

Cork County Council

Carrigaline TPREP Phase 1B

EIA Screening Report

Reference: 285392-00_EIA Screening

Issue | 08 November 2023

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 285392-00

Arup Ireland Partner Limited 50 Ringsend Road Dublin 4 D04 T6X0 Ireland arup.com



Document Verification

Project title Carrigaline TPREP Phase 1B

Document title EIA Screening
Job number 285392-00

Document ref 285392-00_EIA Screening

File reference

Issue	Description Name Signature	Issue Prepared by Zak Henderson	Checked by Daniel Garvey	Approved by
			-	
		Zak Henderson	Daniel Garvey	
	Signature			Daniel Garvey
		Tale All	Tombon	- Tenham
	Filename			
	Description			
		Prepared by	Checked by	Approved by
		,		
	Signature			
	Filename			
	Description			
		Prepared by	Checked by	Approved by
	Name	. repaired by		, ipprovou by
	Signature			

Contents

1.	Introduction	1
2.	Legislation and Guidance	2
2.1	Introduction	2
2.2	Legislation	2
2.3	Guidance	5
3.	EIA Screening Methodology	7
3.1	Step 1: Understanding the Proposal	7
3.2	Step 2: Preliminary Examination and Conclusion	1
3.3	Step 3: Formal Screening Determination	4
4.	Location of the Proposed Development	5
5.	Characteristics of the Proposed Development	10
5.1	Overview of the Proposed Development	10
5.2	Description of the Proposed Development	12
6.	Type and Characteristics of the Potential Impacts	16
6.1	Population and Human Health	16
6.2	Biodiversity	16
6.3	Historical, Cultural and Archaeological Heritage	22
6.4	Landscape and Visual	23
6.5	Soils and Geology	25
6.6	Water Quality, Hydrology and Hydrogeology	25
6.7	Air Quality and Climate	26
6.8	Noise and Vibration	26
6.9	Land Use and Material Assets	27
6.10	Cumulative Effects	27
6.11	Interaction between the above factors	28
6.12	Transboundary Effects	28
7.	Overall Conclusions	29
8.	References	30
9.	Screening Checklist	31
Table	S	
Table	1: Requirement for Mandatory EIA Screening	1
Table 2	2: Preliminary Examination	1
Table :	3 Conclusion of Preliminary Examination	2
Table 4	4 Required information outlined in Schedule 7A and Annex III	3
	5 Description of the Proposed Development	11
	6: Vegetation Removal within the Proposed Development	17
	7: Protected Species	19
Table	8: Archaeological Features in Carrigaline	22

Table 9: Screening Checklist to determine if EIA is required based on the characteristics of a project and its environment	31
Figures	
Figure 1: Phase 1B routes in the context of the proposed Carrigaline TPREP pedestrian and cycling network	ϵ
Figure 2: Location of the Proposed Development (Source: Google Maps) not to scale	7
Figure 3: Bat PRFs and Bee Colonies within 30m of the Proposed Development	18
Figure 4: Grid Squares W76G. W76L and W76F (2km²)	19
Figure 5 Natura 2000 Sites within 15km of the Proposed Development not to scale Google Earth	21
Figure 6 NIAH sites in close proximity to the Proposed Development not to scale Google Earth	23
Figure 7: High Value Landscape (Source: Cork County Development Plan 2022-2028)	24
Appendices	
Appendix A	A-1
Carrigaline TPREP Phase 1B Drawings	A-1
Appendix B	B-1
Form 3 – OPR Screening Checklist	B-1

1. Introduction

Arup has prepared this Environmental Impact Assessment (EIA) Screening Report on behalf of Cork County Council (CCC) for the proposed Carrigaline Transportation and Public Realm Enhancement Plan (TPREP) Phase 1B (hereafter referred to as 'the Proposed Development') in Carrigaline, Co. Cork.

The Carrigaline TPREP outlines five key objectives:

- Connect people to places via a sustainable transport network and reduce the level of car dependency in the town;
- Provide the built environment to assist in rejuvenating business within the town centre;
- Encourage greater number of residents to walk and cycle in the town; and
- Improve access to educational, social and employment opportunities.

The Proposed Development includes a network of pedestrian and cycle routes within Carrigaline which will enhance the priority of these modes of transport. These routes forms part of a comprehensive pedestrian and cycle route network that was identified in the Carrigaline TPREP study carried out in 2020 and 2021.

The Proposed Development encompasses six routes including:

- 1. Cork Road from the Ballinrea Road Roundabout at the northern edge south to the Ballea Road Roundabout;
- 2. Rose Hill from the Kilmoney Road Upper Junction in the north to the Rose Hill Junction to the south:
- 3. Ballea Road from the Mill Road Roundabout (to the west) to the Junction with Main Street (in the east);
- 4. Church Road from the Cork Road/R612 Junction (to the west) to the Junction with an unnamed road east of The Estuary. This section also extends from the Junction at Church Road and Rock Road in the south to the Junction of Fernhill Road and Laurelmount Drive in the north;
- 5. Kilmoney Road Lower between the entrance to Dairygold Co Op Superstore and Abbey View, and between Castle Heights and Upper Kilmoney Road; and
- 6. Strand Road from Dunnes Stores to the southern edge of Bothar Guidel Bridge and east to Owenabue Sail Garden.

The Proposed Development will include public realm enhancements new footpaths and cycle tracks and quiet street treatment. Localised replacement of existing infrastructure will be required to provide a more comprehensive pedestrian and cycle network throughout the town of Carrigaline. An overall depiction of the Proposed Development is included in Appendix A.

This document sets out the results of the EIA Screening and provides the competent authority / roads authority CCC with the information necessary to undertake the EIA screening assessment in respect of the Proposed Development and to make an EIA Screening Determination.

2. Legislation and Guidance

2.1 Introduction

This section outlines the relevant legislation and guidance reviewed in the compilation of this EIA Screening Report. The requirement for screening of sub-threshold developments is outlined in this section.

2.2 Legislation

The current requirements for EIA for projects are set out by the European Union in Council Directive 2011/92/EU on the Assessment of the Effects of Certain Public and Private Projects on the Environment, as amended by Directive 2014/52/EU. Further details are provided in Section 2.2.1 below.

The requirements of the 2014 EIA Directive were transposed into Irish law with the enactment of a number of implementing legislative measures, including S.I. No. 296/2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 and S.I. No. 279/2019 – European Union (Roads Act 1993) (Environmental Impact Assessment) (Amendment) Regulations 2019. These Regulations resulted in amendments to the following legislation which are considered relevant to this project:

- The Planning and Development Act 2000, as amended
- The Planning and Development Regulations 2001, as amended
- The Roads Act 1993, as amended, as amended
- The Roads Regulations 1994, as amended

Further information on all relevant legislation is provided in Section 2.2.1- Section 2.2.3 below.

2.2.1 EIA Directive 2014/52/EU

A European Directive for EIA has been in force since 1985 since the adoption of Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

The EIA Directive of 1985 has been amended three times by Council Directives 97/11/EC, 2003/35/EC and 2009/31/EC. It was ultimately codified and repealed by Council Directive 2011/92/EU on 13 December 2011. This Directive was further amended in 2014 by Council Directive 2014/52/EU which sets out the current requirements for member states on the assessment of the effects of certain public and private projects on the environment.

The EIA Directive sets out the requirements of the EIA process, including screening to determine the need for an EIA. Projects listed in Annex I of the EIA Directive require a mandatory EIA whilst projects listed in Annex II require screening to determine as to whether an EIA is required.

The EIA Directive 2014/52/EU defines the term 'project' as meaning: "the execution of construction works or of other installations or schemes, - other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources."

Articles 4(4) and 4(5) of the EIA Directive set out the requirements for EIA screening of Annex II projects as follows:

- "4(4) Where Member States decide to require a determination for projects listed in Annex II, the developer shall provide information on the characteristics of the project and its likely significant effects on the environment. The detailed list of information to be provided is specified in Annex IIA. The developer shall take into account, where relevant, the available results of other relevant assessments of the effects on the environment carried out pursuant to Union legislation other than this Directive. The developer may also provide a description of any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.
- 4(5) The competent authority shall make its determination, on the basis of the information provided by the developer in accordance with paragraph 4 taking into account, where relevant, the results of preliminary verifications or assessments of the effects on the environment carried out pursuant to Union legislation other than this Directive. The determination shall be made available to the public and:
- (a) where it is decided that an environmental effect assessment is required, state the main reasons for requiring such assessment with reference to the relevant criteria listed in Annex III; or
- (b) where it is decided that an environmental effect assessment is not required, state the main reasons for not requiring such assessment with reference to the relevant criteria listed in Annex III, and, where proposed by the developer, state any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment."

2.2.2 Planning and Development Act and Planning and Development Regulations

The EIA Directive has been transposed into Irish law under the Planning and Development Act, 2000, as amended and the associated Planning and Development Regulations 2001, as amended and European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Section 172 of the Planning and Development Act 2000, as amended, sets out the requirement for EIA.

The prescribed classes of development and thresholds that trigger a mandatory Environmental Impact Assessment are transposed from Annex I and II of the Directive and set out in Schedule 5 of the Planning and Development Regulations 2001, as amended.

Under the legislation, all projects (defined in Section 2.2.1) can be placed into one of the following categories with regard to the EIA process:

- Those that exceed the thresholds set out in the legislation and therefore have a mandatory requirement to prepare an EIAR;
- Those projects that are sub-threshold must be assessed on a case-by-case basis to determine whether or not they are likely to have significant effects on the environment; and
- Projects that fall under Annex II (13) (a) of the EIA Directive where any change or extension of projects listed in Annex I or Annex II, already authorised, or in the process of being executed.

The information to be provided by the applicant or developer for the purposes of screening sub-threshold development for EIA is set out in Schedules 7 and 7A of the Planning and Development Regulations 2001, as amended.

2.2.3 The Roads Act 1993 and Road Regulations 1994

The Roads Act 1993, as amended, and the Road Regulations 1994 provide the prescribed classes of road developments that trigger a mandatory EIA. Under Section 2 of the Roads Act, a "road" is defined as:

- "(a) any street, lane, footpath, square, court, alley or passage,
- (b) any bridge, viaduct, underpass, subway, tunnel, overpass, overbridge, flyover, carriageway (whether single or multiple), pavement or footway,

- (c) any weighbridge or other facility for the weighing or inspection of vehicles, toll plaza or other facility for the collection of tolls, service area, emergency telephone, first aid post, culvert, arch, gulley, railing, fence, wall, barrier, guardrail, margin, kerb, lay-by, hard shoulder, island, pedestrian refuge, median, central reserve, channeliser, roundabout, gantry, pole, ramp, bollard, pipe, wire, cable, sign, signal or lighting forming part of the road, and
- (d) any other structure or thing forming part of the road and
 - (i) necessary for the safety, convenience or amenity of road users or for the construction, maintenance, operation or management of the road or for the protection of the environment; or
 - (ii) prescribed by the Minister"

Section 50(1)(a) of the Roads Act sets out the threshold for mandatory EIA which states:

- 'A road development that is proposed that comprises any of the following shall be subject to an environmental impact assessment:
- (i) the construction of a motorway;
- (ii) the construction of a busway;
- (iii) the construction of a service area;
- (iv) any prescribed type of road development consisting of the construction of a proposed public road or the improvement of an existing public road'.

The 'prescribed types of road development' under Section 50(1)(a)(iv) of the Roads Act 1993, as amended, are set out in Part V Environmental Impact Assessment of the Road Regulations 1994 (S.I. No. 119 of 1994), as amended, which states the following:

- '(8). The prescribed types of proposed road development for the purpose of subsection (1)(a)(iv) of section 50 of the Act shall be -
- (a) the construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 meters or more in length in an urban area;
- (b) the construction of a new bridge or tunnel which would be 100 meters or more in length'.

Section 50(1)(e) of the Environmental Impact Assessment of the Road Regulations 1994, as amended, states that the road authority shall take into account the relevant selection criteria specified in Annex III (of the EIA Directive) in making its EIA Screening determination (see below).

Annex III of the EIA Directive

SELECTION CRITERIA REFERRED TO IN ARTICLE 4(3) (CRITERIA TO DETERMINE WHETHER THE PROJECTS LISTED IN ANNEX II SHOULD BE SUBJECT TO AN ENVIRONMENTAL IMPACT ASSESSMENT)

1. Characteristics of projects

The characteristics of projects must be considered, with particular regard to: (a) the size and design of the whole project; (b) cumulation with other existing and/or approved projects; (c) the use of natural resources, in particular land, soil, water and biodiversity; (d) the production of waste; (e) pollution and nuisances; (f) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge; (g) the risks to human health (for example due to water contamination or air pollution).

2. Location of projects

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to: (a) the existing and approved land use; (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; (c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC; (vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure; (vii) densely populated areas; (viii) landscapes and sites of historical, cultural or archaeological significance.

3. Type and characteristics of the potential impact

The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard to the impact of the project on the factors specified in Article 3(1), taking into account: (a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected); (b) the nature of the impact; (c) the transboundary nature of the impact; (d) the intensity and complexity of the impact; (e) the probability of the impact; (f) the expected onset, duration, frequency and reversibility of the impact; (g) the cumulation of the impact with the impact of other existing and/or approved projects; (h) the possibility of effectively reducing the impact.

2.3 Guidance

A review of the above legislation was undertaken for the purpose of this EIA screening report. The following guidance documents have also been considered during the preparation of this report:

- Department of Housing, Planning, Community and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018);
- Department of Housing, Planning, Community and Local Government (2017) Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems;
- Department of Housing, Planning, Community and Local Government (2017) Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition;
- Department of the Environment, Heritage and Local Government (2003) Environmental Effect Assessment (EIA) *Guidance for Consent Authorities regarding Sub-Threshold Development*;

- Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports (May 2022);
- European Commission (2017) Guidance on EIA Screening;
- The Department of Housing Planning and Local Government's (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment;
- The Department of the Environment, Heritage and Local Government (2003) Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development;
- Office of the Planning Regulator (OPR) (2021) OPR Practice Note PN02 Environmental Impact Assessment Screening.

The OPR guidance is the most recent with regard to EIA screening and further information is provided in Section 2.3.1 below.

2.3.1 OPR Practice Note PN02 Environmental Impact Assessment Screening 2021

The Office of the Planning Regulator (OPR) published document 'Practice Note PN02 Environmental Impact Assessment Screening' in 2021.

The Practice Note advocates a step-by-step approach to EIA screening, as outlined below:

Step 1. Understanding the Proposal

• Is the proposal a 'project' within the meaning of the EIA Directive?

Determine whether a proposal is a 'project' described in the EIA Directive and thus whether the EIA Directive applies.

- Is the project a 'sub-threshold development'?
 - If the project is not of a class of development in Schedule 5, Parts 1 and 2, it is not 'subthreshold development', no EIA or EIA screening is required.
 - If the proposed project is of a class set out in Schedule 5, Part 1 or Part 2 and does meet or exceed the relevant threshold, or where no threshold applies, a mandatory EIAR is required.
 - If the proposed project is of a class set out in Schedule 5, Part 2 but does not meet or exceed the relevant threshold, it is a 'sub-threshold development' and must be screened for EIA.

Step 2. Preliminary Examination

Where a development is 'sub-threshold', a preliminary examination, of, at least, the nature, size or location of the development to conclude if there is a likelihood of significant effects on the environment, must be carried out.

Step 3. EIA Screening Determination

Where the requirement to carry out EIA is not excluded at preliminary examination stage, or where Schedule 7A information has been submitted by the applicant, the competent authority must carry out a screening determination. The screening determination can only be carried out on the basis of the Schedule 7A information which the competent authority must request if not already submitted.

Ireland Ltd

3. EIA Screening Methodology

The screening methodology applied in this EIA Screening report follows the structured approach provided for in the OPR Practice note as set out in Section 2.3.1. The OPR have established three steps to follow within EIAR screening which are responded to in the sections below.

It should be noted that the OPR Guidance is centred around EIA Screening under the Planning and Development Act 2000, as amended, and the Planning and Development Regulations, as amended.

However, given the nature of the Proposed Development, it is also considered to be a 'road development', under the definition of Section 2(a) of the Roads Act 1993, as amended, where a "road" is defined as:

"(a) any street, lane, footpath, square, court, alley or passage,

Thus, the OPR guidance has been adapted, within this EIA Screening Report, to also consider the requirements for EIA screening under the Roads Act 1993, as amended, and the Roads Regulations, 1994, as amended.

3.1 Step 1: Understanding the Proposal

As outlined in Section 3, the first step of EIA Screening is to understand the proposal. Thus, an appraisal of the proposed works was carried out under the headings specified in the OPR Practice Note.

3.1.1 A- Is the proposal a 'project' within the meaning of the EIA Directive?

The EIA Directive 2014/52/EU defines the term 'project' as meaning: "the execution of construction works or of other installations or schemes, - other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources."

As outlined in Section 1, the Proposed Development aims to implement infrastructure to support pedestrian, cyclist and public transportation access throughout the Proposed Development and seeks to enhance the flow of traffic through Carrigaline. Thus, the proposed works are considered to constitute a 'project' under the meaning of the EIA Directive. The EIA Directive does apply to the proposed works.

3.1.2 B- Is the project a 'sub-threshold development'?

This step requires an evaluation of both the Planning and Development Regulations 2001, as amended, and the Roads Act, 1993, as amended, to determine if mandatory EIA is required, or whether the Proposed Development needs to be screened for EIA.

Planning and Development Regulations 2001

The prescribed classes of development and thresholds that trigger a mandatory Environmental Impact Assessment are set out in Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended. A review of the project types listed in the aforementioned Schedule 5 has been carried out

The Proposed Development is not a project type/class listed in Part 1 of Schedule 5 of the Planning and Development Regulations 2001, as amended. Thus, a mandatory EIA is not required under this class.

The Proposed Development is not a project type/class listed in Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended. However, Part 2(15) of the Regulations states that

"Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development, but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7."

Part 2(15) of the Regulations ultimately requires the competent authority to determine, in the case where a project is considered 'sub-threshold' to the projects listed in Part 2 of Schedule 5, whether the project would likely give rise to significant effects on the environment.

The site area of the Proposed Development measures approximately 7.42ha and is situated in various locations throughout Carrigaline.

Having regard to Part 2(15) of Schedule 5 of the Regulations, the Proposed Development could be considered sub-threshold urban development involving an area of 10 hectares in a built-up area, in respect of Part 2(10)(iv) of the Regulations:

"(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."

The Proposed Development constitutes an urban development in other parts of a built-up area. However, as the site area is 8.55 hectares, the Proposed Development is considered a sub-threshold urban development.

