

Ratoath Pedestrian and Cycle Scheme

Environmental Impact Assessment Screening

Meath County Council

March 2022

Notice

This document and its contents have been prepared and are intended solely as information for Meath County Council and use in relation to EIA Screening for the Ratoath Pedestrian and Cycle Scheme.

WS Atkins Ireland Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

Document history

Client Sign off

Client	Meath County Council
Project	Ratoath Pedestrian and Cycle Scheme
Job Number	5139451
Client Signature / date	

Contents

Chapter	Page
1. Introduction	4
1.1. Proposed Project	4
1.2. Purpose of this Report	4
2. Methodology	6
2.1. Relevant Legislation	7
3. Environmental Impact Assessment Screening	9
3.1. Step 1 - Mandatory Screening for EIA	9
3.2. Step 2- Determining if the project is likely to have significant effect on the receiving environment.	9
3.3. Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA	20
3.4. Potential for Significant Effects on the Receiving Environment	27
3.5. Screening Conclusion	27
4. References	29

Figures

Figure 1-1 - Proposed Project Location	5
Figure 2-1 - EIA Screening Process (Source: 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft' (EPA, 2017)).	7

1. Introduction

Meath County Council (MCC) appointed Atkins to prepare an Environmental Impact Assessment (EIA) Screening Report as part of the Part 8 Planning Application for the Ratoath Pedestrian and Cycle Scheme.

1.1. Proposed Project

Meath County Council (MCC) are undertaking the project in partnership with the National Transport Authority (NTA) to deliver a high-quality Pedestrian and Cycle Scheme within Ratoath. The proposed scheme consists of improvements and upgrades to the following key routes:

- Town Centre Streets;
- Approach Roads;
- Distributor Roads;
- Greenway; and,
- School Access Roads.

The scheme is 16.58km in length and 9.49 hectares (ha) in size. These routes are illustrated in Figure 1.1. The Ratoath Pedestrian and Cycle Scheme will result in a high-quality pedestrian and cyclist network within the town of Ratoath that will create safe and comfortable routes between a number of large residential areas and key attractions such as the GAA Club, BMX Club, Soccer Club, Primary Schools, Secondary School and the town centre itself. There are a number of benefits which will be realised by all road users, including pedestrians, cyclists, public transport users and motorists through the implementation of the proposed scheme. These benefits include the following:

- Provision of a connected, safe, high quality pedestrian and cycle network;
- Provision of key facilities to encourage an uptake in cycling particularly within the school going age group;
- Improved bus facilities within the town centre including upgrades to shelters and the provision of bicycle parking;
- Improved operational safety for all road users at the R155 / R125 junction at Supervalu;
- Implementation of traffic management measures to encourage reduced vehicular speeds thereby improving road safety for all road users; and,
- Provision of pedestrian crossing points at key desire points and facilitating safe crossing locations particularly across side road junctions.

The scheme is aligned with National Policy and is in keeping with the objectives of the Meath County Development Plan and Ratoath local Area Plan.

1.2. Purpose of this Report

This report has been prepared to support a Part 8 Planning Application by Meath County Council in relation to the Ratoath Pedestrian and Cycling Scheme. The purpose of this report is to determine whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR). The project has been screened to generate a summarised overview of the potential impacts on the receiving environment, and in the context of relevant statutory requirements.

A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2022). The project has been assessed with regards to the likely significant effects of the project on European sites within the zone of influence of the proposed project. The Screening for AA concluded that '*the proposed project poses no likely significant effects on any European sites, including Malahide Estuary SAC and Malahide Estuary SPA. Thus, it is recommended that it is not necessary for the proposed project to proceed to stage 2 of the Appropriate Assessment process*'.

