' walk) from the proposed development.

Bus Eireann operate several rural inter-urban bus routes which pass through Bandon, linking Bandon to Cork City and other towns in West Cork. There are also a several local school bus operators in the town. Bus routes include:

- 236 (Cork – Dunmanway – Bantry – Glengarriff – Castletownbere)
  Service operates 9 times a day.
- 237 (Cork – Clonakilty– Skibbereen – Goleen);
  Service operates 8 times a day; and
- 239 (Cork – Bandon – Courtmacsherry – Bulterstown).
  Service operates 8 times a day.

At present, there is no scheduled bus service operating to the north of the town centre.

Existing Pedestrian and Cycle Facilities

The Government's sustainable development strategy, Sustainable Development – A Strategy for Ireland, identifies the increased provision of safer facilities for pedestrians and cyclists, including the provision of dedicated cycle lanes as a key priority. In addition, Smarter Travel: A Sustainable Transport Future 2009 – 2020, sets out as some of its key goals that future population and employment growth will predominantly take place in sustainable compact forms, that the future extent of the total share of car commuting will drop from 65% to 45% and that alternatives such as walking, cycling and public transport will be supported and provided to the extent that these will rise to 55% of total commuter journeys to work.

A comprehensive walking and cycling strategy forms part of the Bandon Transport and Public Realm Enhancement Plan (TPREP) and this includes a focus on promoting green modes for school trips by delivering a series of traffic

calming and pedestrian enhancement measures at schools, improved bus drop-off facilities and dedicated drop-off and parking measures. The Plan carries forward amenity walkways in previous Plans and includes an objective to support the provision of a historic town wall trail as a further amenity and tourism resource within the future development of the town.

Most of the main roads within Bandon have footways on at least one side of the road. Pedestrian crossing facilities are integrated into the existing road network by way of the uncontrolled crossings.

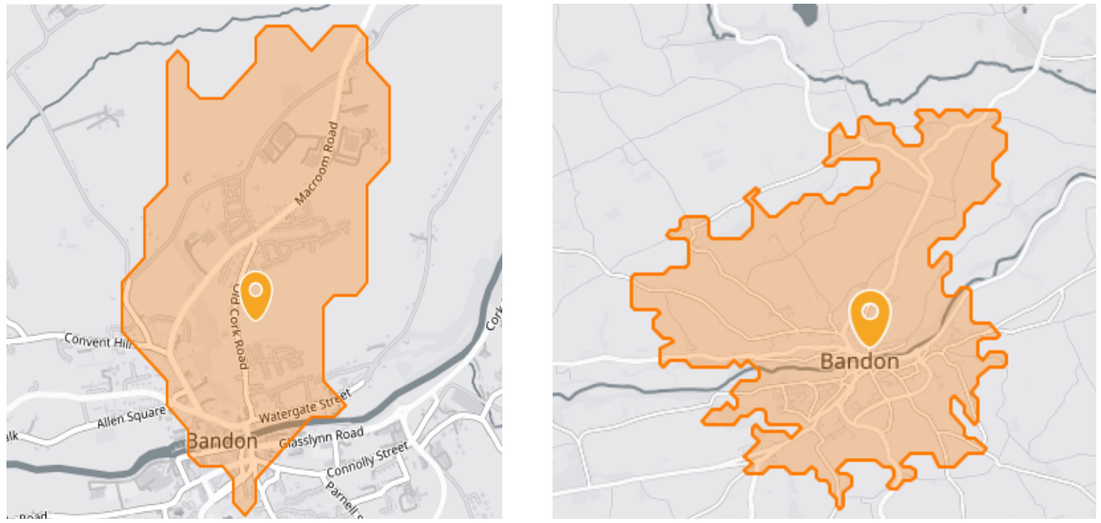
There are adequate footpaths provided or proposed along the R589 Macroom Road and L-2040 Old Cork Road and on the adjoining road network to accommodate the current pedestrian demand. New 2.0m footpaths are being provided alongside the L-2040 as part of the recently granted and proposed residential developments. It is also proposed to provide a zebra crossing on the L-2040 Old Cork Road to enhance connectivity between the existing footpaths on either side of the road.

It is recognised that walking and cycling are the most important mode at the local level, offering the greatest potential to replace short, door-to-door car trips, particularly those around 10-15 minutes cycle time (2-3km) and 30-minute walking time (4-5km) respectively.

Walking / wheeling and cycling isochrone plans have been produced to identify the proximity of the subject site to the surrounding area. Figure 6-1 illustrates the isochrone plan for the area with walking and cycling (15 minutes) distance to the subject site. These maps show access can be achieved to local facilities, rail station, schools and nurseries.

6.6.4 Modal split (Census 2022)

To establish the existing mode-share for the study area, a review of the mode share data from the 2022 census was undertaken for Bandon. Table 6-1 outlines the share of each mode for all travel to work from Bandon.



Source: Created with TravelTime API: http://www.traveltimeplatform.com/

Figure 6 1: Pedestrian (Left) and Cycle (Right) 15-minute isochrone plan for the subject site

Table 6 1: 2022 Census Modal Split

Mode of Travel	Bandon Modal Split (%)
On Foot	10.0%
Bicycle	1.0%
Bus, Minibus or coach	2.0%
Train, DART or LUAS	0.0%
Motorcycle or scooter	0.0%
Car Driver	60.0%
Car Passenger	6.0%
Van	6.0%
Work Mainly form Home	9.0%
Other / Not Stated	6.0%

Source: CSO Census 2022 / www.data.cso.ie

Analysis indicates that, in terms of car / van driver and car passenger mode shares (72.0%) are broadly in line with County averages. These high car mode shares are reflective of the dispersed nature of residential developments and their distance from commercial, educational and employment centres. A modal spilt of approximately 13.0% is recorded for walking, cycling and public transport use.

6.6.5 Current Traffic Movements

Baseline Traffic Conditions

Site observations and traffic counts will be undertaken within the study area, as illustrated in Figure 2.2, to determine the level of traffic using the road network in close proximity to the subject site.

Peak hour traffic flows (12-hour traffic survey: 7am – 7pm) have been derived from manual traffic counts undertaken on Tuesday 29th April 2025 at the following locations:

- Location No. 1 – R589 Macroom Road
- Location No. 2 – R586 North Main Street / Cork Road / Watergate
- Location No. 3 – R603 St Finbarr Place / Glasslyn Road
- Location No. 4 – R603 St Finbarr Place / Oliver Plunkett Street
- Location No. 5 – R586 North Main St / R589 Killbrogan Hill
- Location No. 6 – R589 Killbrogan Hill / L-2023 The Shambles
- Location No. 7 – R586 North Main Street / L-2023 The Shambles
- Location No. 8 – R589 Killbrogan Hill / Convent Hill / R589 Macroom Road
- Location No. 9 – N71 Roundabout / Bandon By-Pass (Roundabout)

A week of ATC data (7 day surveys) were undertaken between Tuesday 29th April and Monday 5th May 2025 inclusive (typical weekday and bank holiday weekend traffic) at the following locations:

- Location No. 1 – R589 Macroom Road
- Location No. 2 – Cork Road
- Location No. 3 – Glasslyn Road
- Location No. 4 – R589 Macroom Road

Observations were also made in relation to the traffic flow along the road for the same time periods.