Section 103 of the Planning and Development Regulations 2001, as amended sets out the requirements for screening a sub-threshold planning application for EIA as follows:

- 103.(1) (a) Where a planning application for sub-threshold development is not accompanied by an EIAR, the planning authority shall carry out a preliminary examination of, at the least, the nature, size or location of the development.
- (b) Where the planning authority concludes, based on such preliminary examination, that—
- (i) there is no real likelihood of significant effects on the environment arising from the Proposed Development, it shall conclude that an EIA is not required,
- (ii) there is significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the Proposed Development, it shall, by notice in writing served on the applicant, require the applicant to submit to the authority the information specified in Schedule 7A for the purposes of a screening determination unless the applicant has already provided such information, or
- (iii)there is a real likelihood of significant effects on the environment arising from the Proposed Development, it shall—
- (I) conclude that the development would be likely to have such effects, and
- (II) by notice in writing served on the applicant, require the applicant to submit to the authority an EIAR and to comply with the requirements of article 105.
- (1A) (a) Where an applicant is submitting to the planning authority the information specified in Schedule 7A, the information shall be accompanied by any further relevant information on the characteristics of the Proposed Development and its likely significant effects on the environment, including, where relevant, information on how the available results of other relevant assessments of the effects on the environment carried out pursuant to European Union legislation other than the Environmental Impact Assessment Directive have been taken into account
- (b) Where an applicant is submitting to the planning authority the information specified in Schedule 7A, the information may be accompanied by a description of the features, if any, of the Proposed Development and the measures, if any, envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment of the development.

The information provided in this report provides details on the characteristics of the Proposed Development and its likely significant effects (if any) on the environment. It provides the relevant details under each of the criteria set out in Schedule 7A of the Planning and Development Regulations 2001, as amended. This information will assist the competent authority / roads authority, CCC, to make a screening determination under Section 103 of the Planning and Development Regulations 2001, as amended.

Thus, as the proposed development can be considered to constitute 'sub-threshold' development with regards Part 2(10)(iv) of the Regulations, an assessment is required to be carried out to determine if the proposed development has the potential to give rise to significant effects on the environment.

Roads Act 1993, as amended

As noted in Section 2.2.3 above, Section 50 (1) of the Roads Act (1993) (as substituted by S.I No. 279 of 2019 and amended by S.I. 486 of 2019) specifies road developments for which an Environmental Impact Assessment is mandatory in Section 50(1)(a).

The Proposed Development does not comprise the construction of a motorway, busway or service area as defined in the Roads Act (1993), as amended.

The Proposed Development does not involve the "the construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road 500 metres or more in length in an urban area;" No roads will be widened to four or more traffic lanes and no new four lane roads, bridges or tunnels will be constructed. Therefore, the Proposed Development does not constitute a 'prescribed type of road development' under section 50(1)(a)(iv) as set out in Part V of the Environmental Impact Assessment of the Road Regulations 1994 (as amended).

The proposed development involves upgrade works to six existing roads: Cork Road, Rose Hill, Ballea Road, Church Road, Kilmoney Road, and Strand Road which are assessed with regards Part V(8)(a) of the Environmental Impact Assessment of the Roads Regulations 1994, as amended (Refer to Table 1).

Table 1: Requirement for Mandatory EIA Screening

	Cork Road	Rose Hill	Ballea Road	Church Road	Kilmoney Road	Strand Road
Existing Layout	2 traffic lanes and 2 footpaths on the majority of the route. ~90m of 1 bus lane on approach to Ballinrea Road	2 traffic lanes with 1 footpath for a short section	2 traffic lanes and 2 footpaths	2 traffic lanes and 2 footpaths	2 traffic lanes with 1 footpath for the majority of the route. 2 footpaths for ~300m on approach to Main Street	2 traffic lanes and 2 footpaths
Proposed Works	Addition of a two-way cycle track and a cycle track approach to the Cork Road / Church Road Junction.	Addition of 1 cycle-track and 1 footpath for the entirety of the route	Addition of 2 cycle- tracks alongside 2 footpaths	Addition of 2 cycle- tracks with small sections of shared paths	Addition of sections of 2 footpaths and 2 cycletracks with small sections of shared paths	Addition of 2 cycletracks with a small section of a shared path
Length of proposed works	592m	405m	805m	1,140m	860m	360m
Proposed Widening	No	Yes	Yes	Yes	Yes	Yes

Cork County Council

	Cork Road	Rose Hill	Ballea Road	Church Road	Kilmoney Road	Strand Road
Proposed Layout	2 traffic lanes, 2 footpaths, 2 cycle- tracks and 1 shared cycle-track	2 traffic lanes, 2 footpaths and 1 cycle- track	2 traffic lanes, 2 footpaths and 2 cycle- tracks	2 traffic lanes, 2 footpaths, 2 cycle-tracks and small sections of shared paths	2 traffic lanes, sections of 2 footpaths, 2 cycle- tracks and small sections of shared paths	2 traffic lanes, 2 footpaths, 2 cycle-tracks and small section of shared path
Requirement for EIA	No. Below threshold as not considered widening to provide four or more lanes*.	No. Below threshold as not considered widening to provide four or more lanes*.	No. Below threshold as not considered widening to provide four or more lanes*.	No. Below threshold as not considered widening to provide four or more lanes*.	No. Below threshold as not considered widening to provide four or more lanes*.	No. Below threshold as not considered widening to provide four or more lanes*.

^{*}It is assumed that cycle tracks and footpaths do not constitute 'lanes' under subsection(1)(a)(iv) of section 50 of the Roads Act or Part V of the Roads Regulations.

The Proposed Development is not in a class listed in section 50 (1) of the Roads Act (1993), as amended, and it does not equal or exceed the thresholds set down in articles (8a) or (8b) of Roads Regulations 1994, as amended. Consequently, a mandatory EIA is not required.

As the Proposed Development does not exceed the thresholds for mandatory EIAR, it is considered to be 'sub-threshold' with regard to the 'prescribed types of road development' set out in Part V Environmental Impact Assessment of the Road Regulations 1994, as amended. Therefore, an EIA Screening assessment is required to determine if the Proposed Development has the potential to give rise to significant environmental effects.

3.2 Step 2: Preliminary Examination and Conclusion

In the OPR Practice Note, Form 2 allows the preliminary examination to be recorded. Table 2 and Table 3 based on Form 2 of the Practice Note, summarise the preliminary examination based on the information provided in Section 4 of this Report, on the nature, size and location of the Proposed Development.

Table 2: Preliminary Examination

Preliminary Examination		
	Comment	Yes/No/Uncertain
Nature of the development: Is the nature of the Proposed Development exceptional in the context of the existing environment?	The nature of the development is not exceptional in the context of the existing environment. The Proposed Development aims to provide an integrated pedestrian and cycle network within Carrigaline alongside public realm enhancements. The location of the scheme is within a mix of commercial and residential land uses.	No
Will the development result in the production of any significant waste, or result in significant emissions or pollutants?	Given the size of the Proposed Development, significant waste, emissions or pollutants are not expected to arise as a result of the works. However, Owenabue Medical Centre, the Kingdom Hall of Jehovah's Witnesses, the Carrigaline Playground, St Mary's Church, Carrigaline United AFC, Lidl, the Carrigaline Fire Station, and the Church of Our Lady and Saint John are adjacent to the Proposed Development. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is the potential for localised dust and noise emissions to impact on these sensitive receptors.	Uncertain
Size of the development: Is the size of the Proposed Development exceptional in the context of the existing environment?	The Proposed Development is not exceptional in the context of the existing environment. The Proposed Development encompasses an area of approximately 7.42ha. The total length of each of the roads included within the Proposed Development are as follows: Cork Road: 592m Ballea Road: 805m Church Road: 1,140m Rock Road: 355m Rose Hill: 405m Kilmoney Road: 860m Strand Road: 360m	No
Are there cumulative considerations having regard to other existing and/or permitted projects?	An application has been granted conditional permission for the construction of 2 no. dwellings on Cork Road (Planning Reference: 206794). Permission has been granted for a residential development 130m south of the Ballea Roundabout for 72 two-storey houses and all ancillary development works (Planning Reference: 214818). Permission has also been granted for Lidl to develop a new 2,540m² food store and car park comprising 212 no. surface car parking spaces (Planning Reference: 215966). The Lidl development also consists of the demolition of the previous food store. Additionally, permission has also been granted for the construction of 2 no. two-storey dwellings	Uncertain

Preliminary Examination			
	Comment	Yes/No/Uncertain	
	adjacent to Church Road (Planning Reference: 215154).		
	As the Proposed Development constitutes Phase 1B of the Carrigaline TPREP, consideration has been given to the works proposed under the Phase 1A and Bothar Guidel Pedestrian Bridge developments.		
Location: Is the Proposed Development located on, in, adjoining or does it have the potential to impact on an ecologically sensitive site or location?	There are two designated sites within 15km of the proposed works, one Special Protection Area (SPA) and one Special Conservation Area (SAC). The Cork Harbour SPA is adjacent to the Proposed Development at Strand Road. The Great Island Channel SAC is approximately 8km north east of the Proposed Development.	Uncertain	
Does the Proposed Development have the potential to affect other significant environmental sensitivities in the area?	There are no other significant environmental sensitivities in the area.	No	

Table 3 Conclusion of Preliminary Examination

Conclusion of Preliminary Examination			
Based on a preliminary examination of the nature, size or location of the development: (Tick as appropriate)			
There is no real likelihood of significant effects on the environment. EIA is not required.	There is real likelihood of significant effects on the environment. An EIAR is required.	There is significant and realistic doubt regarding the likelihood of significant effects on the environment. Proceed to Screening Determination.	
		X	

As noted in Table 3 the conclusion of Arup's preliminary examination is that the nature, scale and location of the Proposed Development is such that there is significant and realistic doubt regarding the likelihood of significant effects on the environment arising from the Proposed Development.

Thus, full EIA Screening is warranted.

As outlined in Section 2.2.2, the information to be provided for the purposes of screening sub-threshold development for EIA, under the Planning and Development Regulations 2001, as amended, is set out in Schedule 7A of the same Regulations.

As outlined in Section 2.2.3, the Road Regulations 1994, as amended, states that the road authority shall take into account the relevant selection criteria specified in Annex III (of the EIA Directive) in making its EIA Screening determination.

Section 4 - Section 6 of this EIA Screening Report sets out the information required under both Schedule 7A of the Planning and Development Regulations 2001, as amended, and Annex III of the EIA Directive, under the following headings:

- Characteristics of the Proposed Development;
- Location of the Proposed Development;
- Type and Characteristics of Potential Effects.

It is noted that the information set out in Schedule 7A of the Planning and Development Regulations 2001, as amended, is derived from Annex III of the EIA Directive. and thus the information requirements largely align.

Table 4 identifies the relevant sections of this EIA Screening Report where the required information is set out.

Table 4 Required information outlined in Schedule 7A and Annex III

Schedule 7A information (Planning and Development Regulations)	Annex III of EIA Directive (Road Regulations)	Section of this EIA Screening Report where this is addressed
1. A description of the Proposed Development, including in particular— (a) a description of the physical characteristics of the whole Proposed Development and, where relevant, of demolition works, and (b) a description of the location of the Proposed Development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	1. Characteristics of projects The characteristics of projects must be considered, with particular regard to: (a) the size and design of the whole project; (b) cumulation with other existing and/or approved projects; (c) the use of natural resources, in particular land, soil, water and biodiversity; (d) the production of waste; (e) pollution and nuisances; (f) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge; (g) the risks to human health (for example due to water contamination or air pollution).	Section 5-Characteristics of the Proposed Development
2. A description of the aspects of the environment likely to be significantly affected by the Proposed Development.	2. Location of projects The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to: (a) the existing and approved land use; (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; (c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC; (vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure; (vii) densely populated areas; (viii) landscapes and sites of historical, cultural or archaeological significance.	Section 4- Location of the Proposed Development
3. A description of any likely significant effects, to the extent of the information available on such effects, of the Proposed Development on the environment resulting from—	3. Type and characteristics of the potential impact The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard to the	Section 6- Type and Characteristics of Potential Effects

Schedule 7A information (Planning and Development Regulations)	Annex III of EIA Directive (Road Regulations)	Section of this EIA Screening Report where this is addressed
(a) the expected residues and emissions and the production of waste, where relevant, and (b) the use of natural resources, in particular soil, land, water and biodiversity.	impact of the project on the factors specified in Article 3(1), taking into account: (a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected); (b) the nature of the impact; (c) the transboundary nature of the impact; (d) the intensity and complexity of the impact; (e) the probability of the impact; (f) the expected onset, duration, frequency and reversibility of the impact; (g) the cumulation of the impact with the impact of other existing and/or approved projects; (h) the possibility of effectively reducing the impact.	

3.3 Step 3: Formal Screening Determination

Following the results of Step 1 and Step 2 outlined in Sections 3.1 and 3.2 respectively, a formal screening determination must take place. Sections 4 to 6 provides the relevant details under each of the criteria set out in Schedule 7A of the Planning and Development Regulations 2001 to 2018. This information will assist the competent authority / roads authority, CCC to make a screening determination under Section 103 of the Planning and Development Regulations 2001 to 2018.

The final determination on EIA Screening will be made by CCC, as the competent authority / roads authority.

4. Location of the Proposed Development

This Section describes the location of the Proposed Development, in accordance Schedule 7A of the Planning and Development Regulations 1993, as amended, and Annex III of the EIA Directive.

a. Generally describe the location of the site and its surroundings:

The Proposed Development is situated within Carrigaline, which is located approximately 10km south east of Cork City Centre. Refer to Figure 1 for the location of the Proposed Development. The study area of the Proposed Development comprises roads, footpaths and other areas of hardstanding in Carrigaline. Detailed descriptions of each road are included in Section 5.

There is the Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road with the Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John adjacent to Church Road, and the Kingdom Hall of Jehovah's Witnesses adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl adjacent to Strand Road.

Refer also to the drawings in Appendix A which shows the detail of the Proposed Development.

The Road Network

Phase 1B comprises the integrated pedestrian and cycle network proposed for Carrigaline under TPREP. This network will be connected to the existing cycle and pedestrian facilities on Bóthar Guidel, which will be further enhanced as part the TPREP programme of works.

Phase 1B comprises six routes as shown in Figure 1 and as follows:

- 1. Cork Road between Ballinrea Road and Ballea Road;
- 2. Church Road / Rock Road between Fernhill Road and Cork Road;
- 3. Rose Hill between Forest Hill and Ferney Road;
- 4. Lower Kilmoney Road from the entrance to Dairygold Co Op Superstore to Abbey View and from Castle Heights to Upper Kilmoney Road;
- 5. Ballea Road from Ballea Woods to Cork Road; and
- 6. Strand Road from Main Street to the southern edge of Bothar Guidel Bridge.

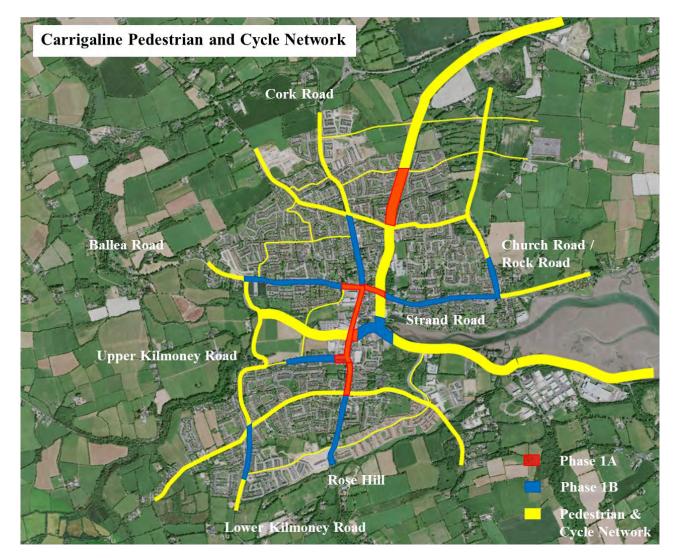


Figure 1: Phase 1B routes in the context of the proposed Carrigaline TPREP pedestrian and cycling network

The road network through and within the immediate vicinity of the study area is presented in Figure 1.

The roadway generally consists of a single lane of traffic in each direction. Footpaths are not continuous throughout the network and often are on only one side of the carriageway. There is minimal existing cycle infrastructure on any roads.

Existing signalised junctions within the Proposed Development site are as follows:

• Ballea Road / Pottery Road

This is a three-arm signalised junction with two arms on Ballea Road and one arm on Pottery Road. Pedestrian crossings are in place at all crossings.

• Kilmoney Road Lower / Pottery Road

This is a three-arm signalised junction with two arms on Kilmoney Road Lower and one arm on Pottery Road. Pedestrian crossings are in place at all crossings.

• Strand Road / Main Street

This is a three-arm signalised junction with two arms on Main Street and one arm on Strand Road. Pedestrian crossings are in place at two of the three crossings.

• Church Road / Bothar Guidel

This is a four-arm signalised junction with two arms on Bothar Guidel, and two arms on Church Road. Pedestrian crossings are in place at all crossings.



Figure 2: Location of the Proposed Development (Source: Google Maps) | not to scale

- a. Is the project located within, close to or has it the potential to impact on any site specified in Article 103(3)(a)(v) of the Regulations:
 - European site
 - NHA/pNHA
 - Designated Nature Reserve
 - Designated refuge for flora or fauna
 - Place, site or feature of ecological interest, the preservation, conservation, protection of which
 is an objective of a development plan/ local area plan/ draft plan or variation of a plan.

The Proposed Development is adjacent to the Cork Harbour Special Protected Area (SPA) and the Owenboy River proposed natural heritage area (pNHA) along Strand Road.

There are no nature reserves, or nature designated areas of refuge for flora or fauna at or near the site of the Proposed Development. The site is considered to have features of ecological interest due to its proximity to an SPA and pNHA. Refer to Section 6.2 for further information on potential impacts.

b. Are there any other areas on or around the location that are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies (including riparian areas and river mouths), the coastal zone and the marine environment, mountains, forests or woodlands, that could be affected by the project?

As illustrated in Figure 1 and Figure 2 above, the site of the Proposed Development is located in an urbanised area in Carrigaline. As such there are no other areas on or around the site that are considered important or sensitive for reasons of their ecology. Further information on the habitats that are present within the site of the Proposed Development is provided in Section 6.2.

c. Is the proposal likely to be highly visible to many people? Are there any areas or features of high landscape or scenic value on or around the location, or are there any routes or facilities that are used by the public for recreation or other facilities which could be affected by the proposal?

The Proposed Development is a main thoroughfare through an urbanised area in Carrigaline. The study area of the Proposed Development is surrounded by a range of commercial, community and residential premises, as described in Section 6.1. The proposal will therefore be visible to many people. Refer to Section 6.4 for an appraisal of potential landscape and visual impacts.

The site is not considered to be of significant landscape character significance.

d. Are there any areas or features of historic or cultural importance on or around the location that could be affected by the project?

There are no Architectural Conservation Areas (ACAs) located within proximity of the site. There are eight protected structures and monuments within 50m of the Proposed Development as described in Table 8.

Refer to Section 6.3 for further information on historic features.

e. Are there areas within or around the location which are densely populated or built-up, or occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities that could be affected by the proposal?

The study area of the Proposed Development is surrounded by a range of commercial and community premises (described in Section 6.1). Those directly adjacent to the Proposed Development include the Owenabue Medical Centre, the Kingdom Hall of Jehovah's Witnesses, the Carrigaline Playground, St Mary's Church, Carrigaline United AFC, Dunnes Stores, the Carrigaline Fire Station, Lidl, and the Church of Our Lady and Saint John. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road.