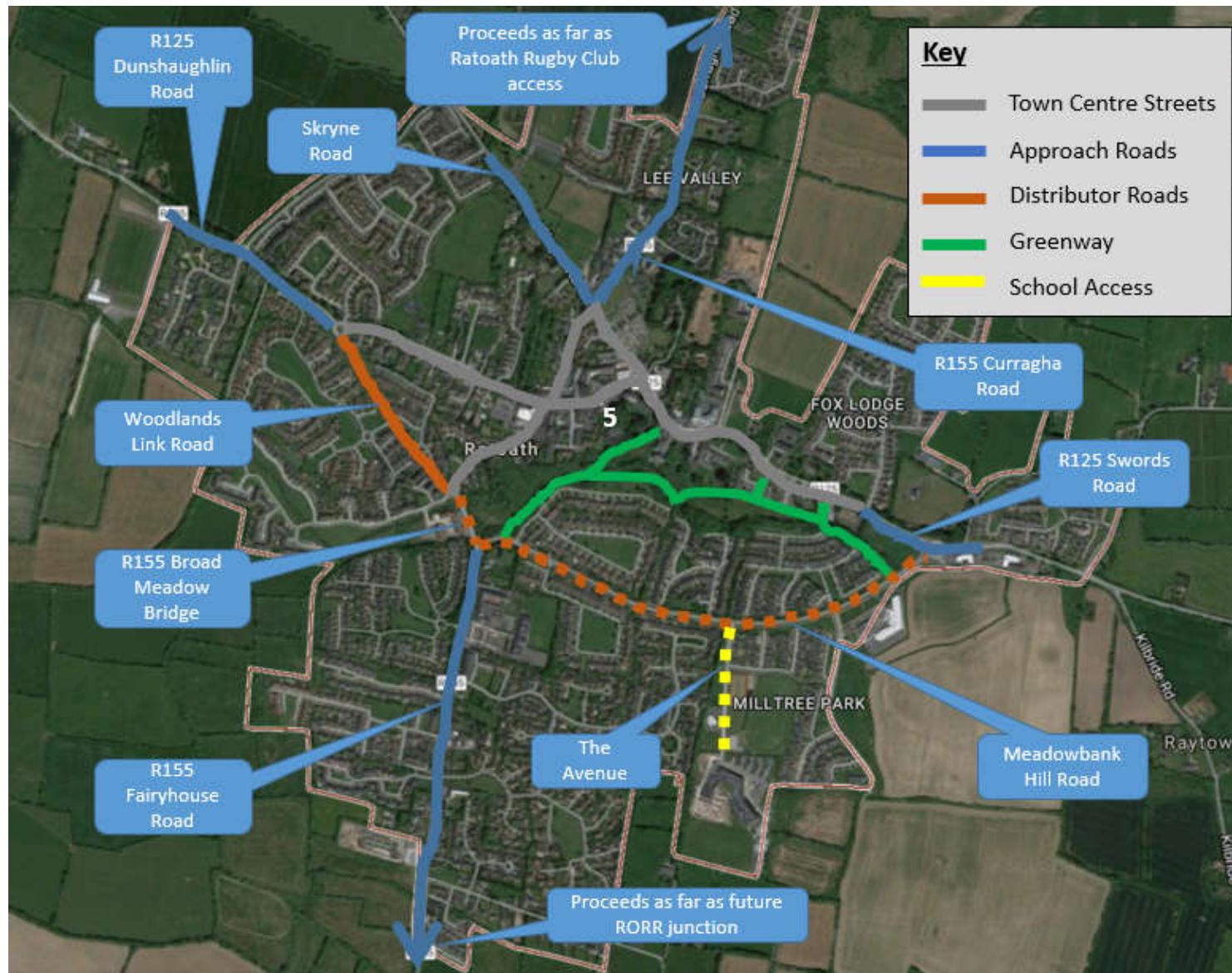


Figure 1-1 - Proposed Project Location

2. Methodology

This project has been screened in accordance with Section 3.2 of the ‘*Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft*’ (EPA, 2017), the Environmental Impact Directive (85/337/EEC) and all subsequent relevant amendments, Planning and Development regulations (2001-2022), including S.I. No. 296 of 2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, which came into operation on 1st September 2018. The project had been screened in accordance with the Roads Act, 1993-2021 and the European Union (Roads Act 1993) (Environmental Impact Assessment) (Amendment) Regulation 2019 S.I. No. 279 of 2019.