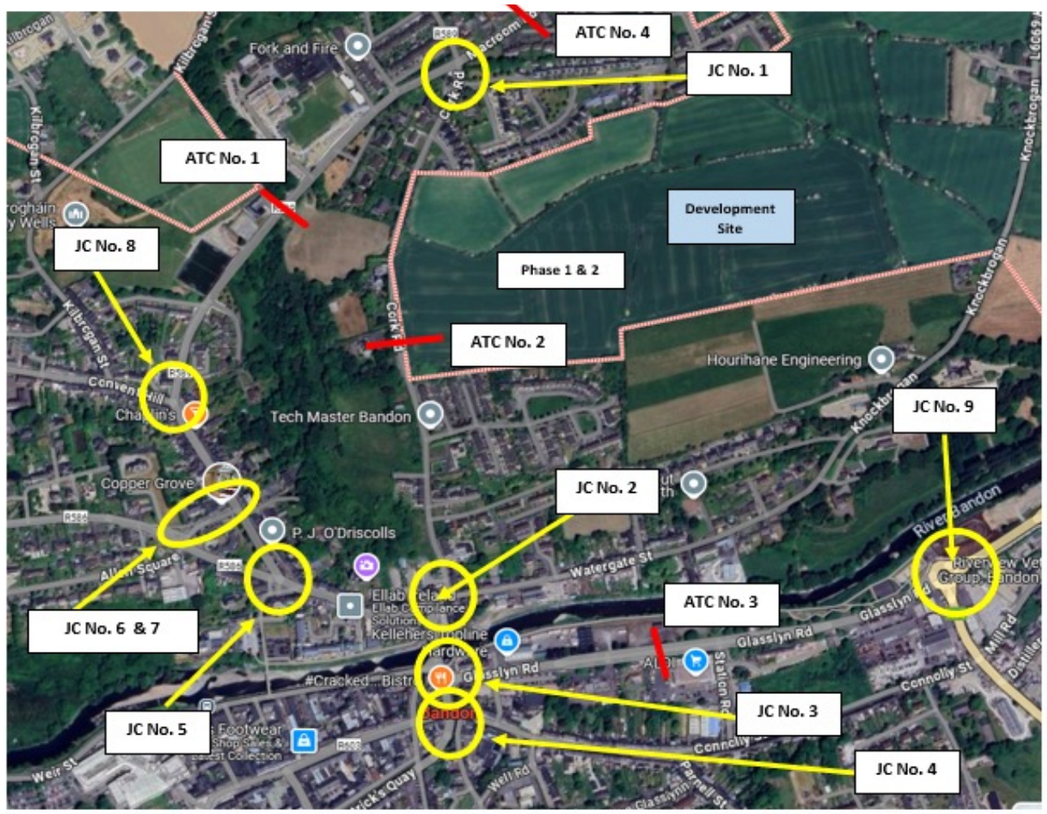


Figure 6 2: Location of Traffic Surveys – April / May 2025

Surveyed AM and PM peak hour traffic flows were converted into AADT using a factor calculated based on information gathered from the ATC counter and in accordance with PE-PAG-02039 TII Publications Project Appraisal Guidelines for National Roads Unit 16.1 - Expansion Factors for Short Period Traffic Counts, October 2016. Table 6-2 presents the calculated Base 2025 AADTs for each of the junctions shown in Figure 6-2.

Table 6 2: 2025 Base AADT

Junction Ref.	Description	Base 2025 AADT (Two-way vehicles through the Junctions)
1	R589 Macroom Road	10,852 vehs
2	R586 North Main Street / Cork Road / Watergate	16,276 vehs
3	R603 St Finbarr Place / Glasslyn Road	15,623 vehs
4	R603 St Finbarr Place / Oliver Plunkett Street	12,596 vehs
5	R586 North Main St / R589 Killbrogan Hill	11,738 vehs
6	R589 Killbrogan Hill / L-2023 The Shambles	7,964 vehs
7	R586 North Main Street / L-2023 The Shambles	10,111 vehs
8	R589 Killbrogan Hill / Convent Hill / R589 Macroom Road	11,013 vehs
9	N71 Roundabout / Bandon By-Pass (Roundabout)	16,353 vehs

6.6.6 Road Safety

A Stage 1 / 2 Road Safety Audit will be prepared to support the planning submission and the safety implication in the audit will be incorporated into the internal site layout.

The Road Safety Audit was carried out in the context of the procedures provided in the relevant sections of the TII Road Safety Audit GE-STY-01024 December 2017 and TII Road Safety Audit Guidelines GE-STY-01027 December 2017; and in accordance with the DoTTS Design Manual for Urban Roads and Streets (DMURS).

As part of the planning submission a DMURS Compliance Statement will be prepared for the proposed residential development. The DMURS Compliance Statement will be prepared in order to outline the design compliance with best practice in terms of operation and safety.

6.6.7 Future Infrastructural Improvement

As part of the various proposed works in the area, a number of road improvement schemes are proposed and considered for implementation into the overall scheme design.

L-2040 Old Cork Road

As part of the proposed works for Phase 1 of the residential development (Planning Ref: 21/4059), it was proposed to partially widen the L-2040 Old Cork Road and provide footpaths to connect with existing footpaths to the north and south. These works are on-going. A similar partial widening of the road and footpath provision was proposed under the planning application for 77 No. residential units and associated creche development, just north of the subject site (Planning Ref: 23/6540).

Kilbrogan Crossroads

As outlined under Planning Application Ref: 23/6540 for the development of 77 No. residential units, creche and associated infrastructure just north of the subject site, a proposal to enhance the sightline visibility at the Kilbrogan Crossroads was suggested. The proposal to enhance the visibility through lining and realignment of kerbing. As this is a current issue for users of the junction, any improvements will enhance safety for all existing residents and road users in the area.

Old Cork Road / Watergate Street / North Main Street Junction

As outlined under Planning Application Ref: 23/6540 for the development of 77 No. residential units, creche and associated infrastructure just north of the subject site, a proposal to reassign the priority at the Old Cork Road / Watergate junction was proposed in Section 5.4 of the Sweco Traffic Assessment – December 2023. This design change for the junction is supported by this application along with any traffic calming and road marking / signage that would be required.

Wider Road Network Improvement Works

The North Bandon Connectivity and Access Corridor (Objective No. BD-U-02 in the Cork County Development Plan) will provide a strategic transports link to facilitate development these lands while also reducing traffic flows within the town and at key junctions.

The corridor will facilitate the improvement of pedestrian and cyclist movements and accessibility within the town centre and the removal of heavy goods vehicles, except for deliveries and public transport.