Access will be maintained throughout the construction phase to all commercial and community facilities. Consultation will be undertaken as necessary with affected receptors during the construction phase through consultation to manage the potential disruption to traffic and access to the schools.

f. Are there any areas within or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, that could be affected by the proposal?

The site of the proposed work does not contain important, high quality or scarce resources that could be affected by the proposal. Owenboy River passes alongside the Strand Road portion of the Proposed Development.

The Cork Harbour SPA is located adjacent to the Proposed Development at Strand Road and has the potential to be impacted by the Proposed Development.

g. Are there any areas within or around the location which are already subject to pollution or environmental damage, and where there has already been a failure in environmental standards that could be affected by the proposal e.g. the status of water bodies under the Water Framework Directive?

There are no known areas within or around the site of the Proposed Development which are already subject to pollution or environmental damage, or where there has already been a failure in environmental standards that could be affected by the proposal.

The Owenboy River passes alongside the Proposed Development and the Owenboy Estuary is adjacent to Strand Road. The Owenboy River is identified as a river waterbody that is 'At Risk' in terms of achieving its Water Framework Directive (WFD) objectives. The Owenboy Estuary is a transitional waterbody that is also 'At Risk' of achieving the WFD Objectives.

h. Is the site located in an area susceptible to subsidence, landslides, erosion, or flooding which could cause the proposal to present environmental problems?

The site of the Proposed Development is not located in an area susceptible to subsidence, landslides, erosion or flooding which could cause the proposal to present environmental problems.

The site is low-lying and located within the built-up area of Carrigaline.

The Owenboy River and the Owenboy Estuary are both situated alongside the Proposed Development. Carrigaline is also situated within the Lee, Cork Harbour and Youghal Bay catchment areas. The Lee catchment Flood Risk Assessment Management Study (CCC, 2014) noted that sections of the land where the Proposed Development is situated are within 1:1000 or 0.1% AEP Flood Extent for fluvial flooding.

The FRA carried out for Phase 1A Main Street also indicates that the Proposed Development is not within area at high risk of pluvial flooding or groundwater flooding. However, the Proposed Development is partially located within the 0.5% and 0.1% AEP Flood Extent for tidal flood risks.

i. Are there any additional considerations that are specific to this location?

No additional considerations in addition to those previously identified are specific to this location.

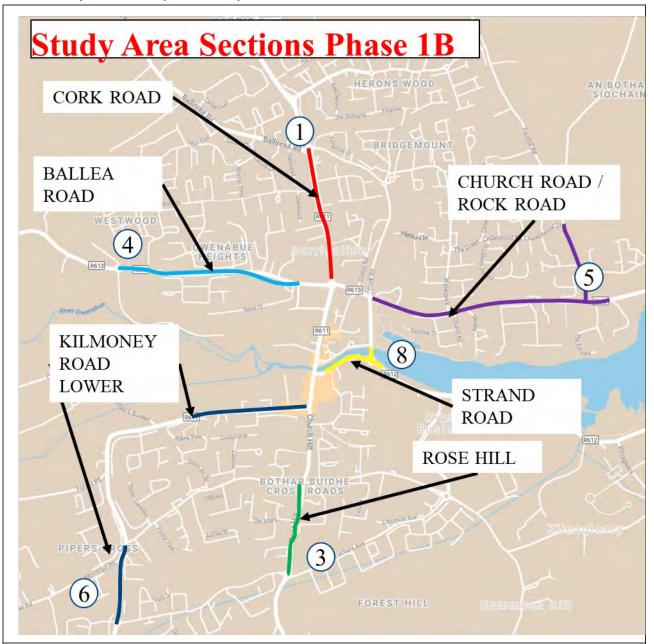
5. Characteristics of the Proposed Development

5.1 Overview of the Proposed Development

The Proposed Development is situated along six roads within the town of Carrigaline. The roads included within the Proposed Development include the following:

- Cork Road from the Ballinrea Road Roundabout at the northern edge south to the Ballea Road Roundabout;
- Rose Hill from the Kilmoney Road Upper Junction in the north to the Rose Hill Junction to the south:
- Ballea Road from the Mill Road Roundabout (to the west) to the Junction at Nova Court (in the east):
- Church Road from the Cork Road/R612 Junction (to the west) to the Junction with an unnamed road east of The Estuary. This section also extends from the Junction at Church Road and Rock Road in the south to the Junction of Fernhill Road and Laurelmount Drive in the north;
- Kilmoney Road Lower between the entrance to Dairygold Co Op Superstore and Abbey View, and between the junction at Kilmoney Road Upper the Castle Heights/Wheatfields/Kilmoney Road Roundabout in the south; and
- Strand Road from Dunnes Stores to the southern edge of Bothar Guidel Bridge and east to Owenabue Sail Garden.

The description of the Proposed Development and associated upgrades at each of the above locations is described in Table 5 below.



Area 1 - Along Cork Road

Area 1: Project Description

Along Cork Road:

- Provision of a quiet street treatment along Glenwood Estate;
- Provision of a segregated shared space on the western side of the road;
- Provision of entry treatment at the junction of Main Street / Ballea Road / Church Road and Cork Road; and
- Provision of raised entry treatments along Cork Road.

Area 3 – Along Rose Hill

Area 3: Project Description

- Provision of a segregated cycle track southbound on Rose Hill;
- Adjustment to roundabout to negate northbound traffic from travelling on to Rose Hill;
- Provision of raised entry treatments along Rose Hill; and

• Provision of a quiet street treatment along Whiteoaks / Clover Hill.

Area 4 - Along Ballea Road

Area 4: Project Description

- Provision of segregated cycle tracks on both sides of the road;
- Introduction of formalised car parking outside Carrigaline AFC;
- · Provision of raised entry treatments along Ballea Road; and
- Provision of continuous footpaths on both sides of road for entire Ballea Road section.

Area 5 - Along Church Road / Rock Road

Area 5: Project Description

- Provision of segregated cycle tracks on both sides of the road for majority of route, including provision of shared space infrastructure at pinch points on Church Road;
- Provision of continuous footpaths on both sides of road for Church Road section and majority of Rock Road section;
- · Introduction of formalised and reconfigured car parking outside Church and School on Church Road;
- Provision of raised entry treatments along Church Road / Rock Road; and
- · Introduction of formalised parking along Kilmoney Road Lower.

Area 6 - Kilmoney Road Lower

Area 6 - Project Description

- Provision of segregated cycle tracks on both sides of the road from the entrance to Dairygold Co Op Superstore to Abbey View and from Castle Heights to Upper Kilmoney Road, including provision of shared space infrastructure at pinch points on Kilmoney Road Lower;
- Provision of continuous footpaths on both sides of road along Kilmoney Road Lower from the entrance to Dairygold Co Op Superstore to Abbey View and from Castle Heights to Upper Kilmoney Road;
- Provision of raised entry treatments along Kilmoney Road Lower from the entrance to Dairygold Co Op Superstore to Abbey View and from Castle Heights to Upper Kilmoney Road; and
- Provision of protected style junction on Kilmoney Road Lower / Pottery Road

Area 8 - Strand Road

Area 8 - Project Description

- Provision of segregated cycle track on north side of the road for majority of route, including provision of shared space infrastructure upon entry on to Main Street; and
- Provision of signalised junction at Owenabue Bridge / Strand Road junction.

5.2 Description of the Proposed Development

a. The size and design of the whole of the Proposed Development (including any demolition works):

The Proposed Development encompasses an area of 7.42ha in Carrigaline (See Figure 1).

Details of the construction of the Proposed Development as well as the operational phase of the Proposed Development are provided below.

5.2.1 Construction

Construction works for the Proposed Development will include excavation of the street surfacing and subbase, removal of existing surface materials and repaving of the street to include installation of new footpaths and cycle-tracks. This will also enable the installation of new utilities including additional drainage into the existing drainage network, street lighting, and the planting of trees and native plants to enhance biodiversity. The maximum depth of excavation will be 1,000mm below existing surface level, with the majority of the excavations approximately 500mm below the existing surface level. The detailed design stage will inform the exact location of trees and structural supports (i.e., for street lighting). This will ensure that existing utilities or other underground structures are not impacted during the installation of the necessary foundations.

Barriers and hoardings will be installed to restrict access and to provide safety measures for workers and pedestrians. Excavation works will be carried out on a phased basis to limit the impact on the activity of the street. This phasing will be set out in detail in an agreed Construction & Environmental Management Plan (CEMP) and Traffic Management Plan (TMP), which will be implemented for the duration of the construction phase.

Access to the properties where construction works are proposed will be maintained at all times during the construction phase. This may require night works for final surfacing, utility installation in the vicinity of property entrances, etc. Details of this scheduling will be confirmed as part of the CEMP and TMP.

The scale of construction proposed will require the temporary closure of traffic lanes to facilitate a safe working area. However, to limit the impact, the road closure will occur in sections and one lane will always be available for traffic.

Existing bus routes will be maintained. However, some temporary diversions may need to be accommodated for part of the works. Temporary relocation of bus stops will be required to facilitate construction works at their existing locations.

Some localised dust, surface-water and noise emissions may be generated during the construction phase however these will not be significant due to the relatively short duration of the works (approximately six to eight months), the low level of construction vehicles/plant and construction staff required to carry out the works, the nature of the works proposed and the narrow construction footprint along trafficked roads.

It is envisaged that a construction compound with associated office space will potentially be provided at a location away from the Owenboy river and the Cork Harbour Special Protection Area (SPA). The exact location of the construction compound will be established during detailed design and will be agreed with CCC and restrictions on the location included in the CEMP.

Noisier activities will be phased and planned to ensure that the nearest noise sensitive receptors do not experience significant disturbance. Surface water run-off will tie into the existing drainage system with excess surface water run-off on Strand Road will be diverted through existing stormwater drainage systems for dispersal into the Owenboy River and Owenboy Estuary. The extent of the works (in an urbanised area) is relatively small, excavations are shallow (max 1,000mm), dewatering is not envisaged and any construction run-off that is generated will be minor and will enter the existing surface water drainage system. The type of construction works proposed are not complex in nature, they are well understood, therefore significant environmental emissions are not predicted.

The Contractor will be required to develop and implement the CEMP at the outset to ensure that environmental impacts are managed and kept to a minimum.

5.2.2 Demolition

No demolition works will be undertaken as part of the construction of the Proposed Development.

5.2.3 Operation

The vision of the Proposed Development is to create an exemplary network of pedestrian and cycle tracks throughout the town of Carrigaline. The design of the Proposed Development has developed in line with existing plans within the Carrigaline TPREP including the Phase 1A works and the Bothar Guidel Pedestrian Bridge. The resulting network will deliver active travel routes for pedestrians and cyclists to reduce the dependency of car travel throughout the town.

Key drivers of this vision are the provision of improved facilities for pedestrians and cyclists. These include improved junction design for safer crossings, less waiting time, improved urban landscape and urban design elements and additional cycle parking.

During construction, new integrated streetscape SuDS features including tree pits and raingardens will be installed to manage surface water run-off. As part of the landscape design, improvements to local biodiversity will be introduced including the planting of new trees and native wildflowers in rain gardens (see Section 6.2). Additionally, integrated seating facilities are designed into the above gardens to create a significantly improved public realm. An increase in street lighting fixtures is proposed to improve the safety of residents and visitors to Carrigaline.

b. Other existing or permitted projects (including under other legislation that is subject to EIA) that could give rise to cumulative effects:

An application has been granted conditional permission for the construction of 2 no. dwellings on Cork Road (Planning Reference: 206794). Permission has been granted for a residential development 130m south of the Ballea Roundabout for 72 two-storey houses and all ancillary development works (Planning Reference: 214818). Permission has also been granted for Lidl to develop a new 2,540m² food store and car park comprising 212 no. surface car parking spaces (Planning Reference: 215966). The Lidl development also consists of the demolition of the previous food store. Additionally, permission has also been granted for the construction of 2 no. two-storey dwellings adjacent to Church Road (Planning Reference: 215154).

As the Proposed Development constitutes Phase 1B of the Carrigaline TPREP, consideration has been given to the works proposed under the Phase 1A and Bothar Guidel Pedestrian Bridge developments.

c. Use of natural resources, in particular land, soil, water and biodiversity:

Will construction or the operation of the proposal use natural resources such as land, soil, water, materials or energy, especially any resources which are non-renewable or are in short supply?

The majority of the Proposed Development area consists of existing hardstanding within Carrigaline consisting of road surface and footpath. Habitats which are situated within the Proposed Development boundaries are listed in Section 6.3.

Some energy will be required for the operation of construction compounds, construction lighting etc. However, the amount of energy required to facilitate the Proposed Development is not considered to be significant. Additionally, the natural resources (e.g., concrete and asphalt) required during the construction phase of the Proposed Development is not anticipated to be significant.

There may be some requirement for water usage at the site; for welfare facilities or indeed for dust prevention, in the event that there is any stockpiling of material on site. However again, any water use on site is not expected to be significant and would not be outside what would usually be expected for works of this nature.

The operational phase energy usage is not anticipated to vary greatly from the existing energy requirements.

d. Production of waste:

Will the proposal produce solid wastes during construction, operation, or decommissioning?

There will be some waste generated on site. Standard domestic waste will be generated in construction compounds and welfare facilities. This will be segregated at source, removed from site and disposed of in a suitable licenced facility.

There will be some Construction and Demolition (C&D) waste generated from the Proposed Development, in the form of some asphalt and/or concrete. The quantities of C&D waste are again, not expected to be significant and will be removed from site and recycled where possible or disposed of in a suitably licenced facility.

Generation of waste during the operational period will give rise to small amounts of waste due to ongoing maintenance and upkeep requirements including relaying of asphalt at designated intervals. However, the level of waste generated for the operational period is not anticipated to be significant.

e. Pollution and nuisances:

Will the proposal release pollutants to ground or surface water, or air (including noise and vibrations) or water, or lead to exceeding environmental standards set out in other Directives?

The Proposed Development is located in Air Quality Zone B as Carrigaline falls within the boundaries of the Cork Conurbation. The closest air quality monitoring station to the Proposed Development is located adjacent to Church Road within Carrigaline Playground. Historic data can be gathered from the next nearest site located at Cobh approximately 7.3km east of the Proposed Development which also has an AQIH rating of 1. Historic monitoring of Cobh indicates that $PM_{2.5}$ levels from January 2023 to June 2023 remain below recorded emission levels in 2010 with a reading of approximately $7.45\mu g/m3$.

From a noise perspective, all streets within the site boundaries are mapped as part of the CCC Agglomeration Strategic Noise Maps. Lden values along the streets within the Proposed Development predominantly range from 50-55dB and 70-74dB on the Strategic Noise Maps. Lnight values range from 55-54dB throughout the majority of the Proposed Development to 60-64dB within the boundaries of the road corridor. Considering the above readings, the baseline noise emanating from the nearby roads surrounding the site is considered to be already quite high.

There is potential for noise to be generated during the construction phase due to construction traffic and machinery operation. However, noise emissions are not expected to be significant. Standard working hours of 0700 – 1800 Monday to Friday and 0800-1400 on Saturday will apply to all works. Night-time and Sunday working may be required to facilitate street works that cannot be undertaken during daytime / evening conditions. The planning of such works by the appointed contractor will take place in consultation with CCC and will have consideration for sensitive receptors, in particular any nearby residential areas.

Refer to Section 6 for further information on potential environmental effects.

f. Major accidents and disasters:

In accordance with scientific knowledge, is there a risk of major accidents and/or disasters which are relevant to the project, including those caused by climate change?

Given the scale and nature of the proposed excavation works, there is not considered to be any risk of major accidents and/or disasters which are relevant to the project.

The Contractor will ensure that the Proposed Development is carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). There is a low probability that accidents will occur as the construction works are standard in nature and well understood. Normal good construction practice will ensure that the risk of accidents will be low. It is envisaged that the risk of accidents, having regard to substances or technologies used is very low and therefore will not result in significant environmental effects.

g. Risks to human health, for example due to water contamination or air pollution:

As identified in Section 4.2.3(e) above, the Proposed Development is not expected to give rise to the release of pollutants to ground, surface or ground water, or air which will lead to exceeding environmental standards set out in other Directives.

Refer to Section 6.1 for an assessment of the potential for effects on human health.

6. Type and Characteristics of the Potential Impacts

This Section describes the types and characteristics of potential impacts, in accordance with Section (B)(3) of Form 3 of the OPR Practice Note PN02- Environmental Impact Assessment Screening.

6.1 Population and Human Health

As outlined previously, the Proposed Development site is located in an area of commercial, residential, educational and amenity value. Sensitive receptors are located near and adjacent to the Proposed Development area. Those in direct proximity to the Proposed Development include the Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road. The Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John are adjacent to Church Road. The Kingdom Hall of Jehovah's Witnesses is adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl which are all adjacent to Strand Road.

There will be no net loss of parking spaces throughout the Proposed Development.

During the construction phase, there will be some minor disruption to nearby residents, road users and pedestrians during the proposed works and some noise and dust emissions. However, best construction practice will be implemented to ensure that noise and dust emissions will be kept within the required limits. Refer to Section 6.7 and 6.8 for further information on potential air and noise emissions.

There will be construction traffic associated with the construction of the Proposed Development. However, it is not proposed to fully close any road during daytime hours and one-way shuttle traffic management systems will be implemented where required. As these impacts will be limited and short in nature, significant negative impacts arising from traffic disruption are not anticipated for population and human health.

Vehicular access will be maintained, in so far as practicable, to existing car parks, properties and all the sensitive receptors described above. There will, however, be times whereby access is restricted to facilitate the works. The contractor will liaise with those properties impacted in advance of the works to inform them of the temporary traffic management arrangements. As these impacts will be localised and of short duration, no significant adverse impacts to sensitive receptors are anticipated.

There is potential for a slight negative, temporary effects on the sensitive receptors described above which are located within the vicinity of the Proposed Development during the construction phase as a result of minor disruption and nuisance.

However, the Proposed Development provides an integrated pedestrian and cycle network which will improve accessibility throughout Carrigaline whilst promoting active travel alternatives. The works along Kilmoney Road and Rose Hill will improve the network to incorporate footpaths on both sides of the existing road network with enhanced cycle-tracks introduced throughout the Proposed Development.

Therefore, an overall positive effect on population and human health is likely to occur during the operational phase of the Proposed Development.

6.2 Biodiversity

The Proposed Development consists of main thoroughfares through Carrigaline consisting of hardstanding surfaces such as road surfaces and footpath. There are scattered grass verges throughout the Proposed Development. Overall, it can be concluded that the land within the boundaries of the Proposed Development area is of low ecological value.

An Ecological Impact Assessment was carried out by Arup in September 2023 and concluded that the habitats within the Proposed Development boundary include Flower Beds and Borders (BC4), Stone Walls and Other Stonework (BL1), Buildings and Artificial Surfaces (BL3), Tidal Rivers (CW2), Amenity Grassland (Improved) (GA2), Dry Meadows and Grassy Verges (GS2), Scattered Trees and Parklands (WD5), Hedgerow (WL1), Treeline (WL2), Riparian Woodland (WN5), and Ornamental Non Native Shrub (WS3) under Fossit Habitat Classification.