As set out under the relevant legislation (detailed further in Section 2.1 of this report), the following steps are involved when carrying out EIA screening for a particular project:

- **Step 1** is to determine if the proposed infrastructure works represent a project as understood by the Directive and if a mandatory EIAR is required. Such projects are defined in Article 4 of the EIA Directive and set out in Annexes I and II. Projects requiring a mandatory EIAR are included under Section 50 of the Roads Act (1993-2021), S.I. No. 279 of 2019 amendments and the prescribed projects listed in Section 8 of the Roads Regulations, 1994 (S.I. No. 119 of 1994).
- **Step 2** is to determine if the project is likely to have significant effects on the receiving environment. Section 50 (1)(b) of the Roads Act (1993-2021) states that *‘if An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment.’*

Section 50 (1)(c) of the Roads Act (1993-2021) states that *‘where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development.’*

Section 50 (1)(e) of the Roads Act (1993-2021) states *‘where a decision is being made pursuant to this subsection on whether a road development that is proposed would or would not be likely to have significant effects on the environment, An Bord Pleanála, or the road authority or the Authority concerned (as the case may be), shall take into account the relevant selection criteria specified in Annex III.’* Annex III as has been transposed into Irish Legislation via Schedule 7 of the Planning and Development Regulations 2001-2022.

There are no exacting rules as to what constitutes “significant” in terms of environmental impacts. The responsibility is on Planning Authorities to carefully examine every aspect of a development in the context of characterisation of the project; location of the project and type and characteristics of potential impacts. It is generally not necessary to provide specialist studies or technical reports to complete this screening process, rather to investigate where further studies may be required, and where risks, if any, to the integrity of the receiving environment may lie.

For the purposes of screening sub-threshold development for EIA, all of the relevant information as presented within EIA Planning and Development Regulations 2018 (Schedule 7A) has been provided on behalf of the applicant, Meath County Council. The potential for the project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001 - 2022 (Schedule 7).

The findings of the EIA screening assessment prepared for the project has informed our professional opinion as to whether an EIAR is warranted for the proposed project, with due regard to all relevant statutory requirements and technical guidance. However ultimately it is the responsibility of the relevant planning authority to make a determination as to whether an EIAR is required for a particular project, based on screening conducted by the planning authority.

Figure 2-1 provides a summary of the main steps involved in the EIA screening process.