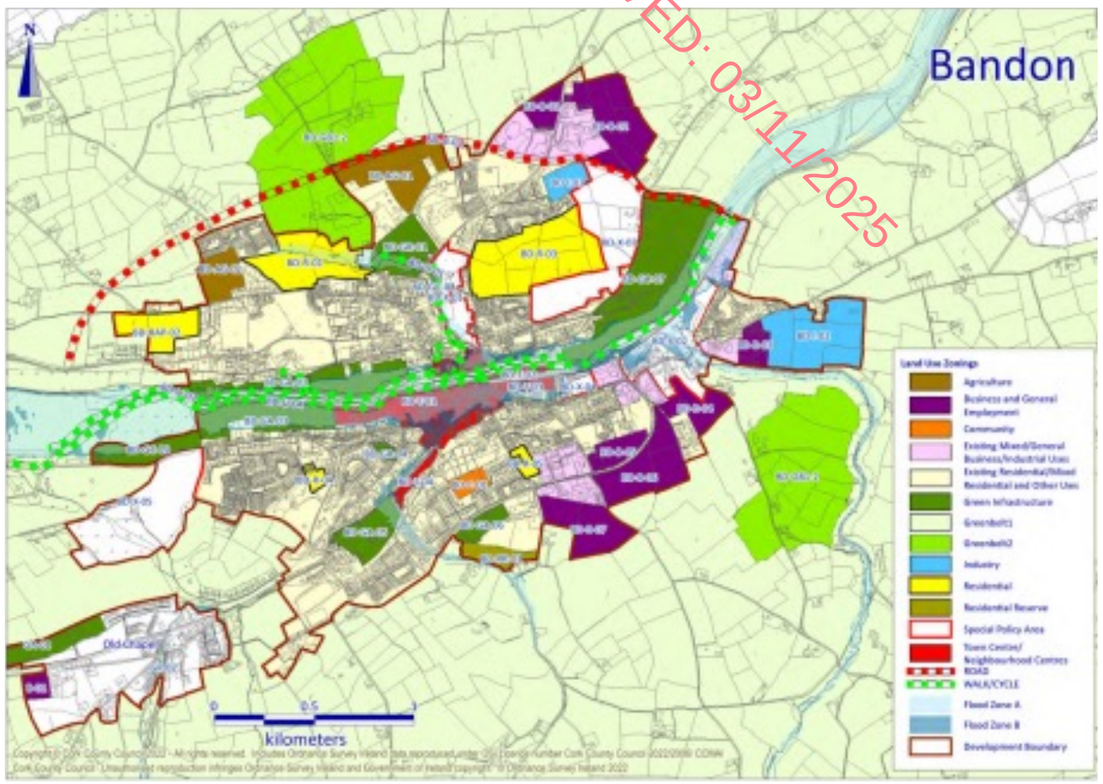


Figure 6 3: Alignment of North Bandon Connectivity and Access

6.7 The 'Do Nothing' Scenario

The local roads network has been assessed for the Do-Nothing Scenario and is presented as the 'Without Development' results for the modelled junctions. The results tables generated by the Junctions Picady & Arcady traffic modelling packages have been constructed to make it easy to make a direct comparison between the with/ without scenarios for each of the years and peak periods.

If the proposed development does not proceed there would be no additional demand or loading on the existing road network other than the naturally growing baseline traffic figures on the existing road network.

6.8 Potential Significant Effects

As part of this application a Construction Environmental Management Plan (CEMP) has been developed which includes directions for a Construction Stage Traffic Management Plan. This traffic management plan will identify the optimum route and times for construction access to the site.

From a junction capacity assessment perspective, the operational phase of the scheme will generate more traffic during the peak traffic periods than the construction stage. Operational phase junction models therefore present a worst-case scenario in terms of impact for the modelled network.

From a junction capacity assessment perspective, the operational phase of the scheme will generate more traffic during the peak traffic periods than the construction stage. Operational phase junction models therefore present a worst-case scenario in terms of impact for the modelled network.

6.8.1 Construction Phase

The construction phase of the development will generate a certain amount of activity on the site. The general activities on site are likely to generate air and noise emissions and traffic movements. Alongside these general activities there will also be an amount of construction waste generated. The excavation of foundations and trenches for ductwork and sewers may require the removal of some rock underlying the site.

The requirement to raise ground levels to facilitate the construction of the gravity drainage strives will ensure that most of the excavated material will be re-used on site and therefore minimise movements of earthworks vehicles out of the site.

It is anticipated that the overall construction programme will commence in 2026 and take up to approximately 60 months to complete based on the phasing plan. It is proposed that Construction works will be carried out between the hours of 07:00 and 19:00 from Monday to Friday and 08:00 and 16:00 on Saturdays.

No construction works will be carried out on Sundays or Bank Holidays, without the specific agreement of Cork County Council and workings hours will be confirmed by Cork County Council.

Longer working days can occur when there is a planned concrete pour. If extended working hours are required, these will be agreed in advance with the planning authority.

Establishment of a site compound will be undertaken at commencement stage. The specific location of the site compound will change as the phase of the construction sequence are completed. As a rule, the site compound will be required to be positioned at a location that is a minimum of 75m set back from the nearest point of the existing drainage channels along the eastern boundary of the project site.

The construction compound for the development will be located within the green space area of the development, exact details shall be included in the construction stage CEMP. The compound will include a site office and welfare facilities for construction workers. Portaloos will be provided in the compound initially with a dedicated toilet block installed at a later date. Electrical and potable water supply will be provided from the adjoining farmyard. Car parking will be located adjacent to the construction compound.

Waste skips will be located adjacent to the site office. Containers and skips used for construction waste handling will be moved close to the work face, as required. Incoming construction materials will be offloaded and stored in the materials compound.

6.8.1.1 Vehicle Movements

Vehicle movements may result in dust emissions (by re-suspending dust from the road or from spilling dusty loads) and exhaust emissions. However, a number of control measures can be adopted to eliminate or minimise such emissions:

- Wheel washing facilities close to the site entrance to prevent mud from construction operations being transported on to adjacent public roads;
- Any spillages from vehicles leaving the site will be promptly removed;
- Damping down of site haul roads by water bowser during prolonged dry periods;
- Regular cleaning of hard-surfaced site entrance roads;
- Ensuring that dusty materials are transported appropriately (e.g. sheeting of vehicles carrying spoil and other dusty materials);
- Confinement of vehicles to designated haul routes within the site;
- Restricting vehicle speeds on haul roads and other unsurfaced areas on the site;
- All vehicles will be maintained to minimise exhaust emissions;
- Hoarding and gates to prevent dust breakout; and
- Appropriate dust site monitoring will be included within the site management practices to inform site management of the success of dust control measures used.

6.8.1.2 Construction Traffic

Construction traffic will comprise the construction workers (cars) and HGVs / LGVs carrying construction materials. All the construction traffic coming to and leaving the site will use the Old Cork Road.