In addition, as a result of the construction phase of the Proposed Development, limited tree and hedgerow removal will be required throughout the site. In total, there will be a net loss of 7 trees and approximately 396.5m of hedgerow which was identified in the EcIA as of low-negligible significance. A breakdown of tree and hedgerow removal is provided in Table 6.

Table 6: Vegetation Removal within the Proposed Development

Section of Proposed Development	Approx. potential trees affected (No.)	Proposed tree planting (No.)	Approx. potential hedgerow removal (m)	Proposed Hedgerow planting (m)
Cork Road	1	0	0	185.4
Ballea Road	37	15	132.9	0
Church Road	10	12	173.7	75.9
Rock Road	6	12	108.8	0
Rose Hill	2	0	235.6	0
Kilmoney Road	12	22	101.21	93.77
Strand Road	0	0	0	0
Total	68	61	752.2m	355.7m

In accordance with Section 40 of the Wildlife Act 1976 (as amended 2000) the tree works will be scheduled outside of the nesting season (1st of March to 31st of August). It is noted that there will be no vegetation removal within close proximity of the Cork Harbour SPA on Strand Road. Following the EcIA, the design of the Proposed Development was updated to incorporate measures to achieve Biodiversity Net Gain (BNG). These include 200m of new treelined hedgerow with an additional 150m new species rich treelined hedging using plants at least 2 years old, or 75m of new species rich treelined hedging using whips at least 2 years old with mature trees no more than 15m apart.

The EcIA determined that there were a number of potential roost features (PRFs) and mining bee colonies within proximity to the Proposed Development. These are indicated in Figure 3 below. Whilst the Proposed Development is likely to impact on the mining bee colonies, it is noted that the PRFs are situated outside the Proposed Development boundaries are not likely to be impacted. As a precaution, the design of the Proposed Development incorporates the use of bat boxes throughout the development to provide additional roost features for the species identified in Table 7. In addition, measures to enhance local efforts to conserve bees including the installation of Bee Posts and Bee Banks has been throughout the Proposed Development have been embedded into the overall design.

In addition, following the recommendations raised in the EcIA, the Proposed Development has embedded further design options to enhance local biodiversity which includes the creation of habitat piles using deciduous woodland felled during the construction phase for the benefit of the common frog and invertebrate species. The planting of hedgerows and treelines as identified above will also benefit red squirrels, pine martens and west European hedgehogs



Figure 3: Bat PRFs and Bee Colonies within 30m of the Proposed Development

Green infrastructure is also incorporated into the landscape design to provide planters and rain gardens throughout the design. The raingardens and native wildflower gardens are designed with new tree planting are included throughout the Proposed Development and will provide a benefit to the biodiversity within Carrigaline. More information on the proposed landscape design is provided in Section 6.4.

The National Biodiversity Data Centre (NBDC) website (<u>www.biodiversityireland.ie</u>) contains a mapping tool that indicates known records of legally protected species within a selected OS 2km grid square. The site is located within squares W76G, W76L and W76F and data on these squares was downloaded from the website on 23rd May 2023. These are illustrated below in Figure 4.

Ireland Ltd

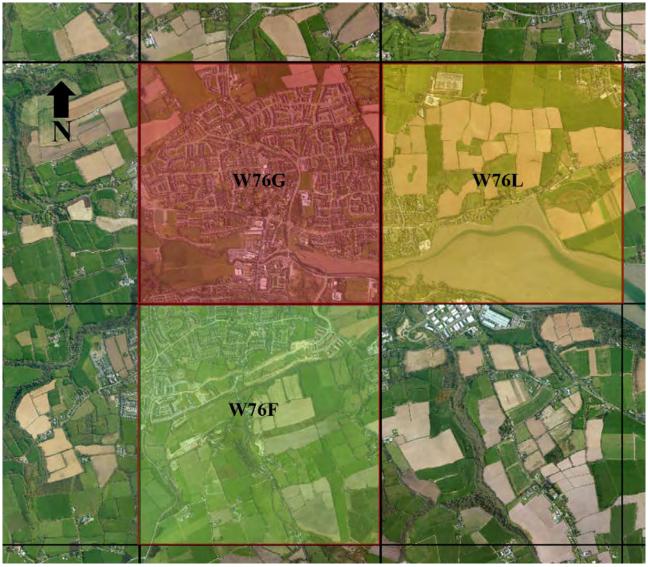


Figure 4: Grid Squares W76G. W76L and W76F (2km²)

It is noted that this list is not exhaustive, and an absence of records does not imply that they are not present within the given area. The results are included in Table 7. However, due to the level of existing hardstanding within the boundaries of the Proposed Development, it is not likely that any of these species are reliant on habitats present within the existing road corridor.

Table 7: Protected Species

Grid Reference	Associated Route(s)	Protected Species
W76G	Cork Road, Church Road, Ballea Road, Strand Road, Kilmoney Road	Common Frog (Rana temporaria) Black-headed Gull (Larus ridibundus) Eurasian Curlew (Numenius arquata) Great Cormorant (Phalacrocorax carbo) Mallard (Anas platyrhynchos) Red-billed Chough (Pyrrhocorax pyrrhocorax) Common Seal (Phoca vitulina) Grey Seal (Halichoerus grypus) Eurasian Badger (Meles meles) European Otter (Lutra lutra) West European Hedgehog (Erinaceus europaeus)

Grid Reference	Associated Route(s)	Protected Species
W76L	Church Road, Rock Road	Black-headed Gull (<i>Larus ridibundus</i>) Black-tailed Godwit (<i>Limosa limosa</i>) Common Greenshank (<i>Tringa nebularia</i>) Common Shelduck (<i>Tadorna tadorna</i>) Common Wood Pigeon (<i>Columba palumbus</i>) Dunlin (<i>Calidris alpina</i>) Eurasian Curlew (<i>Numenius arquata</i>) Eurasian Oystercatcher (<i>Haematopus ostralegus</i>) Eurasian Teal (<i>Anas crecca</i>) Eurasian Tree Sparrow (<i>Passer montanus</i>) Great Black-backed Gull (<i>Larus marinus</i>) Great Cormorant (<i>Phalacrocorax carbo</i>) Herring Gull (<i>Larus argentatus</i>) Jack Snipe (<i>Lymnocryptes minimus</i>) Little Egret (<i>Egretta garzetta</i>) Northern Lapwing (<i>Vanellus vanellus</i>) Pine Marten (<i>Martes martes</i>)
W76F	Kilmoney Road, Rose Hill	House Sparrow (Passer domesticus) West European Hedgehog (Erinaceus euopaeus)

The invasive species Japanese Knotweed (*Fallopia japonica*), European Rabbit (*Oryctolagus cuniculus*) and Himalayan Honeysuckle (*Leycesteria* Formosa) were also recorded within this these grid squares.

There are two designated sites within 15km of the proposed works, one Special Protection Area (SPA) and one Special Conservation Area (SAC). The nearest designated site is the Cork Harbour SPA which is adjacent to the Proposed Development at Strand Road. The site of the Proposed Development is not within the boundary of any Natura 2000 sites (See Figure 5 below). There are no significant air, noise nor water/ground emissions arising from the Proposed Development site. As such there will be no direct or indirect effects on any Natura 2000 sites.

The majority of vegetation removal will be undertaken within Grid Reference W76F which has the potential to impact the House Sparrow (*passer domesticus*). However, as noted above the tree removal will take place outside the nesting season and given the urban setting of the construction works, impacts will be of short duration and are not anticipated to be significant in nature.

There is a slight loss to the existing tree population and hedgerows as a result of the Proposed Development. There is also a slight impact to existing mining bee colonies. However, the Proposed Development incorporates the provision of native wildflower and raingardens, bee posts and bee banks, bat boxes, and replanting of hedgerows and treelines to achieve BNG which will reduce any potential impacts on biodiversity. In addition, the Proposed Development will not impact on habitats of high local value. Therefore, it is not envisaged that the Proposed Development will result in significant effects on biodiversity.

A Report for Screening for Appropriate Assessment was carried out and it was concluded that:

- There is no potential for the Proposed Development to significantly impact on Natura 2000 Sites;
- The Proposed Development is not directly connected with, or necessary to the conservation management of any Natura 2000 sites;
- The Proposed Development, alone or in combination with other projects, is not likely to have significant effects on Natura 2000 sites in view of their conservation objectives.

Courtbrack Dungourne Legend Farranastig Kilquane Coole East Rahanisky Ballygibbon Ballymartin — New Carrigaline RLB Gort Ballynaclasha Great Island Channel SAC Sallybrook Cork Harbour SPA Broomfield Boolypatrick R579 West □□□ 15km Buffer Muskerry Golf Course R615 Ballyvolane Midleton N25 R622 Carrigtwohill N8 Mount Desert Cork Coolyduff R618 170 m N22 Ballincollig NZ7 Greenfield R629 Passage West Great Killumney Ardarostig Ballyr Island Ballymore Ballycurreen Windsor N71 Monkstown Cobh Cork Airport Ballyhank Aghada Ballynagrumoolia Buckstown * Churc Ringaskiddy 200 m Ardra Beg Ballygarvan R613 154m Ballinhassig Shanagrai gue Kilnaglery Crosshaven Coolatopder Ballyhooleen Finure Inch Kilmoney Lisfehill Roches Point R600 Riverstick Innishannon Shanavally Minane Bridge Derrynagasha Ballyfeard Killeen Belgooly _117 m **DunderNow** Ratharoon R607 Reanieshouse Kinsale Ballindashet, Clashroe R600 131 m 113 m Ballinspittle Esri, Intermap, NASA, NGA, USGS, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc., METI/NASA, USGS

Figure 5 Natura 2000 Sites within 15km of the Proposed Development | not to scale | Google Earth

6.3 Historical, Cultural and Archaeological Heritage

The Proposed Development is not bordering any Zones of Archaeological Constraint or Zones of Archaeological Interest.

The potential impacts on archaeological features are assessed within a 50m corridor as guided by the National Roads Authority's *Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes* (2005).

Table 8 below provides a list of all recorded monuments and structures which were included within the Sites and Monuments Record (SMR) within 50m of the Proposed Development. National monuments and buildings listed by the National Monuments Service (NMS) in the National Inventory of Architectural Heritage (NIAH) within 50m of the Proposed Development are also listed.

As outlined in Section 5.2.1, the nature of the proposed works is not intensive and are standard in practice. Additionally, consultation will be undertaken with the NMS prior to undertaking any works near sites listed that are directly adjacent to the proposed development to reduce any potential impacts arising from the Proposed Development.

In addition, a Preliminary Archaeological and Architectural Report was prepared by Lane Purcell Archaeology to inform on the design of the Carrigaline TPREP. It concluded that there are no Architectural Conservation Areas sites in proximity to the proposed Route Option Stages, and there are no registered archaeological or architectural sites situated within the proposed Route Option Stages.

Therefore, the Proposed Development will not have any significant impact on historical, cultural or archaeological heritage within Carrigaline.

Table 8: Archaeological Features in Carrigaline

Register	Name	Registration Number	Location
NIAH	The old Rectory	20987048	30m east of Cork Road
NIAH	Church of our Lady and St John	20987050	Adjacent to Church Road
SMR / NIAH	St Mary's Church (Carrigaline)	CO87-036003 & 20987011	Adjacent to Church Road
SMR / NIAH	Church	CO97-036002 & 20987059	Adjacent to Church Road
SMR	Baptismal Font	CO87-142	Adjacent to Church Road
SMR	Graveyard	CO87-036001	Adjacent to Church Road
NIAH	Rock House	20987010	35m east of Rock Road

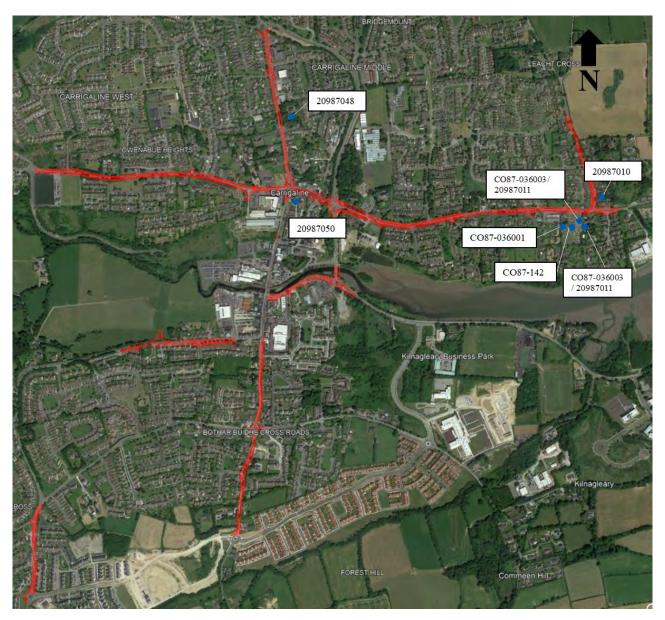
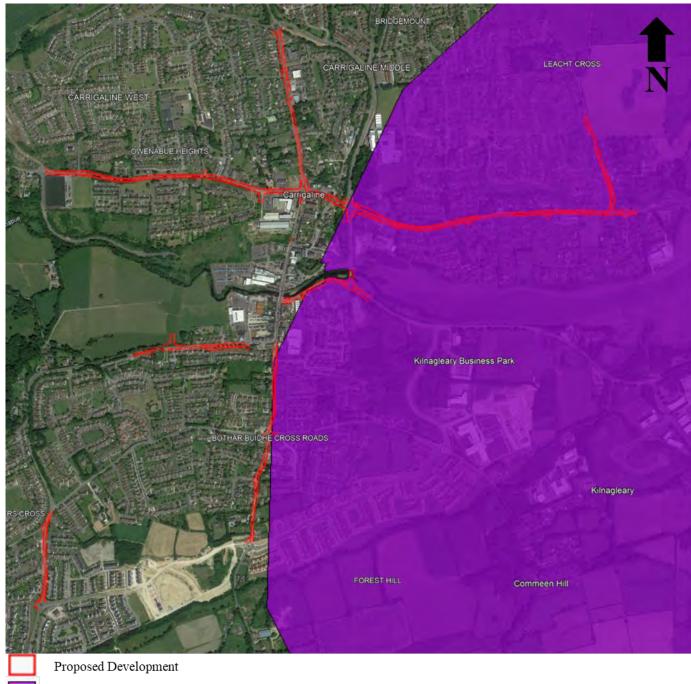


Figure 6 NIAH sites in close proximity to the Proposed Development | not to scale | Google Earth

6.4 Landscape and Visual

The site of the Proposed Development is described in Section 4. The landscape in the immediate vicinity of the Proposed Development is low-lying and mostly developed. However, within the Cork County Development Plan, the eastern boundaries of Carrigaline are designated as High Value Landscape as noted in Figure 7 below. Additionally, there is a Scenic Route (S58) which connects Carrigaline to Crosshaven and commences on Strand Road within the Proposed Development.



High Value Landscape

Figure 7: High Value Landscape (Source: Cork County Development Plan 2022-2028)

It is likely that there will be temporary negative effects on the surrounding landscape during the construction phase of the Proposed Development. Physical effects to all roads described in Section 5 are predicted and will involve the excavation of the street and removal of existing surface materials, repaying the street, installation of new street lighting etc. During the construction phase, the presence of construction vehicles, signage, machinery etc. will likely result in a minor temporary negative effect to the landscape and visual setting.

However, due to the short duration of the proposed works, the Proposed Development is not anticipated to give rise to any significant negative effects to Landscape and Visual.

Following construction, the Proposed Development will combine green infrastructure with public realm design to create attractive community spaces. This will be achieved through the introduction of rain gardens, integrated seating, improved street lighting and the planting of native plants to create a safe for residents and visitors to enjoy. To illustrate the extent of public realm enhancements envisioned as part of the Proposed

Development, Landscape Design drawings have been prepared which accompany the Part 8 application and should be referenced in conjunction with this section. Following the construction of the Proposed Development, there will be a positive impact from a landscape and visual perspective during the operational lifecycle.

As such, it can be concluded that there will be a positive landscape and visual effect as a result of the Proposed Development.

6.5 Soils and Geology

The bedrock in the proposed works areas is classified as 'White Strand Formation' which consists of sandstone and interbedded pyritic mudstone, 'Waulsortian Limestones' which are classified as Massive unbedded lime-mudstone, and 'Cuskinny Member' which is classified as Flaser-bedded sandstone and mudstone according to the Geological Groundwater Data Viewer. The underlying soils are classified as 'made ground' according to the GSI Groundwater Data Viewer. The groundwater aquifers in the area are classified as 'locally important aquifer – karstified' and 'locally important aquifer – bedrock' which is moderately productive only in local zones. The groundwater vulnerability of the site varies from 'Extreme' to 'High' to 'Moderate. The groundwater recharge for the site ranges from High to Extreme.

Only shallow excavations (max 1150mm) will be required during the construction of the Proposed Development. No dewatering will be required during the excavation process or during the operational phase. The Contractor will send any excavated material which cannot be re-used/recycled for disposal to a suitably licenced facility. The contractor will be required to ensure that any interim storage or waste management facilities for excavated material have the appropriate waste licences of waste facility permits in place.

It is therefore not envisaged that the Proposed Development will result in significant effects on soils and geology.

6.6 Water Quality, Hydrology and Hydrogeology

The primary water features located in close proximity to the Proposed Development are the Owenboy River (IE_SW_19O011400) and the Owenboy Estuary (IE_SW_060_1200). The Owenboy River flows into the Owenboy Estuary which in turn eventually flows into Cork Harbour (IE_SW_060_0000). The risk status of the Owenboy River is classified as 'at risk' and has a 'Moderate River Waterbody WFD Status 2016-2021. The Owenboy Estuary is classified as 'at risk' and has a 'moderate' Transitional Waterbody WFD Status 2016-2021.

As detailed previously, the extent of the works (in an urbanised area) is relatively small, excavations are shallow (max 1150mm), dewatering is not envisaged. Any construction run-off that is generated will enter the existing Cork County Council surface water drainage system as part of the Lower Harbour Sewerage Scheme. Excess surface water run-off generated on Strand Road will enter existing stormwater drainage systems where any pollutants will be filtered within the ground prior to entering Owenboy River and Owenboy Estuary. It is anticipated that surface water pollutants will be minimal due to the nature of the works and any residual pollutants entering the estuary will be minor. Furthermore, best practice construction measures such as silt and sediment controls will be installed prior to the commencement of any construction works. Thus, significant negative effects on water quality, hydrology, hydrogeology are not envisaged.

The Proposed Development is situated within the Lee River sub-catchment areas of the Lower Lee and Owenboy. A Flood Risk Assessment (FRA) was prepared for Phase 1A of the Carrigaline TPREP (Arup, 2022) which found that the Lee catchment Flood Risk Assessment Management Study (CCC, 2014) noted that sections of the land where the Proposed Development is situated are within 1:1000 or 0.1% AEP Flood Extent for fluvial flooding.

The FRA also indicates that the Proposed Development is not within area at high risk of pluvial flooding or groundwater flooding. However, the Proposed Development is partially located within the 0.5% and 0.1% AEP Flood Extent for tidal flood risks.

However, the design of the Proposed Development includes upgrades to the existing drainage system including the provision of additional gullies where required and SuDS systems (tree pits and rain gardens) to reduce the risk to acceptable levels.