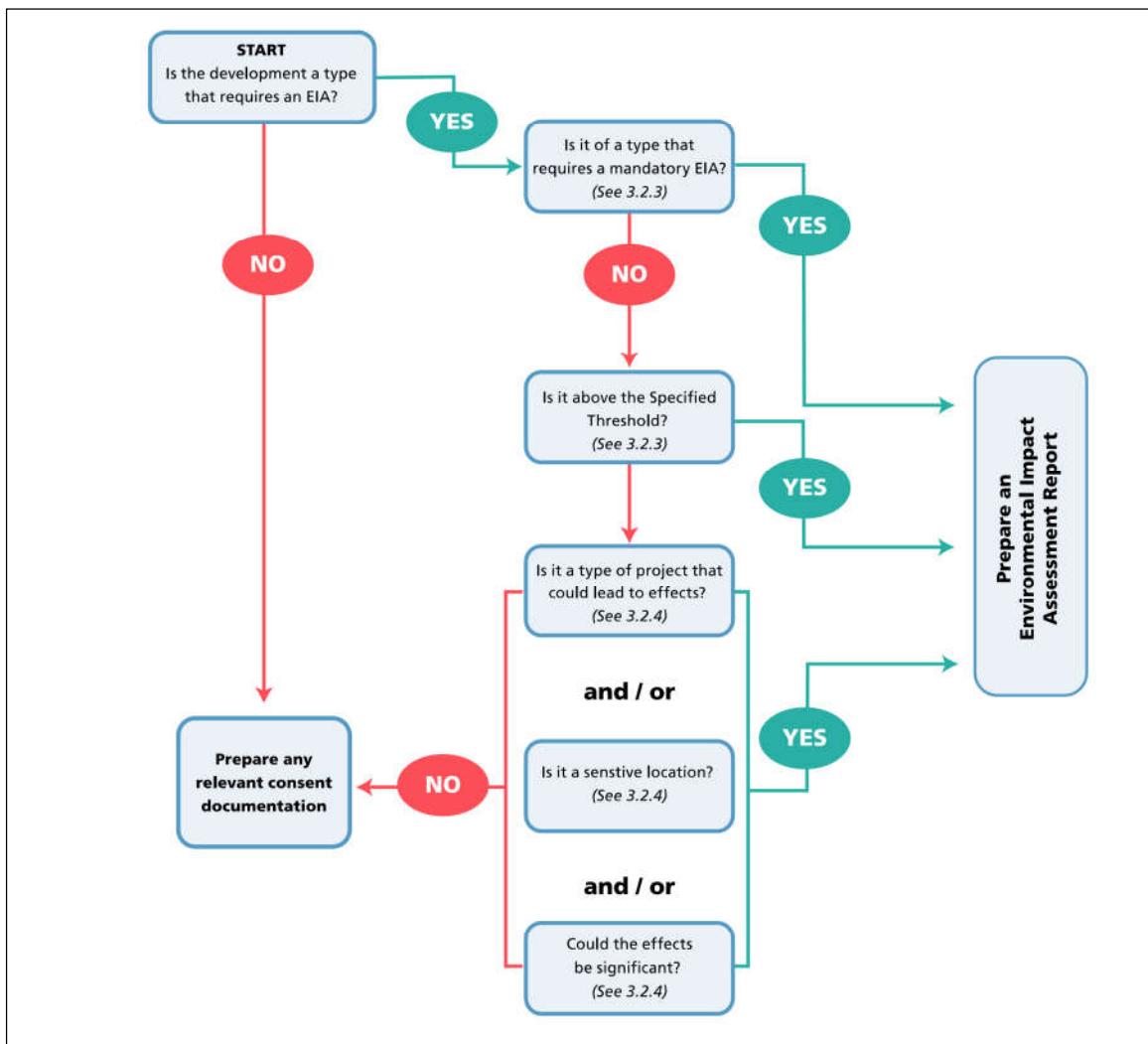


Figure 2-1 - EIA Screening Process (Source: 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft' (EPA, 2017)).

2.1. Relevant Legislation

The Environmental Impact Directive (85/337/EEC) was brought into force in 1985. Subsequent amendments were made with the following pieces of legislation - 97/11/EC, 2003/35/EC, 2009/31/EC, 2011/92/EU and 2014/52/EU. The Directive was originally transposed into Irish Law by the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349/1989). This amended the Local Government (Planning and Development Act) 1963 and introduced the requirement for an Environmental Impact Assessment in certain specified circumstances. The most recent amendment to the Directive is focused on clarifying and simplifying the process of EIA. The screening criteria have been updated, and Member States have a mandate to simplify their assessment procedures. EIA reports are to be made more readily understandable to members of the general public. Section 50 of the Roads Acts 1993 and the 2021 amended Regulation outlines certain categories of roads projects which require an EIAR.

New EIA Regulations ((Planning and Development) Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018)) transposing the 2014 EIA Directive were recently adopted and came into operation on 1st September 2018. These regulations amend the Planning and Development Regulations 2001 (S.I. No.600 of 2001); they seek to transpose EIA Directive 2014/52/EU and to give further effect to the 2011 Directive, as follows;

- An EIAR is required as a matter of course on specified large-scale projects which have a high likelihood of impacting on the receiving environment. These projects are listed in full within the Planning & Development Regulations (2001-2022), Schedule 5, Part 1 – Development for the purposes of Part 10.
- Each EU Member State has discretionary consideration for the requirement of an EIA in relation to various processes and activities. These projects are listed in full within the Planning & Development Regulations (2001-2022), Schedule 5, Part 2 – Development for the purposes of Part 10. If the proposed project is listed under Schedule 5, Part 2, but does not exceed the relevant

stated thresholds, it is considered to be sub-threshold. Part 10, article 92 of the Planning & Development Regulations, 2001 as amended states “sub-threshold development” means development of a type set out in Part 2 of Schedule 5, which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development”. Any sub-threshold developments should be evaluated to determine if the project is likely to have a significant impact on the environment.

- Criteria to evaluate whether significant impacts on the receiving environment will arise from a proposed development are listed under Schedule 7 of the relevant Planning & Development Regulations (2001-2022). A list of the relevant information to be provided by the applicant or developer for the purposes of sub-threshold EIA screening is presented in Schedule 7A of the Regulations, and summarised below;

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.
2. A description of the aspects of the environment likely to be significantly affected by 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:
 - 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.
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

3. Environmental Impact Assessment Screening

3.1. Step 1 - Mandatory Screening for EIA

The scheme has been screened against the criteria outlined in Section 50(1)(a) of the Roads Act 1993-2021¹ and Article 8 of S.I. No. 119/1994- Roads Regulations, 1994². This project does not fall within any category of development requiring a mandatory EIA; hence the preparation of an EIAR is not required under Section 50 (1)(a).