Transport of construction material will comprise the majority of HGV traffic movements during the construction works. The appointed contractor will determine which facilities will provide construction materials and collect waste from the site. Suitably permitted waste contractors will be appointed to transport any waste off-site. Construction traffic, delivering to or collecting from the site, will be able to drive into the site and turn within the site such that there will be no queuing of traffic on the adjacent road network. Drivers coming to site will be informed of the site working hours and suppliers will not be permitted to park at the site entrance awaiting the gates to open.

The N-71 national route provides a link between the site and areas to the east and west. As a result, HGVs will be able to avoid entering the town centre for the most part.

There will be a noticeable increase in HGV traffic on the road network during the construction stage works as waste materials are removed from site and deliveries brought to site, however this activity will be of short duration and generally staggered.

Parking will be provided within the site boundary for construction staff and no car parking will be permitted outside of the site boundary.

Visual surveys of the road network approaching the site will be carried out on a regular basis. The main contractor will carry out road sweeping operations, employing a suction sweeper or similar appropriate method, to remove any project related dirt and/or material deposited on the road network by construction/delivery vehicles. The

contractor will be required to provide suitable hard standing directly within the site boundary off the main access to minimize spoil being transferred onto the public road.

Nonetheless, a wheel wash system will be set up in the event there is a risk of debris deposit on the road. Waste collection vehicles leaving the site will be required to cover their loads with a canvas to prevent waste or dust emissions from the vehicle on the road network.

The busiest period on site, in terms of HGV movements, could be during the early earth works stages. However, there is plenty of space on site to stockpile the material. There will be some excess material to be removed from the services installation with quantities of stone being delivered to backfill trenches and to fill under the floor slab.

Concrete pours will be required for foundations and ground floor slabs, assuming conventional blockwork or timber frame construction. After the concrete pouring, further concrete deliveries will be mainly confined to the delivery of materials e.g. blocks, timber, plasterboard, windows etc. and these will be scheduled for a single time in any given day. In terms of construction traffic, the main impact will either be earthworks or concrete pours. During this period, it is anticipated that there will be a total of 15 HGV trips to the site (30 two-way movements), arriving at an average rate of 4-6 HGVs per hour.

In addition, it is anticipated that there could be 40 construction workers on site during peak periods. Based upon a conservative vehicle occupancy of 2 workers per vehicle, this would result in up to 20 inbound, and 20 outbound, vehicle trips to the site each day. Construction worker travel will typically occur outside of peak hours on the local road network, with operatives typically arriving before 08:00, and leaving from 16:00 onwards.

The percentage of classified vehicles was used within the generated traffic models to reflect existing conditions more accurately (HGV% averaged across the study area calculated at 5-10%). The development of the site will see this percentage marginally increase during the construction stage of the scheme. In addition, allowance is made for a maximum number of workers/staff on-site (4 movements per employee including for lunch break) giving an overall construction phase traffic generation of 160 movements per day.

6.8.1.3 Construction Site Access

It is proposed to restrict HGV deliveries to the most suitable routes, in order to minimise the impact on the local community.

The establishment of a site compound will be undertaken at commencement stage. The specific location of the site compound will change as the phase of the construction sequence are completed. As a rule, the site compound will be required to be positioned at a location that is a minimum of 75m set back from the nearest point of the existing drainage channels along the eastern boundary of the project site.

The site compound location, construction traffic routes and parking proposals of workers along with general site considerations shall be confirmed at the construction phase Construction & Environmental Waste Management Plan. There will be sufficient space for construction vehicles to enter onto the site for delivery of materials and collection of waste without causing an obstruction on the public road network. There will also be sufficient space for HGVs to turn within the site. Signage will be erected on the local roads to notify motorists of the construction works ahead. Signage at the site entrance will be provided to ensure members of the public do not enter the site road mistakenly.

Details of the proposed construction route will be agreed with Cork County Council, prior to commencement of construction works, with the national road network being used as much as possible. The use of these designated routes can be written into Contractor obligations, and compliance can be assured through observations and monitoring.

6.8.1.4 Mitigation

Traffic impacts during the construction stage will be mitigated through the implementation of a Construction Traffic Management Plan (CTMP), which will be agreed with CCC. A Framework CTMP, which sets out the principles to be followed, is included as part of the application package.

The following measures will reduce the magnitude of HGV impacts on the adjoining road network:

- The re-use of excavated materials generated on-site will reduce the total volume of imported material thereby reducing traffic generation.
- Adequate storage space on site will be provided to accommodate all cut material.
- Defining delivery times to site will avoid background traffic peak periods. Trucks will be equipped with dust covers when carrying dust producing materials to reduce the environmental impact of this activity. HGV deliveries will be scheduled (as far as possible) outside of peak periods on the network, which have been identified as 08:00 – 09:00 and 16:30 – 17:30.
- Construction stage site staff starting at 07:00 and ending at 18:00 will avoid the recorded peak periods.
- Site Staff encouraged to car-pool and to use public transport.
- Wheel washing facilities will be provided on site, which will reduce the amount of dust and debris transferred to local roads. In addition, a road sweeper will be employed as required to ensure that the local road network is not unduly affected.
- Specific haulage routes will be identified and agreed with the Local Authority prior to commencement of construction.
- Construction Traffic Management Plan will be developed and implemented when appropriate, ie during the delivery of materials.
- Warning Signs and Advanced Warning Signs will be installed at appropriate locations in advance of the construction works. Signs will be placed along the length of the route, warning all road users, and local residents, of the presence of slow moving and turning HGV traffic. In addition, warning signs will be placed in advance of the Site Access junction, to warn drivers approaching from both directions.
- All site staff parking will be accommodated on-site within the designated site compound. No parking of site vehicles will be facilitated on the public road.
- All site vehicles are to be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol, or diesel. Spill kits will be available on site. It will be the responsibility of the main contractor to ensure that all vehicles delivering to the site are suitably licensed to use the public road and equipped for this activity.

6.8.2 Operational Phase

6.8.2.1 Traffic Generation for Proposed Development

Based on a review of the TRICS database, the number of similar sized sites was low for the different land uses (e.g. private dwellings) and a synopsis of the peak hour trip generation rates for the residential developments are outlined in Table 6-3.

Table 6 3: Typical Peak Hour Trip Rate – (TRICS)

Time Period	Outbound (No. of trips/trip rate)	Inbound (No. of trips/trip rate)	Total Two-Directional Volume (No. of trips/trip rate)
AM Peak Hour	0.551 vehs/dwelling	0.120 vehs/dwelling	0.671 vehs/dwelling
PM Peak Hour	0.177 vehs/dwelling	0.396 vehs/dwelling	0.573 vehs/dwelling

Table 6-4 outlines the trip rates used in relation to the two applications and for the purpose of consistency, the same trip rates have been applicated to the subject site for 212 No. residential dwellings.