Therefore, the Proposed Development will not create an increased risk of flooding elsewhere and the design of the Proposed Development is such that flooding risks can be managed effectively.

As a result, there are no potential significant impacts to water quality predicted as a result of the Proposed Development.

6.7 Air Quality and Climate

During the construction phase, the potential for dust emissions will arise in respect of excavations/plaining of road surfaces in dry weather. Dust may be raised by wind from dry surfaces and stockpiles. Air emissions from the exhausts of construction plant, machinery and haulage trucks will also be elevated during construction but are not expected to be significant.

The employment of good construction management practices by the appointed contractor for the Proposed Development will serve to minimise the risk of dust emissions. Examples of measures to be employed include the spraying of exposed earthworks during dry periods, the provision of wheel washes and sweeping of roads. A list of appropriate measures will be proposed and implemented by the Contractor in advance of the construction works. It is anticipated with the implementation of the appropriate mitigation measures, significant construction phase air quality impacts will not arise.

The Proposed Development will not give rise to increased operational traffic numbers and as such, there will be no significant air emissions from the Proposed Development. Through the provision of active travel routes through Carrigaline, it is envisaged that there will be a decrease in vehicle movements which represents a slight decrease to air emissions during the operation of the Proposed Development. A neutral to slight-positive effect on air quality and climate is therefore predicted.

During the construction and maintenance of the Proposed Development, there will be a slight increase of emissions due to the excavation, use of materials and in the general construction works required. However, these will be short-term and localised and are not anticipated to generate a significant impact. Due to the facilitation of a transition to active travel modes, it is anticipated that there will be an overall reduction to the level of vehicle movements through Carrigaline during the operation. This shift will result in a slight reduction to greenhouse gas emissions and directly aligns with the objectives outlined in Section 15 of Ireland's Climate Action Plan 2023.

Therefore, the Proposed Development has the potential for a slight positive impact to air quality and climate when operational.

6.8 Noise and Vibration

Noise will be generated during the construction of the Proposed Development due to construction traffic, construction machinery, excavation works etc. The effect of construction noise on sensitive receptors (residential dwellings) in the immediate vicinity of the site will be temporary only due to the short duration of the construction works.

There are several residential receptors immediately adjacent to the Proposed Development as listed in Section 6.1. Standard working hours of 0700 – 1800 Monday to Friday and 0800-1400 on Saturday will apply to all works. Night-time and Sunday working may be required to facilitate street works that cannot be undertaken during daytime / evening conditions. The planning of such works by the appointed contractor will take place in consultation with CCC and will have consideration for sensitive receptors, in particular any nearby residential areas.

Noise emissions will be controlled by the implementation of best practice construction methods. Examples of measures to be employed include the selection of quiet plant, not leaving plant idling and maintenance of plant to minimise noise generation. A list of appropriate measures will be proposed and implemented by the contractor in advance of the construction works.

Significant rock breaking is not envisaged, however if localised rock breaking is required this will be managed appropriately.

The main vibration source during the construction phase will be from the proposed excavation/planning works. A variety of potential vibration causing items of plant are likely to be used such as excavators, lifting equipment, rock breakers and dumper trucks.

Vibration effects will be controlled by the implementation of best practice construction methods. Examples of measures to be employed include the use of suitable vibration isolators in equipment mountings and ensuring that materials are lowered rather than dropped from heights. A list of appropriate measures will be proposed and implemented by the contractor in advance of the construction works.

It is not anticipated that there will be any increase to noise and vibration during the operational phase of the Proposed Development. With the reduction in traffic levels anticipated as a result of the Proposed Development, there is the potential for a slight positive impact to the noise and vibration environment.

No significant negative noise or vibration effects are predicted as a result of the Proposed Development.

6.9 Land Use and Material Assets

As part of the design of the Proposed Development, the incorporation of existing utilities has been considered. Additionally, there will be a net increase in public facilities such as bins and bike racks. Therefore, no significant negative effects on land use or material assets are predicted during the construction or operation phases of the Proposed Development.

The majority of the Proposed Development area consists of hardstanding consisting of road surface and footpath. The Proposed Development lies within an area which is zoned as Town Centre/Neighbourhood Centres with the objective to 'conserve and enhance the quality and character of established residential communities and protect their amenities', and Existing Residential/Mixed Residential and Other Uses with the objective to 'maintain and build on the accessibility, vitality and viability of existing town centres'. There will be no change of land use within the Proposed Development.

Services will be diverted within the road as required with minimum disturbance to sensitive receptors and surface water run-off will tie into the existing drainage system. Should the appointed contractor encounter contaminated ground during the excavation works, it will be managed appropriately and disposed of at suitably licensed and permitted facilities in accordance with the requirements of current Irish waste management legislation.

There will be no disruption to existing water supplies during the proposed works.

6.10 Cumulative Effects

The Cork County Council online planning records were consulted in May 2023.

An application has been granted conditional permission for the construction of 2 no. dwellings on Cork Road (Planning Reference: 206794). Permission has been granted for a residential development 130m south of the Ballea Roundabout for 72 two-storey houses and all ancillary development works (Planning Reference: 214818). Permission has also been granted for Lidl to develop a new 2,540m² food store and car park comprising 212 no. surface car parking spaces (Planning Reference: 215966). The Lidl development also consists of the demolition of the previous food store. Additionally, permission has been granted for the construction of 2 no. two-storey dwellings adjacent to Church Road (Planning Reference: 215154).

As the Proposed Development constitutes Phase 1B of the Carrigaline TPREP, consideration has been given to the works proposed under the Phase 1A and Bothar Guidel Pedestrian Bridge developments. The approved plans and particulars for each approved project included a CEMP which the contractor of the Proposed Development shall consult to ensure no cumulative impacts arise. The AA Screening Report (Arup, 2023) shall be consulted for best practice measures to be employed at Strand Road. However, as the construction of the Proposed Development will be undertaken on the roadside of the walls along Strand Road, no significant effects are anticipated.

The application for the Lidl development was submitted with a CEMP and CDWMP which were assessed by CCC. It was concluded that the Environment directorate considers the contents and details of the Plans were acceptable and satisfactory subject to conditions. These conditions intend to limit potential for cumulative impacts with the Proposed Development and include the following:

The operator of the site shall ensure that a Surface Water Management Plan (SWMP) for the construction phase is prepared and implemented so as to prevent and minimise the risk of silt, soiled water and/or eroded materials discharging directly into the nearby drains/channels.

The detailed Surface Water Management Plan shall detail appropriate surface water runoff containment measures to be put in place so as to prevent and minimise the risk of silt, soiled water and/or eroded materials discharging directly into the nearby drains/channels during the construction phase of the proposed development.

All watercourses in or adjacent to the works area shall be monitored on a daily basis by the Site Construction & Environmental Compliance Officer to ensure they are not being impacted by silt/sediment laden storm water run-off from works area. A record of this monitoring shall be maintained on site

The operator of the site shall ensure that all liquids and hydrocarbons stored on site during construction and operational phases of the project shall be stored in a waterproof bunded area of sufficient volume to hold 110% of the volume of the largest tank within the bund. All valves on the tanks shall be contained within the bunded area. All operations involving the loading and unloading of hydrocarbon products shall take place in this bunded area in such a manner as to avoid any pollution of waters. The bunded area shall be fitted with a locking valve which shall be opened only to discharge to a sump prior to collection for treatment off site. The operator shall provide and maintain at the facility a spill kit to deal with spillages of oils, fuels and acids.

The CEMP and CTMP shall be prepared to accommodate the requirements embedded within these developments. However, due to the short duration and standard nature of the construction works, significant cumulative effects are not anticipated.

6.11 Interaction between the above factors

The interaction of the above factors has been considered in this screening assessment. For example, noise and vibration impacts have been considered both in terms of effects on people and effects on biodiversity.

The construction phase in particular will have many interactions. Examples include the movement of soil and machinery, the level of intensity of construction activities and consequent level of disturbance.

No significant effects due to the interaction of factors are predicted.

6.12 Transboundary Effects

As described in Section 5, the site of the Proposed Development is approximately 7.42ha in size and is located in Carrigaline, Co. Cork.

The Proposed Development will be minor in nature and scale. Thus, there is no potential for transboundary effects to occur as a result of the Proposed Development.

7. Overall Conclusions

The prescribed classes of urban development and thresholds that trigger a mandatory Environmental Impact Assessment are set out in Schedule 5 of the Planning and Development Regulations, 2001 as amended. A review of the project types listed in the aforementioned Schedule 5, as amended has been carried out. The Proposed Development is a type set out in Part 2 Class 10 (b)(iv) of Schedule 5 as described previously but it does not exceed the relevant quantity, area or other limit specified in that Part. Therefore, it is a subthreshold urban development and has been screened for EIA one that basis.

The prescribed classes of roads developments and thresholds that trigger a mandatory Environmental Impact Assessment are also contained in Section 2 and Section 50 of the Roads Act 1993, as amended. A review of project types listed in Part V of the Road Regulations 1994 has been carried out. The Proposed Development does not exceed the relevant quantity, area or other limit specified within this Legislation. Therefore, it is a sub-threshold roads development and has been screened for EIA on that basis.

Arup has prepared this EIA Screening Report on behalf of CCC to determine whether an EIA is required for the Proposed Development. The information provided in this report provides details on the characteristics of the Proposed Development and its likely significant effects (if any) on the environment. This information will assist the competent authority / roads authority, CCC to undertake the EIA screening as required under the Planning and Development Regulations, 2001, as amended and the Roads Act 1993, as amended.

Based on the information provided in this report, it is the opinion of Arup that there is no significant impacts on the environment will arise from the construction or operation of the Proposed Development and that an EIA is not required.

However, the determination on EIA screening will be made by CCC.

8. References

Department of the Environment, Climate and Communications (2022) Climate Action Plan 2023

Department of Housing, Planning, Community and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018)

Department of Housing, Planning, Community and Local Government (2017) Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems;

Department of Housing, Planning, Community and Local Government (2017) Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition;

Department of the Environment, Heritage and Local Government (2003) Environmental Effect Assessment (EIA) *Guidance for Consent Authorities regarding Sub-Threshold Development*;

Dublin City Council (2022) Dublin City Council Development Plan 2022-2028

Dublin City Council (2016) Strategic Flood Risk Assessment for Proposed Variation No. 33 of Dublin City Council Development Plan 2016-2022

Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports (May 2022);

Environmental Protection Agency (2015) Advice Notes for Preparing Environmental Impact Statements Draft (September 2015);

Environmental Protection Agency (2003) Advice Notes on Current Practice in the Preparation of Environmental Impact Statements;

EPA Envision Mapping (Accessed June 2019) https://gis.epa.ie/EPAMaps/

European Commission (2017) Guidance on EIA Screening

Geological Survey of Ireland (Accessed October 2022)

 $\underline{\text{https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ebaf90ff2d554522b438ff313b0c197a\&scale=0}$

Lane Purcell Archaeology (2021) Carrigaline and Public realm Enhancement Plan Preliminary Archaeological and Architectural Report

National Inventory of Architectural Heritage (Accessed October 2022) http://webgis.buildingsofireland.ie/HistoricEnvironment/index.html

Planning and Development Act, 2000 (No. 30 of 2000).

Planning and Development Regulations, 2001 (S.I. No. 600 of 2001).

Transport Infrastructure Ireland's (TII) (2014), Good Practice Guidance for the Treatment of Noise during the Planning of National Road Scheme

Transport Infrastructure Ireland (TII) formerly National Roads Authority (NRA) (2011) *Guidelines for Treatment of Air Quality during the Planning and Construction of National Road Schemes*, TII, Dublin, Ireland

UK Highways Agency (2007) Design Manual for Roads and Bridges (DMRB), Highways Agency, London, UK

EIA Screening

9. Screening Checklist

The potential environmental effects associated with the Proposed Development have been outlined in the previous sections of this report.

The EC *Guidance on EIA Screening* (EC, 2017) provides a checklist to help users decide whether EIA is required based on the characteristics of a project and its environment. This screening checklist is included in Table 9 below.

Table 9: Screening Checklist to determine if EIA is required based on the characteristics of a project and its environment

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No – Why
1. Will construction, operation or decommissioning of the project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc.)?	No	No There will be no change in land use as a result of the Proposed Development.
2. Will construction or operation of the project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes	Services such as water and power will be required during the construction phase. Mobile generators will be used during the construction phase while a permanent power supply will be required during the operational phase of the Proposed Development. It is not considered that there will be a significant use of these resources as part of the Proposed Development. Construction materials will include concrete, steel, pipework, signage etc. Energy will also be required during the operational phase of the Proposed Development. However, this is not expected to be significant. A Report for Screening for Appropriate Assessment was carried out and it has been determined by Arup that there is no potential for significant impacts on any Natura 2000 sites and therefore it is the view of Arup that it is not necessary to undertake any further stage of the Appropriate Assessment process.
3. Will the project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes	No. The types of standard construction materials that will be used will not be harmful to human health or the environment. The contractor will ensure that the proposed works are carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). It is envisaged that the risk of accidents, having regard to substances or technologies used is very low and therefore will not result in significant environmental effects.

Brief Project Description	Yes/No	Is this likely to result in a significant impact
		Yes/No – Why
4. Will the project produce solid wastes during construction or operation or decommissioning?	Yes	No. Inert construction waste generated will be removed from the site areas and disposed of at a suitable licensed facility. The production of waste will be managed in accordance with the relevant waste legislation. Should the appointed contractor encounter contaminated ground during the excavation works, it will be managed appropriately and disposed of at suitably licensed and permitted facilities in accordance with the requirements of current Irish waste management legislation.
5. Will the project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?	No	No. It is expected that dust will be emitted during construction and construction fumes from construction plant and vehicles will arise during the construction phase, but these will be minimal. See Section 6.7 and 6.8 for details on the mitigation measures to be implemented.
6. Will the project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	Yes	No. Standard construction noise is expected during construction activities. No significant rock breaking will likely be required. Vibration effects will be controlled by the implementation of best construction practice. See Section 6.9 for details on mitigation measures which will be implemented in relation to noise and vibration.
7. Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	Yes	No. During the construction phase, there will be minor emissions to surface water in the form of silt/pollutants during excavations. However, this will be minimal and will dilute very quickly through existing drainage systems. With the installation of SuDS infrastructure, it is anticipated that there will be a positive impact to the surface water baseline.
8. Will there be any risk of accidents during construction or operation of the project which could affect human health or the environment?	Yes	No. A "Project Supervisor for the Construction Stage" will be appointed to manage safety issues during construction.

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No – Why
9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	Yes	No. The Proposed Development will have a positive effect on people living, working and visiting the area as there will be improved facilities for pedestrians and cyclists and an improved public realm throughout Carrigaline.
10.Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Yes	As part of the Carrigaline TPREP, Phase 1A development, and the proposed works on the Bothar Guidel bridge have the potential for cumulative effects with the development of Strand Road. In addition, Lidl is currently situated to the south on Strand Road and has received planning permission for the demolition of the existing foodstore, and the construction of a new 2,540m² foodstore with a car park comprising 212 no. surface car parking spaces. These projects have stipulated a requirement for a CEMP to be prepared prior to the undertaking of any construction. Similarly, the Contractor of the Proposed Development shall produce a CEMP which considers the measures provided in each of the above developments to reduce any significant impacts to the surrounding environment.
11. Is the project located within or close to any areas which are protected under international, EU, or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	Yes	No. The proposed works at Strand Road are in close proximity to Cork Harbour SPA (004030) and the Owenboy River pNHA (001990). However, the works are standard in nature and best construction practice will reduce the potential for any likely significant effects to the conservation status of these areas. There is no tree or hedgerow removal required for the completion of the works on Strand Road which further reduces any potential impacts to the above areas. In addition, silt and sediment controls shall be included within the CEMP with particular emphasis on the construction works at Strand Road to prevent any surface water runoff. Refer to Section 6.2 and Section 6.3 for further details.
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	No	No Refer to Section 6.2 for details.

Brief Project Description	Yes/No	Is this likely to result in a significant impact
		Yes/No – Why
13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	Yes	No Refer to Section 6.2 for details.
14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location that could be affected by the project?	Yes	The primary water feature located nearby the Proposed Development is the Owenboy River and Owenboy Estuary. However, the extent of the works (in an urbanised area) is moderate in size, excavations are shallow (max 1000mm), dewatering is not envisaged and any construction run-off that is generated will enter the existing surface water drainage system and will be diluted before treatment at the Shanbally WwTP. Excess surface water run-off on Strand Road will be diverted through existing stormwater drainage systems for eventual dispersal into the Owenboy River and Owenboy Estuary. Any surface water pollutants will be minimal and will be filtered out through the ground prior to entering the water networks. Therefore, significant negative effects on water quality, hydrology, hydrogeology are not envisaged.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	No	No
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	Yes	No A Construction Traffic Management Plan will be implemented for the duration of the construction works in order to minimise any disruption to traffic flow on the road network at and surrounding the Proposed Development areas.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Yes	No A Construction Traffic Management Plan will be implemented in order to limit disruption to road users during the construction works. Access to all roads will be maintained throughout the duration of the construction phase. The Proposed Development is expected to reduce congestion on local roads through the town as mode shift towards walking and cycling occurs.
18. Is the project in a location where it is likely to be highly visible to many people?	Yes	No. The Proposed Development is concerned with the reconfiguration of a road network and therefore there will be no

Brief Project Description	Yes/No	Is this likely to result in a significant impact
		Yes/No – Why
		structures of significant height and will therefore not be visible beyond the immediate site boundaries. The only above ground structures to be installed are new street lighting columns.
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	No	No. Section 6.3 for details.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	No	No The Proposed Development is generally located in areas of existing hardstanding.
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Yes	No. There are a number of facilities in close proximity to the Proposed Development Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road. The Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John are adjacent to Church Road. The Kingdom Hall of Jehovah's Witnesses is adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl which are all adjacent to Strand Road. Access to these facilities will be maintained during the construction phase. Air emissions will be generated during the construction phase however these will be minimal and appropriate mitigation measures will be put in place. The Proposed Development is already located in a built-up busy environment and therefore, noise emissions are not expected to be significant.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	No	No
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Yes	No. There are a number of facilities in close proximity to the Proposed Development Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road. The Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John are adjacent to Church Road. The Kingdom Hall of Jehovah's Witnesses is adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of