3.1.1. Sub-threshold Development Likely to Have Significant Effects on the Environment

The scheme has been screened against the criteria outlined in Section 50(1)(b) and 50(1)(c) of the Roads Act 1993-2021, as follows;

Section 50(1)(b) – ‘If An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment.’

Section 50(1)(c) – ‘Where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development.’

Therefore, it is considered that the scheme should undergo an EIA screening to determine if an EIAR would be required in accordance with Section 50(1)(b) and 50(1)(c) of the Roads Act 1993-2021.

3.2. Step 2- Determining if the project is likely to have significant effect on the receiving environment.³

All relevant information as required under Schedule 7A has been provided on behalf of Meath County Council and is presented within this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001-2022 (Schedule 7), as presented within this screening report.

3.2.1. Description of the Proposed Development (Schedule 7A (1))

A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))

Ratoath is situated on the intersection of the R125 and R155 regional roads in the south east of County Meath. The town has developed significantly over the last 20 years and acts as a commuter town with more than three quarters of the population travelling to work in Dublin. The overall development consists of cycleways on existing paths/roadways with a Greenway element adjacent to the Broadmeadow River. The proposed scheme is 16.58km in length and 9.49ha in size.

The proposed scheme has been broken down into general sections. These sections are as follows:

- Approach Roads;
 - Skryne road
 - Curragha Road
 - Swords Road
 - Fairyhouse Road
 - Dunshaughlin Road
- Town Centre Streets;
- Woodlands Link; and,

¹ <http://www.irishstatutebook.ie/eli/2021/si/12/made/en/print>

² <http://www.irishstatutebook.ie/eli/1994/si/119/made/en/print>

³ Pursuant to Schedule 7(A) of the Planning and Development Regulations as amended 2001-2022

- Greenway.

The description of the proposed pedestrian and cycle facilities for each section is as follows.

Approach Roads

Skryne Road: The proposed pedestrian and cycle facilities along this section of the scheme consist of an existing 2.0m wide footpath on the western side of the road which will be re-designated as a shared use pedestrian and cycle path. This path will connect with existing pedestrian and cycle facilities at the Silverstream Housing estate and also connect with the facilities proposed on the Curragha Road and the town centre streets. Raised uncontrolled crossings are provided at side roads and a raised controlled crossing is provided to connect with the Pitch and Putt course and Ratoath Harps Soccer club.

R155 Curragha Road: The proposed pedestrian and cycle facilities along this section of the scheme consist of a new 2.0m footpath along the eastern side of the road from the grounds of Ratoath Rugby Club to the traffic signal junction with the Skryne Road. The road will therefore be narrowed to 6.0m and designated as a shared street with a number of traffic management measures implemented. These measures consist of raised junction tables at the entrances to Lee Valley and Glebe Park and recurrent shared street cycle symbols painted onto the carriageway. In addition, a 50kmh driver feedback sign is to be introduced at the approach to the posted 50kmh speed zone.

Minor improvements in the form of kerb realignment, footpath upgrade and tactile paving will be introduced at the Curragha Road / Skryne Road traffic signal junction.

The section from the Lee Valley housing estate to the Ratoath Rugby Club will require some minor realignment of the road on approach to the Rugby Club where the available verge space to accommodate the footpath moves from the eastern side of the existing road carriageway to the western side of the carriageway.

R125 Swords Road: The proposed pedestrian and cycle facilities along this section of the scheme consist of the upgrade of the existing footpath / cycle track located on the southern side of the road from the sewage works access lane to the controlled crossing due east of the junction with the Foxlodge Woods housing estate to a shared path. From this crossing to the roundabout, the existing footpaths and one-way cycle tracks on both sides of the road will be reconstructed to suit the proposed alignment. The existing bus lane entry to the roundabout will be removed and associated bus stops on both sides of the road realigned and reconstructed as per the proposed plans. Crossings on the roundabout will be widened to 4.0m whilst a raised zebra crossing will be introduced on the western arm.