Table 6 4: Peak Hour Trip Rates for Proposed Development (212 No. Residential Dwellings)

	Inbound (No. of trips/trip rate)	Outbound (No. of trips/trip rate)	Total Two-Directional (No. of trips/trip rate)
AM Peak Hour			
TRICS (People Trip Rate)	0.206 vehs/dwelling	1.000 vehs/dwelling	1.206 vehs/dwelling
Resultant People Trips	44 trips	212 trips	256 trips
Vehicle Trips (72% Modal Split*)	32	153	185
PM Peak Hour			
TRICS (People Trip Rate)	1.000 vehs/dwelling	0.545 vehs/dwelling	1.545 vehs/dwelling
Resultant People Trips	212 trips	116 trips	328 trips
Vehicle Trips (72% Modal Split*)	153	84	237

Source: Hegsons Design Consultancy Ltd *** CSO Model Split / Ref: Table 2.1**

6.8.2.2 Trip Distribution

For the purpose of the assessment, in order to forecast a distribution for the residential trips, analysis will be taken of the current trips accessing the area to the north and south in the peak periods based on the traffic counts undertaken in November 2023 and April / May 2025. This indicated that 66%-70% of trips headed south towards Bandon Town Centre and 30% - 34% of trips headed north towards the R589 Macroom Road in the peak hour periods. The distribution of the vehicle trip at each junction, north and south of the subject site, was in accordance with the current traffic turning movement recorded.

6.8.2.3 Traffic Assignment

It is widely accepted that, the total number of trips generated by a new development are not comprised wholly of new trips to the local road network. Given the nature of the local road network within the study area and in order to provide a robust assessment, a reduction in the quantum of trips associated with the proposed development has not been included within the assessment. Accordingly, it is considered that this assessment represents a robust analysis of the traffic volumes attracted and generated by the proposed residential development.

6.8.2.4 Traffic Growth

Based on the proposed construction plan for the proposed development, and for the purpose of this assessment, it has been assumed that the proposed development would have an opening year of 2028.

The TII Traffic and Transport Assessment Guidelines for a Traffic Impact Assessment recommend that the opening year (base year) of the development and a plan year, 10 and 15 years after the opening year, should be considered for assessing the proposed development.

The NRA in their Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections October 2021 envisage that car and light vehicle volumes on national roads would increase as detailed in Table 6-5.

Table 6 5: Summary of the Link Based Growth Rates for the Bandon Area (Table 6.1 Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections October 2021)

Low Sensitivity Growth Rates	Lights Vehicles	Heavy Vehicles
2016 - 2030	1.0173	1.0361
2030 - 2041	1.0067	1.0141
Central Growth Rates	**Lights Vehicles**	**Heavy Vehicles**
2016 - 2030	1.0189	1.0377
2030 - 2041	1.0087	1.0160
High Sensitivity Growth Rates	**Lights Vehicles**	**Heavy Vehicles**
2016 - 2030	1.0223	1.0411
2030 - 2041	1.0124	1.0197

Source: Table 6.1 Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections October 2021)

6.8.2.5 Committed Developments

Although the Central Level of traffic growth has been included for the road network and the initial assessment undertaken for this growth, a number of notable commitment development are also considered within the detailed assessment as outlined below.

- Castle Rock Homes (Bandon) Limited - Phase 1 Knockbrogan Development: Planning Application Ref: 21/4059 for the development of 65 No. residential units; and
- Castle Rock Homes (Bandon) Limited - Phase 2 Knockbrogan Development: Planning Application Ref: 24/5216 for the development of 95 No. residential units (Note: ABP Decision (ABP-320810-24) reduced the proposed development form 95 No. dwellings to 71 no. dwellings); and

- Structure Limited, Bandon - Knockbrogan Development: Planning Application Ref: 23/6540 for the development of 77 No. residential units & creche.

6.8.2.6 Traffic Impacts of the Proposed Development

In assessing each junction, guidelines outlined in the Institution of Highways and Transportation (IHT) "Guidelines for Traffic Impact Assessments" states that a traffic impact assessment is required if traffic to and from a development is likely to increase the two-way traffic flow at a junction in excess of 5%. In addition, an assessment is also required "where traffic congestion exists or will exist within the assessment period or in other sensitive locations". The following development years have been assessed the peak periods:

- 2025: Base Year
- 2028: Opening Year Assessment Phase 1; and
- 2031: Full Opening Year Assessment Phase 1-4; and
- 2038 & 2043: Further Design Year (+10 & + 15 years)

The operational assessment has been undertaken during the peak hour periods for the opening year (2028 &2031) and the +10 years (2038) and +15 years (2043) scenarios.

In addition, by 2031, the initiatives set out by the Mobility Management Plan, along with the proposed car parking provision, cycle facilities and footpaths and future development of the educational campus, will further reduce the trip generation rate associated with the proposed development and this is reflected in the following junction appraisals and analysis for the future design years of 2031, 2038 and 2043.

For the purpose of this assessment, it has been assumed that a 10% reduction in traffic generation rates by 2031 and a further 10% reduction (20% in total) by 2038 and 2043 will be experienced from the proposed development. A similar reduction has not been assumed for the background traffic.

6.8.2.7 Junction Appraisals

A robust assessment has been undertaken to accommodate all proposed vehicular movement at the critical road junction in close proximity to the subject site. The results of the capacity assessment have been summarised by Ratio of Flow to Capacity (RFC) and Maximum Queue Length for the AM and PM peak hours.

The junction modelled will be modelled with 'OD Tab'. The programs construct peak synthesised demand profiles for each arm by estimating the flow parameters, given peak hour flows in the form of an origin-destination table. This effectively synthesises a peak within the peak hour, therefore producing a worst-case scenario and hence making the traffic analysis robust.

For the purposed of the assessments, the Do Nothing scenarios include the CastleRock Homes (Bandon) - Phase 1 & Phase 2 Kilbrogan Residential Development and Structure Limited Bandon - Kilbrogan Residential Development as committed developments.

Within the 'Do Something' assessment, the absolute number of Heavy Goods Vehicle (HGV) movements was kept the same as the corresponding 'Do Minimum' scenario. This was because it is unlikely that a significant increase in HGV trips would be attracted by the proposed development. It should be noted, that the 'Do Something' junction analysis will be undertaken in order to determine the relative impact of the proposed development on the operating capacity of each junction. This identified the impact of the proposed development on the current junction arrangement (including normal future traffic growth).

The key junctions will be assessed within the study area if traffic to and from a development is likely to increase the two-way traffic flow at a junction in excess of 5%.

The operational assessment of the key junction has been undertaken during the peak hour periods for the opening year (2028) of the proposed development. Where appropriate, the junctions have been modelled using the industry approved PICADY (priority-controlled) software. The traffic models have been used to forecast capacities at the identified junctions, using RFC's (Ratio of Flow to Capacity) and maximum queue lengths. In addition, all junction operational arrangements have been discussed in the following sections of this report.

The following tables indicate the percentage increase of traffic at the various junctions as a result of the proposed development based on the application of the typical traffic growth factors for the area.