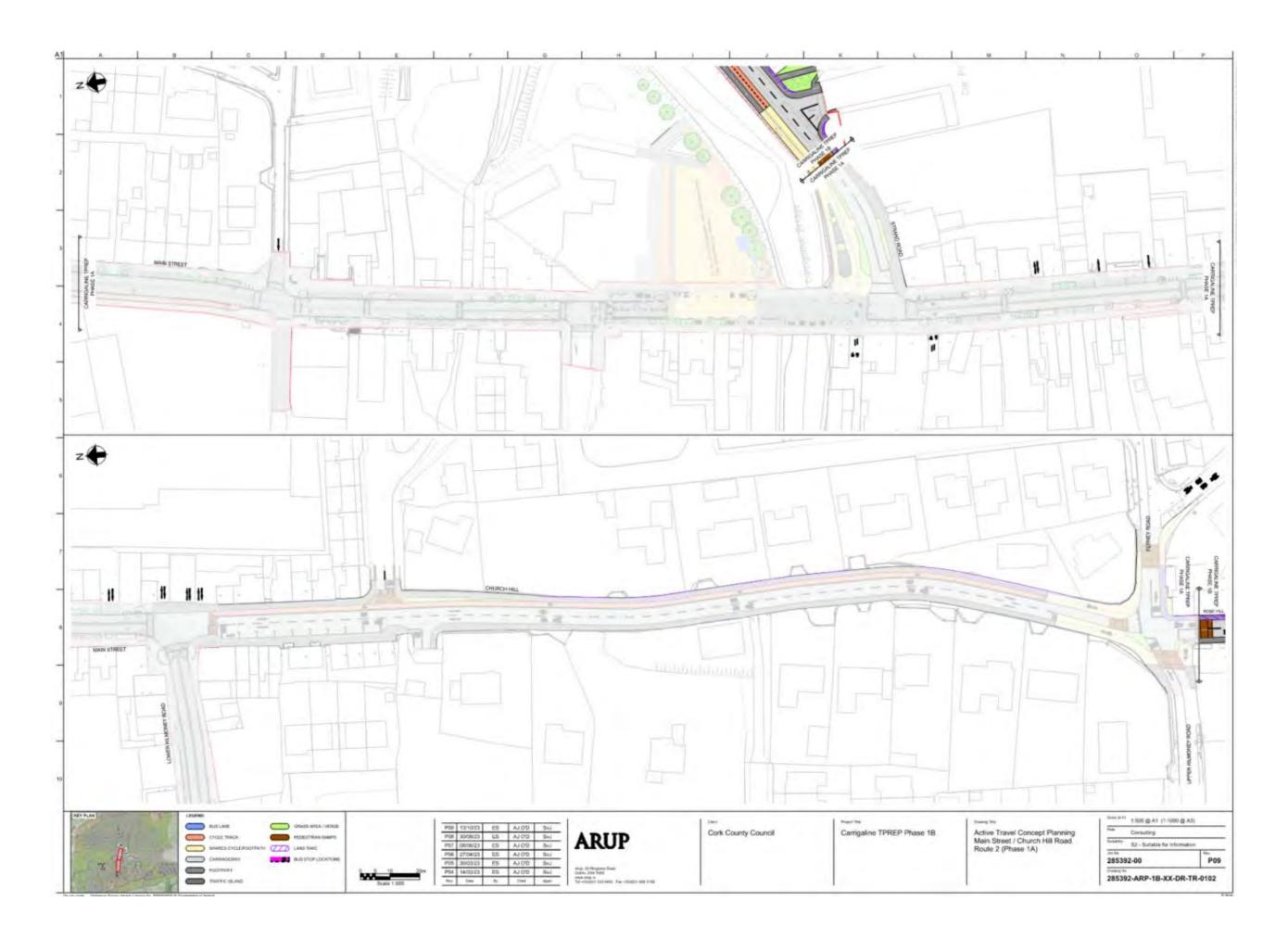
Brief Project Description	Yes/No	Is this likely to result in a significant impact
		Yes/No – Why
		Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl which are all adjacent to Strand Road.
		Access to these facilities will be maintained during the construction phase.
		Air emissions will be generated during the construction phase however these will be minimal and appropriate mitigation measures will be put in place.
		The Proposed Development is already located in a built-up busy environment and therefore, noise emissions are not expected to be significant.
24. Are there any areas on or around the	Yes	No
location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?		There are a number of facilities in close proximity to the Proposed Development Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road. The Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John are adjacent to Church Road. The Kingdom Hall of Jehovah's Witnesses is adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl which are all adjacent to Strand Road.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	No	No
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	No	No
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	Yes	No The Proposed Development is situated within the Lee River sub-catchment areas of the Lower Lee and Owenboy. A Flood Risk Assessment (FRA) was prepared for Phase 1A of the Carrigaline TPREP (Arup, 2022) which found that the Lee catchment Flood Risk Assessment Management Study (CCC, 2014) noted that sections of the land where the Proposed Development is

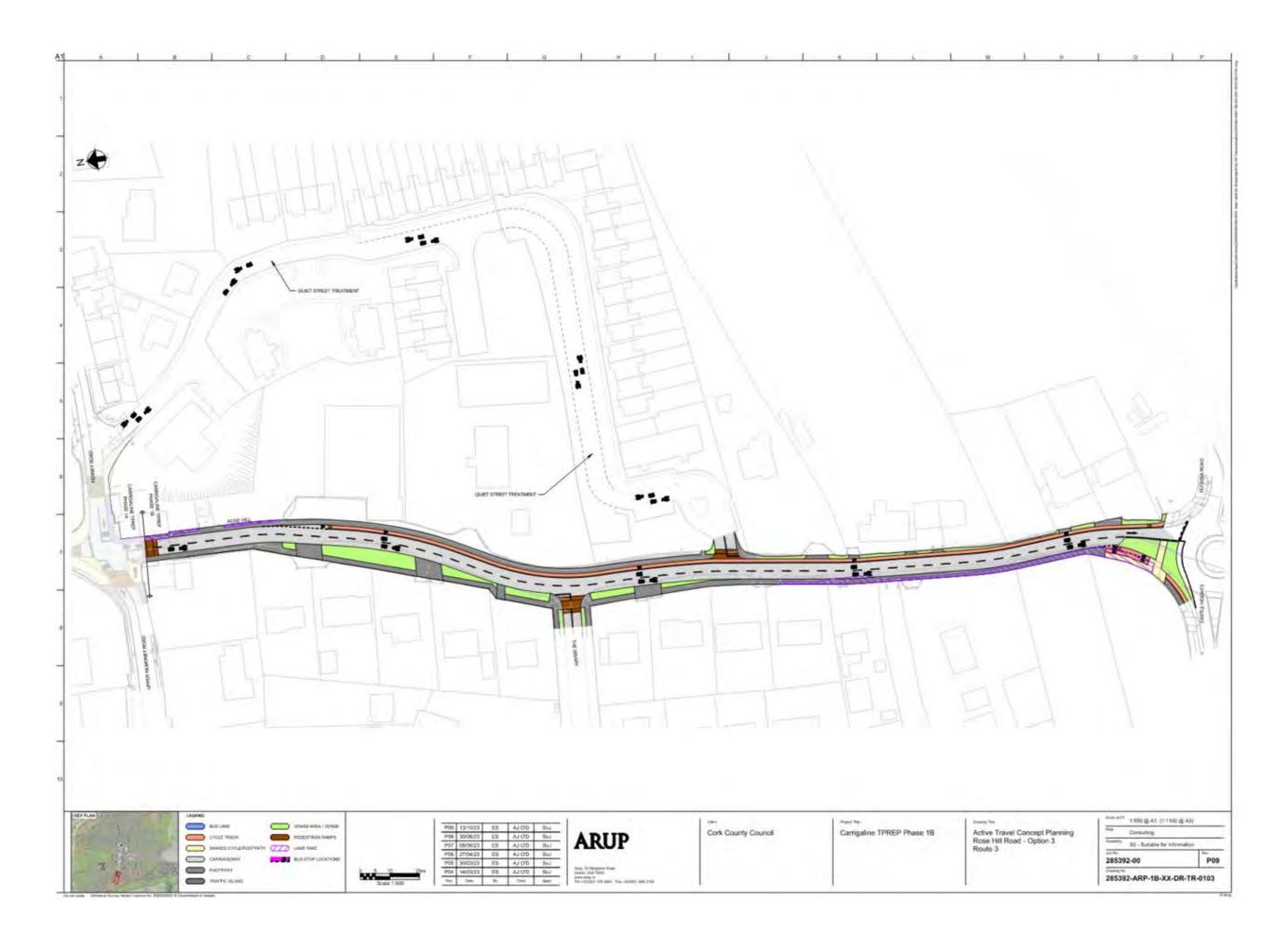
Brief Project Description	Yes/No	Is this likely to result in a significant impact
		Yes/No – Why
		situated are within 1:1000 or 0.1% AEP Flood Extent for fluvial flooding.
		The FRA also indicates that the Proposed Development is not within area at high risk of pluvial flooding or groundwater flooding. However, the Proposed Development is partially located within the 0.5% and 0.1% AEP Flood Extent for tidal flood risks.
		However, the design of the Proposed Development includes upgrades to the existing drainage system including the provision of additional gullies where required and SuDS systems (tree pits and rain gardens) to reduce the risk to acceptable levels.