The southern arm of the roundabout will tie in with pedestrian and cycle facilities proposed as part of the Meadowbank Hill upgrade subject of separate planning approval process. From the roundabout to the Moulden Bridge housing estate a two-way shared pedestrian and cycle path will be introduced on the northern side of the roadway and will gain access to the estate which via a permeability access point through the existing boundary wall. Pedestrians will cross the Bourne Road via a raised uncontrolled crossing. Existing footpaths and cycle tracks to the south and southwest of the roundabout will be resurfaced and designated as a shared pedestrian and cycle path. Raised tables will be implemented at the junctions of Foxlodge Woods and the access lane to the sewage works.

R155 Fairyhouse Road: The proposed pedestrian and cycle facilities along this section of the scheme consist of a shared pedestrian and cycle path to be developed as a reconstruction of the footpath on the eastern side of the road which will include widening of the path, thereby reducing the carriageway width to 6.0m. The path will extend from the proposed RORR (Ratoath Outer Relief Road) junction north towards Gláscairn Lane directly opposite Ratoath BMX Club at the south of the town and continue northwards towards Ratoath National School and the traffic signal junction with Meadowbank Hill, where it will tie with facilities as part of the proposed Meadowbank Hill upgrade (subject to a separate planning permission). The proposed path between Gláscairn Lane and Fairyhouse Lodge housing estate is a minimum of 2.5m wide while the remainder of the path is a minimum of 3.0m. Raised uncontrolled crossings are provided at all side road accesses on both sides of the road.

R125 Dunshaughlin Road: The proposed pedestrian and cycle facilities along this section of the scheme consist of a 3m wide shared use pedestrian and cycle path on the southern side of the roadway from the entrance to Ratoath GAA Club to the south eastern roundabout intersecting with the Woodlands link and providing access to Steeplechase Hill. Kerb lines are slightly modified and raised zebra crossings are provided on all arms of this roundabout whilst raised zebra crossings are provided on the southern and eastern arms only of the Brownstown / Steeplechase Wood roundabout. The proposed crossings will connect to existing pedestrian and cycle facilities on the northern side of this road. The eastern extent of this section includes removal of certain number of trees and replacement with new tree planting. The existing bus stop will be retained. The eastern extent of this section will connect with proposals on the Woodlands Link and the Dunshaughlin Road Town centre street.

Distributor Road

Woodlands Link: The proposed pedestrian and cycle facilities along this section of the scheme predominantly consist of one-way cycle tracks on both sides of the road adjacent to the existing footpaths. Previously this would require the removal of the existing trees as the cycle track was proposed to utilise the existing road side verge.

The proposed scheme predominantly avoids the removal of trees by utilising the verge to the back edge of the existing footpath to accommodate the proposed footpath provision whilst the existing footpath is to be reallocated as the proposed cycle track. This extends along the western side of the Woodlands link from the Roundabout with the R125 Dunshaughlin Road to the housing access junction into the Woodlands Estate.

The design changes again from this housing estate access to the Somerville Roundabout. A toucan crossing is provided just south of the woodlands Estate access junction and to facilitate the crossing movements onto a shared pedestrian and cyclist path on the eastern side of the Woodlands Link. The existing boundary wall to Woodlands Park estate on the western side of the road is repositioned 1.0m back from its current location and a minimum width 3.0m shared facility is provided along the entire extents of this section to tie in with the proposed upgrades, subject of an approved Section 38 process, to the Somerville Roundabout and the Broadmeadow bridge link. The trees within the verge along this section are fully retained.

Town Centre Streets

The proposed pedestrian and cycle facilities along the town centre streets of the scheme generally incorporate traffic management measures predominantly consisting of raised platforms at uncontrolled and controlled crossings, raised junction tables and revised signage and road markings. The streets which are covered under the town centre designation are as follows and all of these streets will operate within a self-regulating 30kph speed limit:

- R125 Dunshaughlin Road;
- Main Street;
- East of Main Street;
- Curragha Road / Skryne Road junction to R125 / Skryne Road Junction;
- Curragha Road / Skryne Road junction to R125 / R155 junction; and,
- R125 / R155 junction to Somerville junction.