Table 6 6: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios - Knockbrogan Crossroad (R589 Macroom Road / L-2040 Old Cork Road Junction)

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,017	1,017	----
PM Peak Hour	944	944	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,149	1,160	0.97%
PM Peak Hour	1,089	1,104	1.31%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,192	1,242	4.21%
PM Peak Hour	1,129	1,193	5.69%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,256	1,301	3.55%
PM Peak Hour	1,189	1,246	4.80%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,312	1,356	3.40%
PM Peak Hour	1,241	1,298	4.60%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.97% and 1.31% increase in traffic in the peak periods assuming Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 4.21% and 5.69% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 7: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios - L-2040 Old Cork Road / R589 North Main Street Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,510	1,510	----
PM Peak Hour	1,431	1,431	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,763	1,789	1.46%
PM Peak Hour	1,727	1,762	2.02%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,827	1,943	6.34%
PM Peak Hour	1,788	1,945	8.79%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,924	2,027	5.35%
PM Peak Hour	1,880	2,020	7.43%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	2,008	2,111	5.13%
PM Peak Hour	1,959	2,099	7.13%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 1.46% and 2.02% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 6.34% and 8.79% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 8: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – R603 / Glasslyn Road / R589 North Main Street Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,775	1,775	----
PM Peak Hour	1,807	1,807	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	2,006	2,030	1.12%
PM Peak Hour	2,064	2,090	1.30%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	2,083	2,184	4.84%
PM Peak Hour	2,140	2,261	5.63%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	2,197	2,287	4.08%
PM Peak Hour	2,256	2,363	4.75%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	2,295	2,385	3.91%
PM Peak Hour	2,356	2,464	4.55%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 1.12% and 1.30% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 4.84% and 5.63% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 9: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – R603 / Oliver Plunkett Street Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,017	1,107	----
PM Peak Hour	1,169	1,169	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,226	1,237	0.85%
PM Peak Hour	1,305	1,319	1.04%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,272	1,319	3.68%
PM Peak Hour	1,353	1,414	4.51%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,341	1,382	3.11%
PM Peak Hour	1,426	1,480	3.80%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,399	1,441	2.98%
PM Peak Hour	1,487	1,542	3.65%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.85% and 1.04% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 3.68% and 4.51% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 10: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – R589 North Main Street / Killbrogan Hill Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,067	1,067	----
PM Peak Hour	1,054	1,054	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,145	1,146	0.13%
PM Peak Hour	1,132	1,133	0.14%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,191	1,197	0.56%
PM Peak Hour	1,177	1,184	0.60%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,260	1,266	0.47%
PM Peak Hour	1,246	1,252	0.51%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,321	1,327	0.45%
PM Peak Hour	1,305	1,312	0.48%

Source: Hegsons Design Consultancy Ltd – June 2025

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.13% and 0.14% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 0.56% and 0.60% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 11: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – R586 / Allen Square Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	787	787	----
PM Peak Hour	652	652	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	866	870	0.43%
PM Peak Hour	734	738	0.59%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	901	917	1.86%
PM Peak Hour	762	782	2.58%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	953	968	1.56%
PM Peak Hour	806	824	2.17%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,000	1,015	1.49%
PM Peak Hour	845	862	2.07%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.43% and 0.59% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 1.86% and 2.58% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 12: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – R589 Kilbrogan Hill / L2023 The Shambles Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	934	934	----
PM Peak Hour	893	893	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,014	1,020	0.61%
PM Peak Hour	960	967	0.73%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,054	1,081	2.63%
PM Peak Hour	997	1.029	3.18%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,114	1,138	2.21%
PM Peak Hour	1,055	1,083	2.67%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,165	1,190	2.11%
PM Peak Hour	1,104	1,132	2.55%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.61% and 0.73% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 2.63% and 3.18% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 13: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – R589 Macroom Road / R589 Killbrogan Hill Junction

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,020	1,030	----
PM Peak Hour	970	970	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,112	1,118	0.51%
PM Peak Hour	1,046	1,048	0.23%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,155	1,181	2.23%
PM Peak Hour	1,087	1.098	0.99%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,221	1,243	1.87%
PM Peak Hour	1,149	1,159	0.83%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,277	1,300	1.79%
PM Peak Hour	1,203	1,212	0.79%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.51% and 0.23% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 2.23% and 0.99% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

Table 6 14: Summary of the percentage increase of traffic at the main junctions for the Predicated Peak Hour Traffic Volumes – Do Nothing & Do Something Scenarios – N71 / Glasslyn Road Roundabout

Time Period	Do Nothing - Junction Traffic Volumes	Do Something - Junction Traffic Volumes	% Increase in Traffic Volumes
Base Year: 2025 Traffic Survey (vehs/hr)			
AM Peak Hour	1,356	1,356	----
PM Peak Hour	1,599	1,599	----
2028 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,490	1,498	0.58%
PM Peak Hour	1,750	1,758	0.47%
2031 Traffic Volumes (Proposed Opening Year) (vehs/hr)*			
AM Peak Hour	1,548	1,587	2.50%
PM Peak Hour	1,819	1.856	2.03%
2038 Traffic Volumes (Design Year: 10 years) (vehs/hr)**			
AM Peak Hour	1,637	1,672	2.10%
PM Peak Hour	1,924	1,956	1.71%
2043 Traffic Volumes (Design Year: 15 years) (vehs/hr)**			
AM Peak Hour	1,715	1,749	2.01%
PM Peak Hour	2,015	2,048	1.63%

Based on the percentage increase in traffic at the junction, the proposed development generates between a maximum of 0.58% and 0.47% increase in traffic in the peak periods assuming that Phase 1 of the proposed development is operational in the opening year 2028.

The proposed development will generate between 2.50% and 2.03% increase in traffic in the peak periods once the site is fully operational in the future year 2031, 2038 and 2043.

6.8.3 Cumulative Effects

The cumulative assessment considered all committed developments within the vicinity of the site and those which will have an impact on the junctions as identified previously. This includes sites which have previously been granted planning permission, but which are yet to become operational. Although there are a number of granted planning application within the area they are deemed to have a very minor impact on the selected junctions. The proposed development is not likely to result in significant adverse impacts either alone or in combination with the existing planned or likely future projects..

6.9 Mitigation Measures

6.9.1 Incorporated Design Mitigation

During the design stage the following mitigation measures were proposed for the development;

- Suitable Lighting of all junctions with lighting columns being positioned at the back of the footways.
- The connection of the proposed development footpaths to the existing footpath network to ensure connectivity to the wider area.
- The provision of bicycle stands and dedicated cycle routes through the development to encourage cycling.
- Charging points for electric vehicles are being provided.
- Development of a Mobility Management, submitted as part of this application, which outlines the mobility strategy for the proposed development and includes measures for guiding the delivery and management of coordinated mobility management initiatives.
- Identification of upgrade works as part of the proposed development.

6.9.2 Construction Phase Mitigation

Traffic impacts during the construction stage will be mitigated through the implementation of a Construction Traffic Management Plan (CTMP), which will be agreed with CCC. A Framework CTMP, which sets out the principles to be followed, is included as part of the application package.