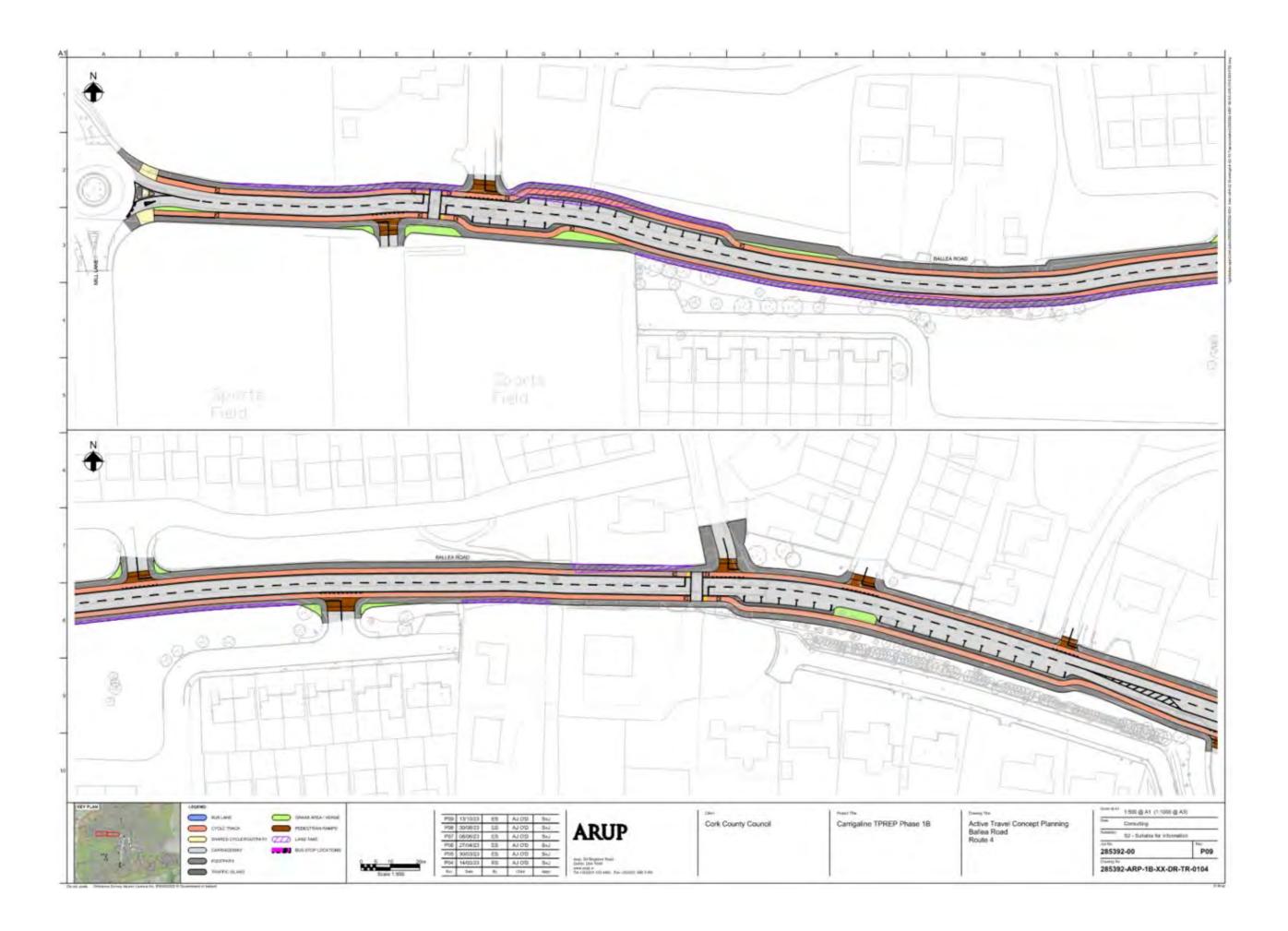
Appendix A

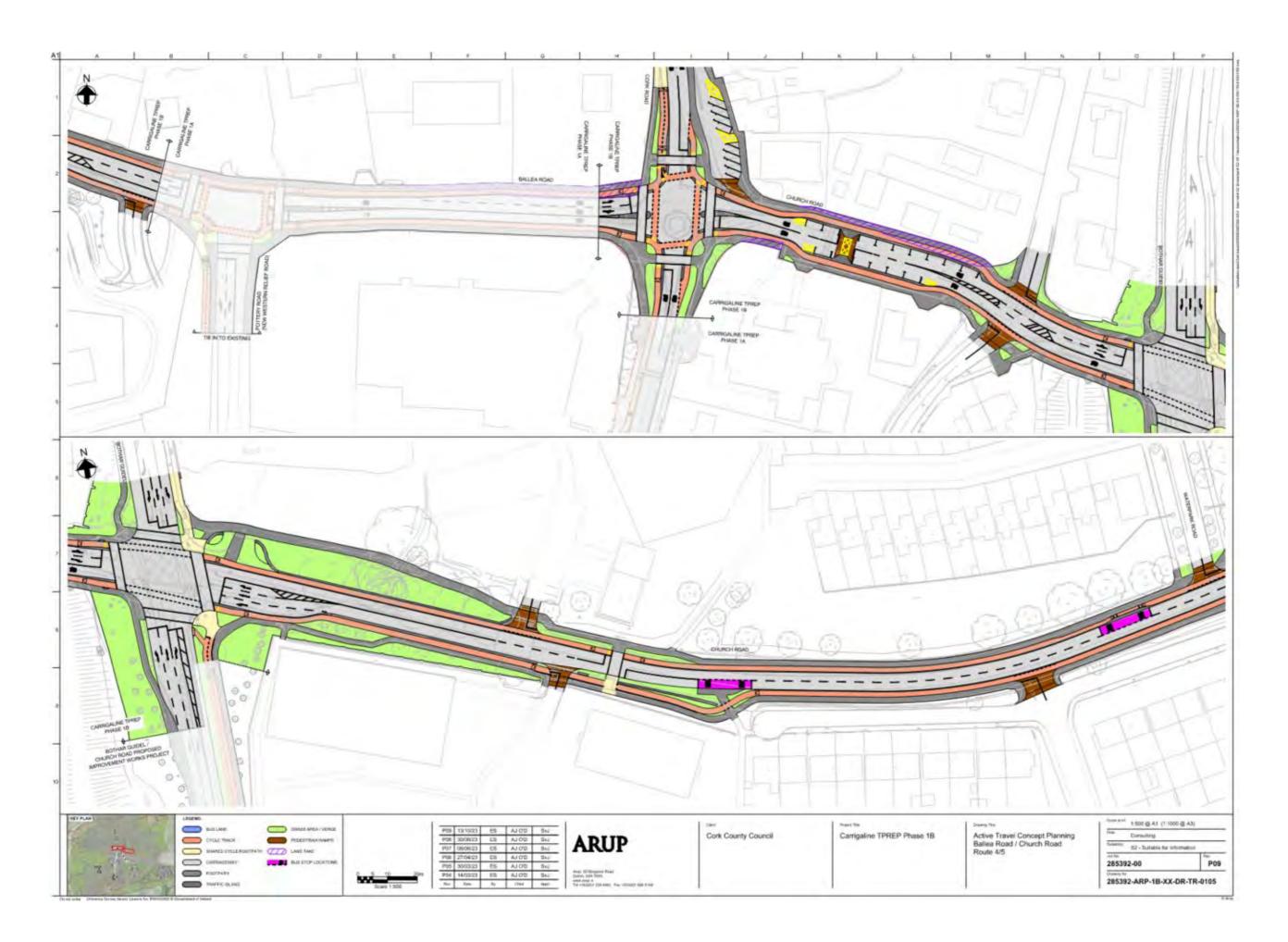
Carrigaline TPREP Phase 1B Drawings



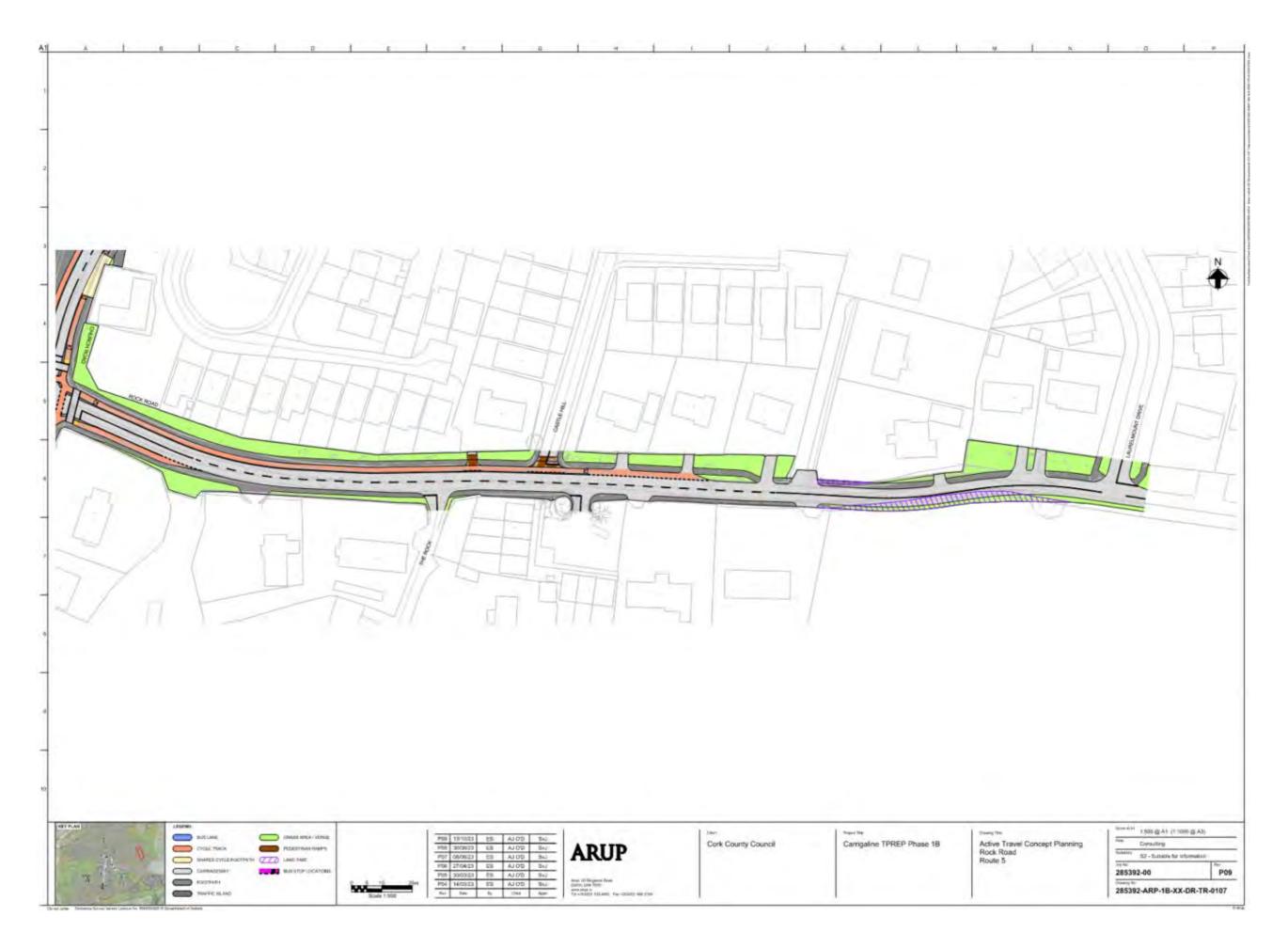


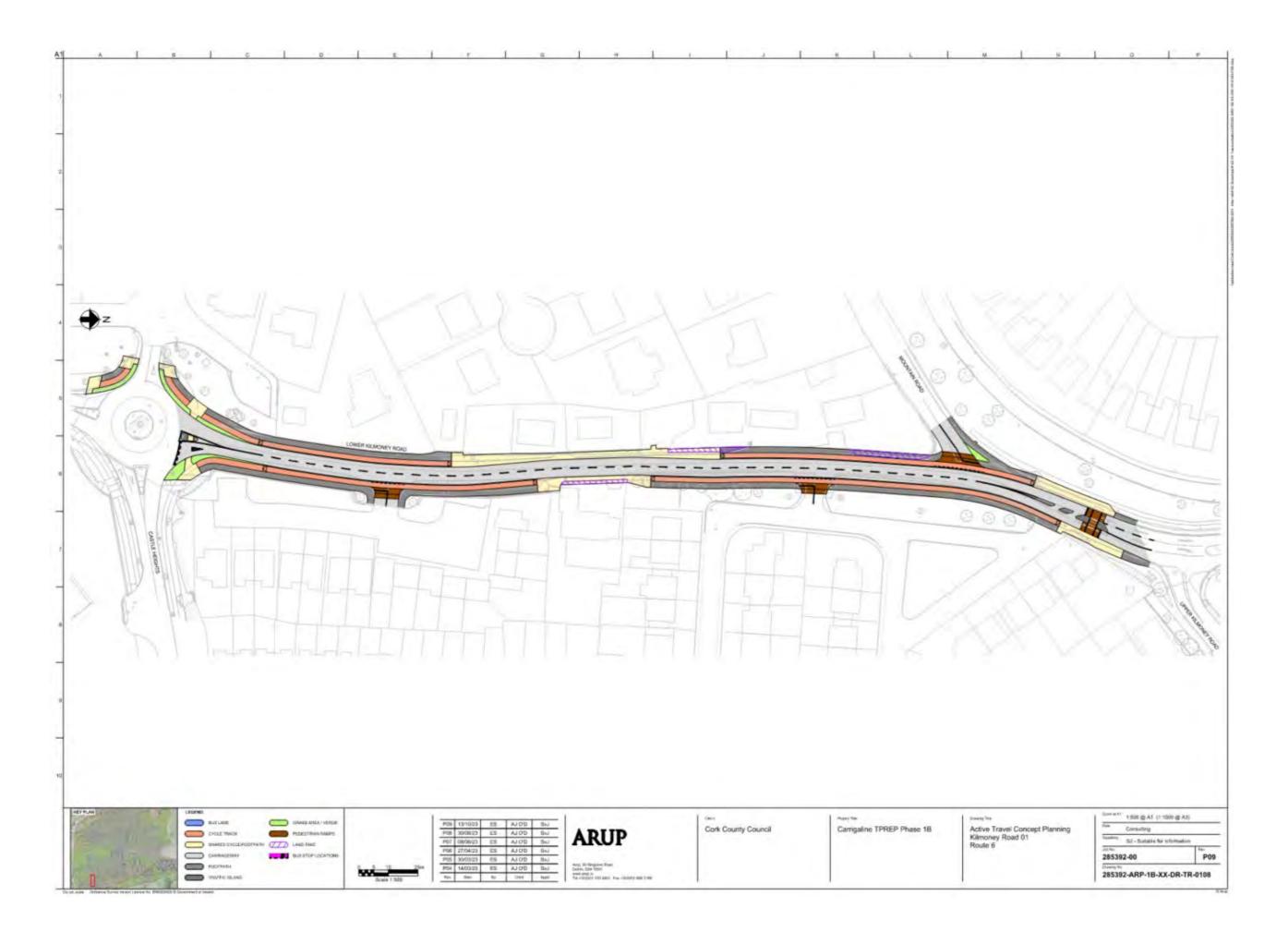


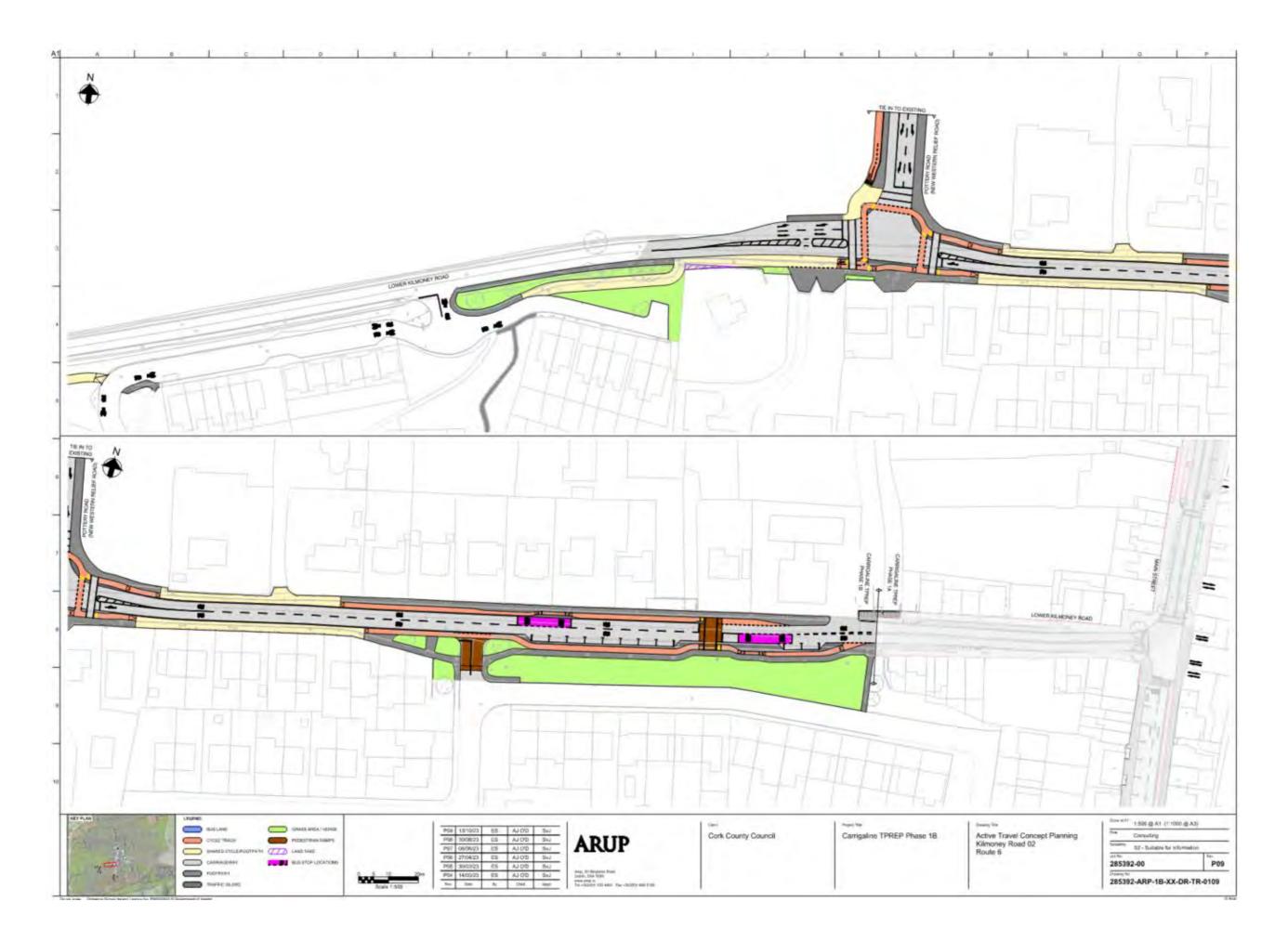


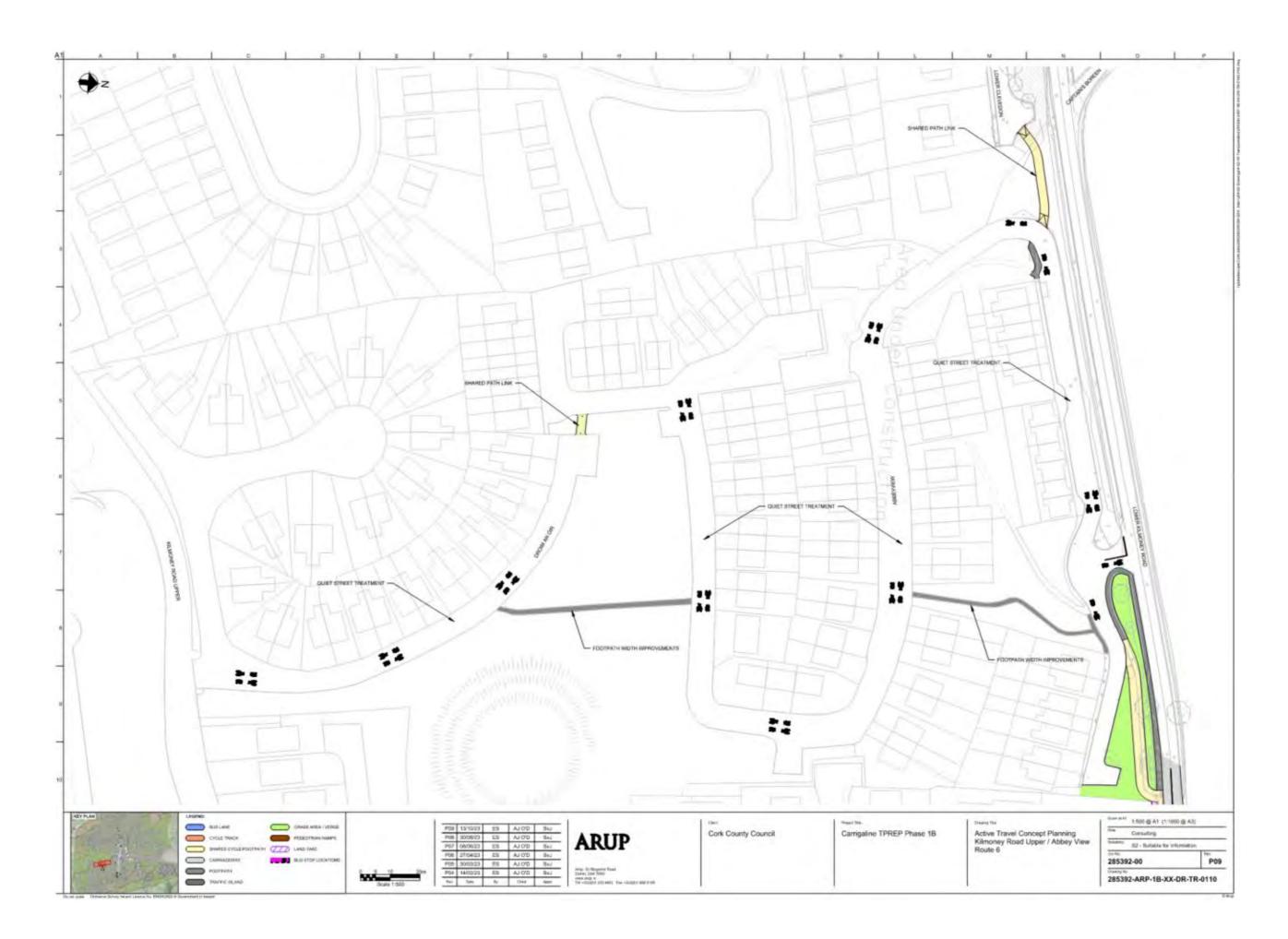


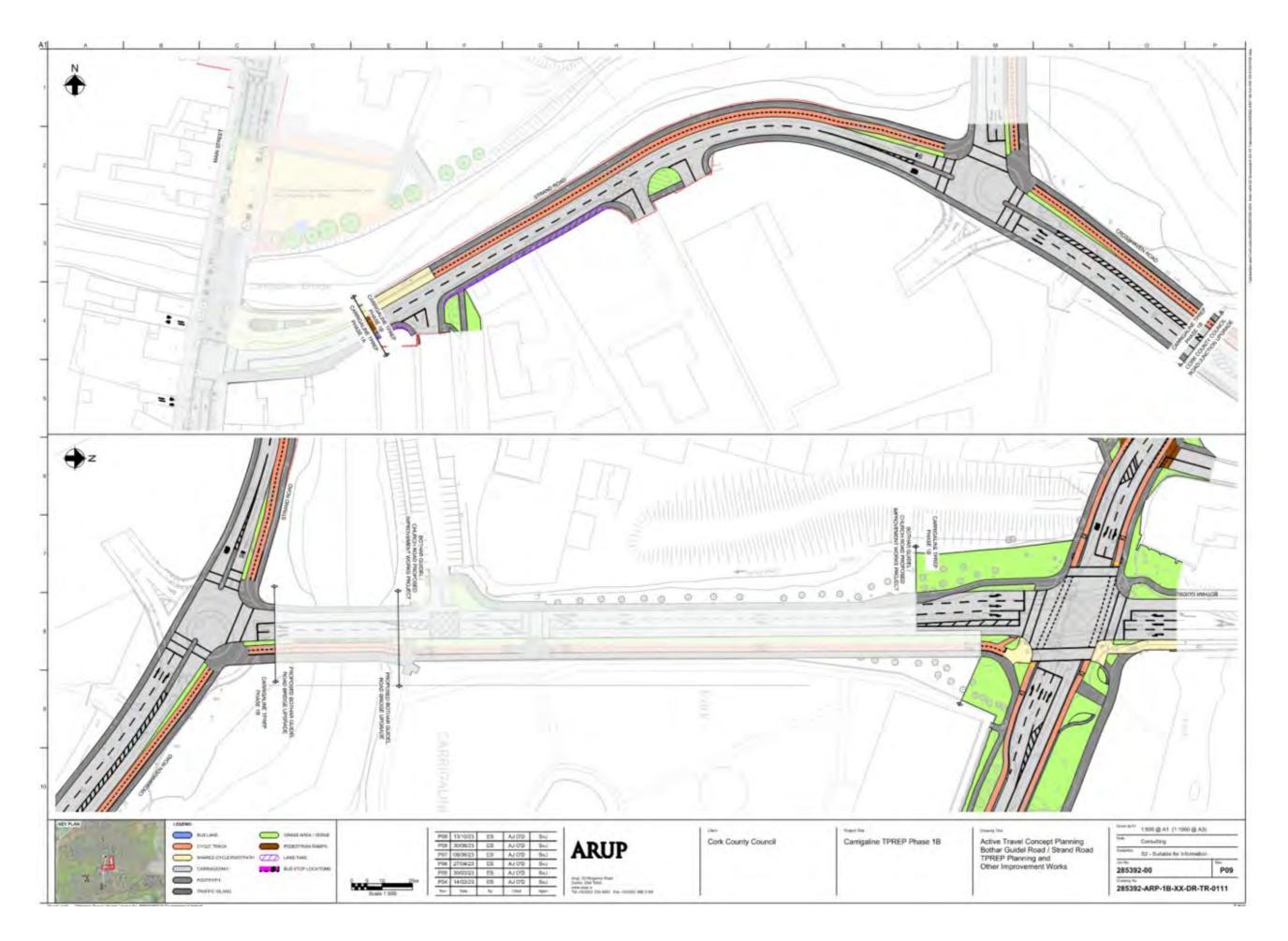












Appendix B

Form 3 – OPR Screening Checklist

Screening Determination:		
A: Case Details:		
Planning Register Reference:		
Development Summary:	Point Junction Improve	ment Scheme
	Yes / No / N/A:	Comment (if relevant):
Does the application include information specified in Schedule 7A?	Yes	
Other relevant information submitted:	N/A	
Does the application include a NIS and/or other reports to enable AA screening?	Yes	Report for the Purposes of AA Screening
Is an IED/IPC/Waste Licence or Waste Water Discharge Authorisation (or review of licence/ authorisation) required from the EPA for the subject development?	No	
If YES has the EPA been consulted?	N/A	
Have any other relevant ¹ assessments of the effects on the environment been carried out pursuant to other relevant Directives –for example SEA or AA?	AA	Report for the Purposes of AA Screening Prepared
Examination:		
1. Characteristics of Proposed Development		
(including demolition, construction, operation, or decommissioning):		

¹ Relevant assessments are those which have a significant bearing on the project.

Screening Determination:	
	If relevant, briefly describe the characteristics of the development (i.e. the nature and extent):
a. The size and design of the whole of the Proposed Development (including any demolition works):	The site of the Proposed Development is approximately 7.42ha. The Proposed Development is described in Section 4 of this report and will comprise the excavation of the existing Cork Road, Rose Hill, Ballea Road, Church Road, Kilmoney Road, and Strand Road in Carrigaline. The Proposed Development will include the provision of improved pedestrian and cycle access throughout town of Carrigaline.
b. Other existing or permitted projects (including under other legislation that is subject to EIA) that could give rise to cumulative effects:	The CCC Planning website was consulted in order to ascertain if there are any other existing or permitted projects that could give rise to cumulative effects, when considered alongside the Proposed Development. Projects of note are identified in Section 6.10 of this report. Given that there are no likely significant effects identified as a result of the Proposed Development, no cumulative effects are identified.
c. Use of natural resources, in particular land, soil, water and biodiversity: Will construction or the operation of the proposal use natural resources such as land, soil, water, materials or energy, especially any resources which are non-renewable or are in short supply?	The majority of the Proposed Development area consists of hardstanding throughout Carrigaline consisting of road surface and footpath. Some energy will be required for the operation of construction compounds, construction lighting etc. However, the amount of energy required to facilitate the Proposed Development is not considered to be significant. There may be some requirement for water usage at the site; for welfare facilities or indeed for dust prevention, in the event that there is any stockpiling of material on site. However, any water use on site is not expected to be significant and would not be outside what would usually be expected for works of this nature.
d. Production of waste: Will the proposal produce solid wastes during construction, operation, or decommissioning?	There will be some waste generated on site. Standard domestic waste will be generated in construction compounds and welfare facilities. This will be segregated at source, removed from site and disposed of in a suitable licenced facility. There will be some Construction and Demolition (C&D) waste generated from the Proposed Development, in the form of some asphalt and/or concrete. The quantities of C&D waste are not expected to be significant and will be removed from site and recycled where possible or disposed of in a suitable licenced facility. Should the appointed contractor encounter contaminated ground during the excavation works, it will be managed appropriately and disposed of at suitably licensed and permitted facilities in accordance with the requirements of current Irish waste management legislation. Generation of waste is not anticipated to create a significant impact for the operational period.
e. Pollution and nuisances: Will the proposal release pollutants to ground or surface water, or air (including noise and vibrations) or water, or lead to exceeding environmental standards set out in other Directives?	The Proposed Development is located in Air Quality Zone B as Carrigaline falls within the boundaries of the Cork Conurbation. The closest air quality monitoring station to the Proposed Development is located adjacent to Church Road within Carrigaline Playground. The air monitoring site was commissioned in January 2023 and at the time of writing, the Air Quality Index for Health (AQIH) rating is a 1 which indicates no known issues with air quality in the area. Historic data can be gathered from the next nearest site located at Cobh approximately 7.3km east of the Proposed Development which also has an AQIH rating of 1. Historic monitoring of Cobh indicates that PM2.5 levels from January 2023 to June 2023 remain below recorded emission levels in 2010 with a reading of approximately 7.45µg/m3.