The above measures are proposed to encourage a low speed environment and to deter general eastbound / westbound traffic from the town centre and to encourage such through traffic to utilise the southern distributor route provided by the Meadowbank Hill and Woodlands Link. The proposed measures and resultant potential reduction in traffic speeds and volumes will assist in promoting a shared street mixed traffic cycling regime within the town centre.

Broadmeadow Greenway

The proposals for the riverside greenway are predominantly straightforward. It is proposed to upgrade the existing path to a consistent standard in terms of width (3.0m minimum), surfacing and appropriate public lighting.

It is also proposed to provide an additional path north of the river which will provide access further east towards the Meadowbank Hill, increasing permeability and offering additional walking and cycling amenity within the town.

Construction Methodology

The construction methodology will be further informed once the detailed design stage of the project is completed. However, at this preliminary juncture the following paragraphs describe the typical construction methodology to be employed for the works. Works will commence with the clearance and off-site removal of redundant road signage, boundary treatment, surface materials and topsoil. The works will be undertaken using a combination of operatives using hand tools, mechanical excavators and dumper trucks. To facilitate the main works, underground utilities which conflict with the main works will be uncovered using mechanical excavators and hand digging where appropriate. The need for significant utility diversions is not envisaged as part of the works; instead a 'lower and protect' approach will be favoured. This is likely to be restricted to locations where the walking and cycling facilities cross or interface with public roads.

Following the diversion of utilities, the initial pavement and cycle track construction phase will be undertaken. This will include the excavation and removal of the existing stone, soil, concrete ad bitumen materials along the route followed by the installation of new path and track base materials. Excavations will be largely undertaken by mechanical means, with any spoil arisings to be removed off site or reused locally where testing confirms its suitability. The base layers of the pavement and track are to be made of compacted stone materials.

Drainage works, likely to run in tandem with the pavement construction phase, are considered to be minimal and restricted to areas where the scheme interfaces with the public road. The works will also involve constructing the civil engineering elements required to facilitate the commissioning of the traffic signals and the public lighting

elements at the latter stages of construction once all the heavy civil engineering works have been executed. Service chambers and underground duct sets will be laid within trenches and backfilled with granular material. Signal poles and public lighting columns will be erected, and duct connections will be made to the base of each pole unit. The final pavement surface course will be laid using an asphalt paving machine followed by compaction using a vibrating roller.

For soft landscaping areas topsoil profiles will be graded to tie into the new pavement levels followed by grass seeding. The top soiling and seeding will be undertaken using a combination of mechanical excavator, tractor unit drawing a rotavator / rake / seed spreader and also operatives using hand tools for areas where machinery access is unavailable.

The project will involve the removal of redundant road signage. There will be no additional demolition works associated with this project.

A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b)).

The proposed scheme will be constructed within the town of Ratoath and along the existing Broadmeadow Greenway which is maintained by Meath County Council.

Under the Draft Directions of the Material Amendments to the Meath County Development plan 2021-2027 (MCC, 2021) the following zoning objectives have been identified adjacent to the footprint of the proposed project:

- A1 - Existing Residential defined by MCC (2021/2027) as '*To protect and enhance the amenity and character of existing residential communities.*'
- A2 - New Residential defined by MCC (2021/2027) as '*To provide for new residential communities with ancillary community facilities, neighbourhood facilities and employment uses as considered appropriate for the status of the centre in the Settlement Hierarchy.*'
- B1 - Commercial Town or Village Centre, defined by MCC (2021/2027) as '*To protect, provide for and/or improve town and village centre facilities and uses.*'
- F1 - Open Space defined by MCC (2021/2027) as '*To provide for and improve open spaces for active and passive recreational amenities.*; and
- G1 - Community Infrastructure defined by MCC (2021/2027) as '*To provide for necessary community, social, and educational facilities.*'

It is considered that the proposed scheme is fully compatible with the zoning requirements of the development strategy for Ratoath, under the Meath County Development Plan 2021-2027, providing a social amenity and pedestrian access and traffic management in the area. The proposed project is in line with the following objectives of the Ratoath development strategy listed under the Plan:

RA OBJ 8

- *To further advance public footpath and cycle path upgrades in the town in accordance with the Ratoath Pedestrian and Cycle Scheme.*

RA OBJ 9

- *To develop a system of linear parks and waterfront amenity areas with walkways and cycleways, subject to the availability of resources, along the banks of the River Broadmeadow.*

Hydrology and European Sites

While, the majority of the proposed pedestrian and cycle scheme would be located on made ground, the greenway adjacent to the Broadmeadow River consists of some existing informal paths, through improved grassland (GA1) and wet grassland (GS4), which will require re-surfacing.