The following measures will reduce the magnitude of HGV impacts on the adjoining road network:

- The re-use of excavated materials generated on-site will reduce the total volume of imported material thereby reducing traffic generation.
- Adequate storage space on site will be provided to accommodate all cut material.
- Defining delivery times to site will avoid background traffic peak periods. Trucks will be equipped with dust covers when carrying dust producing materials to reduce the environmental impact of this activity. HGV deliveries will be scheduled (as far as possible) outside of peak periods on the network, which have been identified as 08:00 – 09:00 and 16:30 – 17:30.
- Construction stage site staff starting at 07:00 and ending at 18:00 will avoid the recorded peak periods.
- Site Staff encouraged to car-pool and to use public transport.
- Wheel washing facilities will be provided on site, which will reduce the amount of dust and debris transferred to local roads. In addition, a road sweeper will be employed as required to ensure that the local road network is not unduly affected.
- Specific haulage routes will be identified and agreed with the Local Authority prior to commencement of construction.
- Construction Traffic Management Plan will be developed and implemented when appropriate, ie during the delivery of materials.
- Warning Signs and Advanced Warning Signs will be installed at appropriate locations in advance of the construction works. Signs will be placed along the length of the route, warning all road users, and local residents, of the presence of slow moving and turning HGV traffic. In addition, warning signs will be placed in advance of the Site Access junction, to warn drivers approaching from both directions.
- All site staff parking will be accommodated on-site within the designated site compound. No parking of site vehicles will be facilitated on the public road.
- All site vehicles are to be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol, or diesel. Spill kits will be available on site. It will be the responsibility of the main contractor to ensure that all vehicles delivering to the site are suitably licensed to use the public road and equipped for this activity.

There will be on-going monitoring of the impact of construction traffic on the wider roads network to ensure prompt action is taken in the event of an issue arising.

The contractor will be obliged to appoint a traffic liaison officer/traffic manager who will be involved in preparing the CTMP and to monitor the performance of the CTMP. The traffic liaison officer will be available to receive complaints, comments and queries about the traffic generated by the construction site and traffic issues associated with the site. Regular meetings will be held on-site to which with all relevant stakeholders will be invited. The traffic liaison officer/traffic manager will liaise with:

- Cork County Council including Elected Members
- An Garda Siochana
- Bus Eireann
- Other relevant statutory bodies
- Members of the community
- Adjacent contractors.

The traffic liaison officer/traffic manager will be sufficiently senior in position and will be responsible for dealing with any complaints and remedying any non-compliance and developing solutions to prevent re-occurrence.

6.9.3 Operational Phase Mitigation

During the Operational Phase Mitigation measures proposed during the operational stage are as follows;

- Provision of bike parking spaces above minimum requirements, including dedicated cargo bike spaces.
- Opting for fewer car parking spaces than the maximum allowed under the Cork County Council Development Plan. This reduction, coupled with initiatives promoting cycling as a viable alternative mode of transport, will significantly contribute to sustainability by diminishing reliance on private cars while fostering increased usage of more eco-friendly transportation options, notably cycling and bus services for commuting.
- Enhancing pedestrian and cyclist connectivity within the development and its adjacent residential areas to public transport and public parks.
- Establishing a dedicated pedestrian and cycle facility throughout the development.
- Installing cycle priority crossings within the development.
- Ensuring all footpaths within the development adhere to Part M compliance standards, incorporating crossing points in accordance with DMURS and Traffic Management Guidelines.
- Implementation of a number of initiatives and active monitoring within the development to promote modal change.
- Phasing of the proposed development to allow for future infrastructure improvements to be implemented outside of the control of the applicant.

6.10 Residual Impact Assessment

This section assesses potential significant environmental impacts which remain after mitigation measures are implemented.

6.10.1 Construction Phase

Following the implementation of the mitigation measures outlined in the Construction Environmental Management Plan (CEMP), the residual impact of construction related traffic on the local and national road network is expected to be temporary, minor, and manageable.

Construction traffic will be distributed over a three-year period commencing in 2026 and delivered in three defined phases. The majority of construction worker trips will occur outside of the peak morning traffic period (08:00–09:00), thereby limiting their impact on peak hour congestion. Furthermore, heavy goods vehicle (HGV) movements are planned to occur during off peak periods.

The implementation of a robust haulage plan, strict delivery scheduling, and the prohibition of on-road waiting or parking will ensure that the risk of localised congestion and disruption to the road network is minimal. Additional mitigation, including onsite vehicle staging areas, routine road cleaning, and the prevention of uncontrolled runoff, further supports the containment of potential environmental and operational impacts.

Importantly, the construction programme includes ongoing monitoring of traffic effects to enable the early identification and resolution of any emerging issues. This adaptive management approach is expected to provide further assurance that no significant long-term or residual impacts on the local or national road network will occur as a result of construction activities.

In summary, with the mitigation measures in place and maintained throughout the construction phase, the residual impact on the road network is considered to be negligible to minor in significance and strictly limited to the duration of the construction phase.

With the proposed mitigation in place, the Magnitude of Impact on the adjoining road network is considered to be a Minor impact, which would result in a short-term Moderate / Minor Significant of Effect, which is considered to be Not Significant in terms of the EIAR regulations.

6.10.2 Operational Phase

As population grows throughout Ireland and in particular, in popular commuting hub areas like Bandon, a continued increase in traffic volumes is not sustainable. The governments modal shift targets are outlined in the Smarter Travel: A Sustainable Transport Future. The key targets of Smarter Travel are to reduce work-related commuting by car to 45%, and increase other modes such as walking, cycling, public transport and carpooling to 55%. As a result, an ever-increasing approach by designers and planners to providing sustainable commuting alternatives is required. The use of public transport and promotion of walking and cycling will ultimately increase the overall quality of life for the people living in these fast paced, busy towns and villages located within commuter belts.

The proposed development has integrated a number of measures in line with the relevant standards and guidelines, such as DMURS and the Cycle Design Manual, which promotes the use of sustainable travel to and from the site.

The Road Safety Audit carried out for the site allowed the design team to address any concerns initially flagged in the Road Safety Audit. A continued and collaborative approach with the road safety auditors meant that a desirable and safe site layout could be achieved without negatively impacting the overall quality of the development.

The use of the private car will still be maintained as a primary mode of transport for a number of the residents in the development. Trip generations to and from the proposed development are 186 in the morning peak and 238 in the evening peak as noted above. The internal roads on the development to be constructed have been suitable designed in accordance with the DMURS manual.

Progressive and regular liaising with Cork County Council Roads Department in relation to the internal roads and the permitted link roads layouts contributed to the final road design for the development.

As noted previously, mitigation measures are to be implemented to promote and encourage more sustainable transport modes. Footpaths on the Old Cork Road will encourage pedestrians to walk to the town centre. Dedicated cycle routes and secure bicycle parking spaces within the site are also provided throughout the development.

6.10.3 Summary of Post-mitigation Effects

The following Table summarises the identified likely significant effects during the construction phase of the proposed development before mitigation measures are applied.