Screening Determination:	
	There is potential for some emissions to air to occur as part of the Proposed Development, however there is not expected to be any exceedance in environmental standards set out in relevant Directives. There is not expected to be any emissions to ground or surface water as a result of the proposed excavation works. Refer to Section 6 for a detailed description of the types and characteristics of effects.
	From a noise perspective, all streets within the site boundaries are mapped as part of the CCC Agglomeration Strategic Noise Maps. Lden values along the streets within the Proposed Development predominately range from 50-55dB and 70-74dB on the Strategic Noise Maps. Lnight values range from 55-54dB throughout the majority of the Proposed Development to 60-64dB within the boundaries of the road corridor. Considering the above readings, the baseline noise emanating from the nearby roads surrounding the site is considered to be already quite high.
	There is potential for noise to be generated during the construction phase due to construction traffic and machinery operation. However, noise emissions are not expected to be significant. Standard working hours of 0700 – 1800 Monday to Friday and 0800-1400 on Saturday will apply to all works. Any works outside of these hours would be done by exception.
	No significant vibration impacts are envisaged during the construction phase. Construction plant with potential to cause vibration impacts are likely to be used such as excavators and dumper trucks. Any potential vibration impacts during the construction phase will be managed by the implementation of appropriate control measures.
	No significant water pollution impacts are envisaged to ground or surface water receptors during the construction phase. The level of excavation is minimal (max 1,000mm) and all potential surface water run off is anticipated to drain into existing drainage systems for eventual treatment at Shanbally Wastewater Treatment Plan (WwTP). Excess surface water run-off on Strand Road will be diverted through existing stormwater drainage systems for eventual dispersal into the Owenboy River and Owenboy Estuary. Any surface water pollutants will be minimal and will be filtered out through the ground prior to entering the water networks. Therefore, significant negative effects on water quality, hydrology, hydrogeology are not envisaged. Best practice construction measures such as silt and sediment controls will be installed prior to the commencement of any construction works.
	As there are high volumes of traffic identified throughout the Proposed Development, there is a potential for traffic disruption during the construction phase of the Proposed Development. Therefore, the Contractor will be required to develop and implement a detailed Construction Traffic Management Plan (CTMP) at the outset to ensure that traffic disruption is kept to a minimum.
f. Major accidents and disasters: In accordance with scientific knowledge, is there a risk of major accidents and/or disasters which are relevant to the project, including those caused by climate change?	Given the scale and nature of the proposed excavation works, there is not considered to be any risk of major accidents and/or disasters which are relevant to the project The Contractor will ensure that the Proposed Development are carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). There is a low probability that accidents will occur as the construction works are standard in nature and well understood. Normal good construction practice will ensure that the risk of accidents will be low. It is envisaged that the risk of accidents, having regard to substances or technologies used is very low and therefore will not result in significant environmental effects.
g. Risks to human health, for example due to water contamination or air pollution:	The Proposed Development is not expected to give rise to the release of pollutants to ground, surface or ground water, or air which will lead to exceeding environmental standards set out in other Directives.
	Refer to Section 6.1 for an assessment of the potential for effects on human health.
2 Location of Proposed Development:	

Screening Determination:	
The environmental sensitivity of geographical areas likely to be affected by the Proposed Development:	If relevant, briefly describe the characteristics of the location (with particular regard to the (a) existing and approved land use, (b) the relative abundance, availability, quality and regenerative capacity of natural resources, and (c) the absorption capacity of the environment):
a. Generally describe the location of the site and its surroundings:	The Proposed Development encompasses six routes throughout Carrigaline Co. Cork. It includes Cork Road, Rose Hill, Ballea Road, Church Road and Rock Road, Kilmoney Road, and Strand Road. The Proposed Development is approximately 7.42ha in size.
b. Is the project located within, close to or has it the potential to impact on any site specified in Article 103(3)(a)(v) of the Regulations: - European site - NHA/pNHA - Designated Nature Reserve - Designated refuge for flora or fauna - Place, site or feature of ecological interest, the preservation, conservation, protection of which is an objective of a development plan/local area plan/draft plan or variation of a plan.	The Proposed Development is adjacent to the Cork Harbour Special Protected Area (SPA) and the Owenboy River proposed natural heritage area (pNHA) along Strand Road. No habitat removal will be required for the proposed construction works along Strand Road. There are no nature reserves, or nature designated areas of refuge for flora or fauna at or near the site of the Proposed Development. The site is considered to have features of ecological interest due to its proximity to an SPA and pNHA. Refer to Section 6.2 for further information on potential impacts.
c. Are there any other areas on or around the location that are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies (including riparian areas and river mouths), the coastal zone and the marine environment, mountains, forests or woodlands, that could be affected by the project?	The site of the Proposed Development is located in an urbanised area in the town of Carrigaline. However, aside from the Cork Harbour SPA and the Owenboy pNHA, it is not anticipated that there are any other areas on or around the location that are ecologically important or sensitive.

Screening Determination:	
d. Is the proposal likely to be highly visible to many people? Are there any areas or features of high landscape or scenic value on or around the location, or are there any routes or facilities that are used by the public for recreation or other facilities which could be affected by the proposal?	The Proposed Development is located in an urbanised area within Carrigaline in Co. Cork. The land represents a mix of commercial, residential and amenity developments within the vicinity of the site. During construction, there will be elements that will be visible to people within the site boundaries. Upon completion, the Proposed Development will introduce several public realm improvements including new footpaths and cycle tracks along with rain and wildflower gardens. Section 6.4 states that there are areas of high value landscape to the east of the Proposed Development. However, given the nature of the Proposed Development, there will not be any negative impacts to the high value landscape. Therefore, the site is not considered to be of significant landscape character significance.
e. Are there any areas or features of historic or cultural importance on or around the location that could be affected by the project?	There are no Architectural Conservation Areas (ACAs) located within proximity of the site. There are no features of historic or cultural importance on or around the Proposed Development that will be impacted.
f. Are there areas within or around the location which are densely populated or built-up, or occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities that could be affected by the proposal?	There are a number of facilities in close proximity to the Proposed Development Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road. The Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John are adjacent to Church Road. The Kingdom Hall of Jehovah's Witnesses is adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl which are all adjacent to Strand Road. Access to these facilities will be maintained during the construction phase. There will, however, be times whereby access is restricted to facilitate the works. The contractor will liaise with those impacted in advance of the works. Due to the temporary nature of the construction, any potential impacts will be slight and short-term. Therefore, significant impacts to sensitive land uses are not anticipated.
g. Are there any areas within or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, that could be affected by the proposal?	The site of the proposed work does not contain important, high quality or scarce resources that could be affected by the proposal. The Owenboy River and Owenboy Estuary are both situated within close proximity to the Proposed Development.
h. Are there any areas within or around the location which are already subject to pollution or environmental damage, and where there has already been a failure in environmental standards that could be affected by the proposal e.g. the status of water bodies under the Water Framework Directive?	There are no known areas within or around the site of the Proposed Development which are already subject to pollution or environmental damage, or where there has already been a failure in environmental standards that could be affected by the proposal. The primary water features located in close proximity to the Proposed Development are the Owenboy River (IE_SW_19O011400) and the Owenboy Estuary (IE_SW_060_1200). The Owenboy River flows into the Owenboy Estuary which in turn eventually flows into Cork Harbour (IE_SW_060_0000). The risk status of the Owenboy River is classified as 'at risk' and has a 'Moderate River Waterbody WFD Status 2016-2021. The Owenboy Estuary is classified as 'at risk' and has a 'moderate' Transitional Waterbody WFD Status 2016-2021.

Screening Determination:				
i. Is the site located in an area susceptible to subsidence, landslides, erosion, or flooding which could cause the proposal to present environmental problems?	The site of the Proposed Development is not located in an area susceptible to subsidence, landslides, erosion or flooding which could cause the proposal to present environmental problems.			
	The Proposed Development is situated within the Lee River sub-catchment areas of the Lower Lee and Owenboy. A Flood Risk Assessment (FRA) was prepared for Phase 1A of the Carrigaline TPREP (Arup, 2022) which found that the Lee catchment Flood Risk Assessment Management Study (CCC, 2014) noted that sections of the land where the Proposed Development is situated are within 1:1000 or 0.1% AEP Flood Extent for fluvial flooding.			
	The FRA also indicates that the Proposed Development is not within area at high risk of pluvial flooding or groundwater flooding. However, the Proposed Development is partially located within the 0.5% and 0.1% AEP Flood Extent for tidal flood risks.			
	However, the design of the Proposed Development includes upgrades to the existing drainage system including the provision of additional gullies where required and SuDS systems (tree pits and rain gardens) to reduce the risk to acceptable levels.			
j. Are there any additional considerations that are specific to this location?	No additional considerations in addition to those previously identified above are specific to this location.			
3 Types and characteristics of potential impacts:				
If relevant, briefly describe the characteristics of the potential impacts under the headings below.	If relevant, briefly describe any mitigation measures proposed to avoid or prevent a significant effect.	Is this likely to result in significant effects on the environment?		
(including where relevant the magnitude and spatial extent of the impact (e.g. geographical areas and size of population likely to be affected), nature of impact, intensity and complexity of impact, probability of impact, and duration, frequency and reversibility of the impact):				
Population and human health:				
The vision of the Proposed Development is to provide an integrated pedestrian and cycle network which will improve accessibility throughout Carrigaline whilst promoting active travel alternatives. The works along Kilmoney Road and Rose Hill will improve the network	Temporary traffic management measures will be required where the work will cross or run adjacent to the local public roads. These temporary traffic management measures will be designed carefully to enable the works to progress and to manage the safety of workers and the passing public. The temporary	No		

Cork County Council

Carrigaline TPREP Phase 1B

285392-00_EIA Screening | Issue | 08 November 2023 | Ove Arup & Partners Ireland Limited

EIA Screening

Screening Determination:

to incorporate footpaths on both sides of the existing road network with enhanced cycle-tracks introduced throughout the Proposed Development.

There will also be new public lighting features introduced throughout the site boundary along with raingardens and wildflower gardens with integrated seating features.

There will be some construction traffic associated with the construction of the Proposed Development. Additionally, there will be some temporary disruption to pedestrian and cycle routes during the construction phase of the Proposed Development. However, the operation of the Proposed Development will rectify existing safety concerns for active travel users by expanding on pedestrian and cyclist access routes.

There will be some dust and noise emissions during the construction phase.

Sensitive receptors are located near and adjacent to the Proposed Development area. Those in direct proximity to the Proposed Development include the Owenabue Medical Centre and Carrigaline United AFC adjacent to Ballea Road. The Carrigaline Playground, St Mary's Church and the Church of our Lady and Saint John are adjacent to Church Road. The Kingdom Hall of Jehovah's Witnesses is adjacent to Kilmoney Road. Tots and Co Childcare is approximately 30m east of Rose Hill and the Carrigaline Community Centre is approximately 50m south of Church Road. There is also the Carrigaline Fire Station, Dunnes Stores and a Lidl which are all adjacent to Strand Road.

Following completion of the Proposed Development, a permanent positive effect on the health of the population is identified as a traffic management measures will evolve constantly as the works progresses. Thus, as a result of temporary traffic measures, there may be some disruption or nuisance experienced by local residents and businesses.

In the event of temporary disruption to access to these receptors, prior engagement will be undertaken to inform of any impacted access routes.

Screening Determination:					
result of improved infrastructure and additional/improved routes for cyclists and pedestrians.					
Biodiversity, with particular attention to species	Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive. ² *				
No significant effects on biodiversity are predicted as a result of the Proposed Development.	None required. See Section 6.2 for embedded design measures which will enhance BNG.	No			
Land, soil, water, air and climate:					
Only shallow excavations and planning will be required during the construction of the Proposed Development. No dewatering will be required during the construction phase of the Proposed Development. Any surface water run-off that is generated during both the construction and operational phase of the Proposed Development will enter the existing surface water drainage system for dilution before treatment at the Shanbally WwTP. Excess surface water run-off on Strand Road will be diverted through existing stormwater drainage systems for eventual dispersal into the Owenboy River and Owenboy Estuary. Any surface water pollutants will be minimal and will be filtered out through the ground prior to entering the water networks. Therefore, significant negative effects on water quality, hydrology, hydrogeology are not envisaged. Best practice construction measures such as silt and sediment controls will be installed prior to the commencement of any construction works.	The Contractor will send any excavated material which cannot be re-used/recycled for disposal to a suitably licenced facility. The contractor will ensure that any interim storage or waste management facilities for excavated material have the appropriate waste licences of waste facility permits in place. All construction machinery will be stored in a bunded construction compound on site. No fuels will be stored on site. Best practice construction practises will be implemented throughout the duration of the construction phase. Part of the Proposed Development involves the implementation of Sustainable Urban Drainage Systems (SuDS). As such, surface water will be managed in accordance with SuDS. Surface water generated during the construction phase will be managed in line with best construction practices such as the implementation of silt and sediment controls and will filter into the existing drainage system. The level of monitoring and adoption of mitigation measures will vary throughout the construction works depending on the type of activities being undertaken and the prevailing weather conditions at the time. A	No No			

 $^{^{2}}$ And with particular regard to areas specified in Article 103(3)(a)(v) of the Regulations.

Screening Determination:

There will be some waste generated on site. Standard domestic waste will be generated in construction compounds and welfare facilities. This will be segregated at source, removed from site and disposed of in a suitable licenced facility.

There will be some Construction and Demolition (C&D) waste generated from the Proposed Development, in the form of some asphalt and/or concrete. The quantities of C&D waste are not expected to be significant and will be removed from site and disposed of in a suitable licenced facility. Should the appointed contractor encounter contaminated ground during the excavation works, it will be managed appropriately and disposed of at suitably licensed and permitted facilities in accordance with the requirements of current Irish waste management legislation.

There is potential, as in any construction or excavation site, for a pollution event to occur resulting in contamination.

There is potential for dust impacts to arise due to construction activities associated with the Proposed Development, including the excavation works and the stockpiling of material on site.

The Proposed Development will result in emissions to air from the combustion exhausts of construction plant and machinery and the vehicles used to transport the workforce, materials and waste to and from the works areas. Emissions to air from the Proposed Development during the construction phase will be temporary and the effect on air quality is not expected to be significant.

Due to the facilitation of active travel routes throughout the Proposed Development, there is the potential for a decrease in vehicle usage dust screen will be use around the site. It is noted that the stockpiling of excavated material on site is to be minimised with immediate removal of excavated materials envisaged for the majority of the works.

The contractor will implement normal good practice measures in monitoring and reducing exhaust emissions during the construction phase. A CTMP will be implemented for the duration of the construction phase. Construction traffic will be managed to keep trips by Heavy Goods Vehicles (HGVs) to the practical minimum.

Construction operations on site, deliveries to site and construction shift times will be managed to ensure minimal disruption and ensure construction traffic will have limited impact on the traditional network peak periods. Construction operations will generally take place between the hours of 0700-1800 Monday to Friday and 0800-1400 on Saturday. Night-time and Sunday working may be required to facilitate street works that cannot be undertaken during day time / evening conditions. The planning of such works by the appointed contractor will take place in consultation with CCC and will have consideration for sensitive receptors, in particular any nearby residential areas.

Noise emissions will be further managed by the implementation of specific control measures. Examples of measures to be employed include the selection of quiet plant, not leaving plant idling and maintenance of plant to minimise noise generation. A full list of measures will be proposed and implemented by the contractor in advance of the construction works.

Screening Determination:				
which would result in a net positive air effect during the operational phase. There will be no significant negative air effects as a result of the Proposed Development.				
Noise will be generated during the construction of the Proposed Development due to demolition works, excavation works, construction works, construction machinery and construction traffic.				
The effect of construction noise on sensitive receptors in the immediate vicinity of the Proposed Development site are deemed to be temporary and imperceptible due to the short duration of the works and the urban setting of the Proposed Development.				
With respect to operational traffic noise, it is not expected that there will be likely significant adverse impacts, considering the existing busy, urban setting.				
Material assets, cultural heritage and the landsco	upe:*			
Given the volume of traffic through the site, there is the potential for slight negative landscape and visual effects during the construction works. However, as these works will be localised and of short duration, significant impacts to the existing landscape are not anticipated.	Consultation with the relevant service providers will ensure minimal disruption to existing services during the construction phase.	No		
As part of the landscape design, improvements to local biodiversity will be introduced including the planting of new trees and native wildflowers in rain gardens (see Section 6.2 and 6.4). Additionally, new street lighting will be introduced along with new seating elements to enhance the public realm within the Proposed Development. This will create an overall slight positive impact to the landscape of Carrigaline.				

Screening Determination:				
There are no national monuments or recorded structures that will be impacted as part of the Proposed Development.				
Cumulative effects:				
The CCC Planning website was consulted in order to ascertain if there are any other existing or permitted projects that could give rise to cumulative effects, when considered alongside the Proposed Development. Existing or permitted projects of significance within 1km of the Proposed Development site which have the potential to give rise to cumulative effects were identified (refer to Section 6.10). Given that no likely significant effects have	None Required	No		
been identified as a result of the Proposed Development, no significant cumulative effects are identified.				
Transboundary effects:				
As described in Section 5, the site of the Proposed Development is approximately 7.42ha in size and is located along several established roads in Carrigaline.	None required.	No		
The Proposed Development will be minor in nature and scale. Thus, there is no potential for transboundary effects to occur as a result of the Proposed Development.				
4 Additional Considerations:				
Further relevant information, if any, relating to how the results of any other relevant assessments of the effects on the environment have been taken into account (e.g. SEA, AA screening, AA):	The conclusions of the AA Screening Report have been considered in the preparation of this report.			

Screening Determination:			
Other relevant information / considerations of note:			
C Determination:			
No real likelihood of significant effects on the environment.	√	EIAR is not required	
Real likelihood of significant effects on the environment.		EIAR is required	

D Main Reasons and Considerations:

Having regard to the criteria in Schedule 7, the information provided in accordance with Schedule 7A of the Planning and Development Regulations 2001, as amended, and the following:

- Set out the main reasons and considerations specific to the nature, size, or location of the Proposed Development, and the types and characteristics of potential impacts:
- Where relevant, reference any key mitigation measures of significance to the screening determination:
- Where relevant, reference the results of any other relevant assessments of the effects on the environment (e.g. SEA, AA screening, AA):
- Any other relevant information:

It is considered that the Proposed Development would not be likely to have significant effects on the environment and that the preparation and submission of an environmental impact report is not therefore required.