Table 6 15: Summary of Construction Phase Likely Significant Effects in the absence of mitigation

Likely Significant Effect	Quality	Significance	Extent	Probability	Duration	Type
Adjoining Road Network	Construction Vehicles	Low	Short-term	High	Short-term	Direct

The following Table summarises the identified likely significant effects during the operational phase of the proposed development before mitigation measures are applied.

Table 6 16: Summary of Operational Phase Likely Significant Effects in the absence of mitigation

Likely Significant Effect	Quality	Significance	Extent	Probability	Duration	Type
Traffic	Normal residential based traffic on the existing road network	Moderate	Long-tern	High	Long-term	Direct
Traffic	Development based HGV on road netowrk	Low	Short-term	Low	Short-term	Direct

6.10.4 Cumulative Residual Effects

The proposed development is not likely to result in significant adverse impacts on roads and traffic either alone or in combination with the existing planned or likely future projects.

6.11 Risk of Major Accidents or Disasters

6.11.1.1 Construction Phase

There will be no significant risk of major accidents or disasters during the construction phase of this development. Transport hazards that exist in the workplace must be assessed as part of this risk assessment and appropriate steps taken to eliminate or reduce any risks found. Vehicles are defined as a Place of Work under the Act. Hence, under Section 8 of the Act, the successful contractor must ensure so far as reasonably practicable that:

- Vehicles are designed, provided and maintained in a condition that is safe and without risk to health;
- Safe means of access and egress to and from the vehicle is designed, provided and maintained;
- Systems of work are planned, organised, performed, maintained, and revised as appropriate, for example safe systems of work must be available for vehicle loading and unloading activities; and
- Information, instruction, training, and supervision is provided for all employees who operate work related vehicles.

Regarding the construction phase, the contractor should employ a work-related vehicles safety plan and program for the duration for the works.

6.11.1.2 Operational Phase

During the operational phase the potential for increased accidents since this development is bringing additional vehicles into the vicinity of the proposed development. It should be noted that the successful contractor should ensure that the development is constructed in accordance with the design as set out by the consultants. The following is a non-exhaustive list of risk factors affecting the operational phase of this development:

- Speeding;
- Driving under the influence of alcohol and other psychoactive substances;
- Non-use of motorcycle helmets, seatbelts, and child restraints;
- Distracted driving; and
- The use of unsafe vehicles.

With reference to the operational phase, residents and other people using the road shall adhere to the Rules of the Road is published by the Road Safety Authority (RSA).

6.12 Interactions

The traffic impacts of the proposed development in during the construction and operational phases have been taken into consideration and have informed the preparation of various chapters of this EIAR.

Interactions between Traffic and Transport and the following factors have been identified and assessed: Population, Biodiversity, Water, Air Quality, Noise and Vibration and Human Health.

6.12.1 Population

The construction of proposed development will result in increased construction traffic (including but not limited to HGV) and traffic using the road network, particularly in the vicinity of site. This will likely impact on the journey characteristics and journey amenities of road users (motorised vehicles, cyclists, and pedestrians). While traffic will initially use national/ regional routes for access to the local area, traffic will be routed through existing urban and/ or rural areas to gain local access and this will include residential, community, educational, medical, and commercial areas. Access to community infrastructure and amenities will be maintained as far as practicable during construction however, there is a potential for impacts to occur due to an increase in traffic during both daytime and night-time construction works.

6.12.2 Biodiversity

The proposed development will result in increased traffic and transportation within the study area. These increases have the potential to negatively impact on biodiversity through temporary habitat fragmentation, increased noise and light disturbance, pollution, and mortality.

Construction vehicles produce sediment runoff through potential spillage of hydrocarbons and other materials with potential to impact on water quality, which may subsequently have negative impacts for aquatic species.

6.12.3 Water

There is a potential for contaminated run off from the machinery on site during construction. The increased traffic and transportation levels associated with the proposed works increase the risk of hydrological contamination via diffuse and point sources such as road runoff or oil/ fuel spills. Any such spills have the potential to negatively impact water quality in the surrounding hydrological regimes. This potential interaction is more likely during the construction stage.

During the operational phase, water quality can be impacted with any accidental release of oils, fuels, and chemicals, hydraulic fluids etc. from road service vehicles, trains etc. Mitigation measures are proposed to minimise effects of traffic and transport on the receiving water environment.

6.12.4 Air Quality

The generation of road traffic due to construction and operational phases has the potential to impact air quality including an increase in the emissions of particulate matter, nitrogen oxides and GHG. This will be particularly the case where road closures and diversions lead to localised congestion during the construction stage and resultant increase in pollution and emissions for the duration of the closure/ diversion. HGV traffic leaving construction sites has also the potential to generate dust emissions due to track-out of dust from the vehicle wheels to public roads. This will have negative, short-term impacts during the construction phase.

Mitigation measures are proposed to minimise effects of traffic and transport on sensitive receptors as relevant.

6.12.5 Noise and Vibration

The construction of proposed development will result in an increase in the traffic volumes on local roads due to road closures and diversions and an increase in HGV movements around construction compounds and along haul routes. The movements will contribute to increased noise levels. These impacts are short-term and mitigation measures will include best practice noise control measures, appropriate hours of operation and scheduling of works.

6.12.6 Human Health

The increased traffic during the construction and operation phase will result in indirect impacts related to air quality and noise levels on the human health. The changes in traffic flow rate and risks of accidents/ injuries can also have a negative impact on health across the community. However, the opportunities for income and employment generation will have the possibility to affect human health positively through the delivery of the proposed Project. There is a potential of benefits during the operation phase including improved air quality due to electrification of the rail fleet and overall increased capacity of the rail services. Opportunities for a modal shift to public transport and active travel options will also benefit human health. Chapter 23: Human Health, assesses impacts from traffic and transport proposals. Mitigation measures are proposed to minimise effects of traffic and transport on sensitive receptors as relevant.

6.13 Monitoring

6.13.1.1 Construction Phase

The contractor will be obliged to appoint a traffic liaison officer/traffic manager who will be involved in preparing the CTMP and to monitor the performance of the CTMP. The traffic liaison officer will be available to receive complaints, comments and queries about the traffic generated by the construction site and traffic issues associated with the site. Regular meetings will be held on-site to which with all relevant stakeholders will be invited. The traffic liaison officer/traffic manager will liaise with: ▪ Cork County Council including

- Elected Members
- An Garda Siochana
- Bus Eireann
- Other relevant statutory bodies
- Members of the community
- Adjacent contractors

The traffic liaison officer/traffic manager will be sufficiently senior in position and will be responsible for dealing with any complaints and remedying any non-compliance and developing solutions to prevent re-occurrence.

6.13.1.2 Operational Phase

There will be no monitoring requirements of the traffic and transport in the operational phase of the development.

6.14 References and Sources

- TII's Traffic and Transport Guidelines PE-PDV-02045 (May 2014)
- Cork County Council Development Plan (2022-2028)
- NTA Cycle Design Manual; and
- Design Manual for Urban Roads and Streets