The proposed scheme is within the Nanny-Delvin Water Framework Directive (WFD) Catchment area and the Broadmeadow sub-catchment area. There is 1no. watercourse (The Broadmeadow River) (EPA Code: IE_EA_08B020400) within the vicinity of the proposed project which appears to travel in an eastern direction to discharge to the Irish Sea ca. 23km from the proposed project. It should be noted the Broadmeadow River is also named as the Ratoath Stream (EPA Seg Code: 08_577) on the EPA River Network dataset.

The proposed scheme does not lie within, nor does it intersect with any European sites. There are 3no. European sites within the Zone of Influence (ZoI) of the proposed scheme; 2no. Special Areas of Conservation (SAC) and 1no. Special Protection Area (SPA). The proposed scheme is located ca. 14km south of 1no. SAC; Rye Water Valley/Carton SAC (Site Code: 001398), there is no hydrological or ecological connectivity between the proposed development and this SAC. The Broadmeadow River however, is hydrologically linked to Malahide Estuary SAC (site code 000205) and Malahide Estuary SPA (site code 004025), which are located ca. 19.5km and 20.6km downstream, respectively, of the proposed scheme.

There will be no land take from any of the designated sites within 15km of the proposed project and, based on the findings of the Stage 1 Appropriate Assessment Screening report (Atkins, 2022) there will be no potential significant adverse effects to European sites arising from the proposed project.

The proposed project does not lie within a nationally designated conservation area. There are no Natural Heritage Area (NHA) sites or proposed Natural Heritage Area (pNHA) sites within 15km of the proposed project. Malahide Estuary pNHA (000205) is located to the north ca. 19.5km downstream of the proposed scheme with hydrological connectivity along the Broadmeadow River. The pNHA overlaps in extent with the SAC and is designated for the same coastal habitats.

There are no Geological Heritage Areas within the project site or its immediate vicinity. The closest Geological Heritage Area (GHA) to the site is the Dunshaughlin GHA (Site Code: MH026), located 4.1km to the north west of the proposed project (GSI, 2022). According to GSI (2022) the site is described as '*a basin shaped body of silica derived from decalcified limestone*'.

Biodiversity

There are no wetland habitats located within 2km of the proposed project. There are 2no. Irish Wetland Bird Survey sites (I-webs) located ca. 14.5 km north east and 16.7km south east of the proposed project known as Hynesstown Lake Naul (0U003) and Broadmeadow (Malahide) Estuary (0U418) (I-webs, 2022). The Broadmeadow (Swords) Estuary is also designated as a Ramsar Site. However, there is potential for hydrological connectivity to the Broadmeadow (Malahide) Estuary from the proposed scheme area to this site through the Broadmeadow River.

An ecological survey was completed by Caroline Shiel in December 2021 along the Broadmeadow River Walk. A summary of the 2021 survey findings along the Broadmeadow River Walk are as follows:

- *'A shed along the route has potential as a bat roost. It should be surveyed for roosting bats prior to demolition;*
- *Mature beech on edge of track with potential roost features for bats;*
- *Ash tree with severe ash die-back disease on northern river bank. This tree is leaning across the Broadmeadow River. Bat survey required prior to felling;*
- *Second ash tree with severe die-back disease immediately east of leaning ash;*
- *A single Common pipistrelle was recorded in the westernmost wooden wedge-style bat boxes mounted on beech trees on southern river bank;*
- *Kingfisher recorded on branch projecting over river. Moorhen recorded on river;*
- *Fissure in stonework behind upstream facing stones with wren's nest. Wren's nest was active earlier this year; and,*
- *Close up of damaged section of arch with suitable crevices for bats. Several bat droppings were recorded in this crevice. Mostly likely to be Daubenton's bat. The stained section of this crevice should be retained for bats.*

An ecological survey was also completed along the 450m stretch of Fairyhouse Road by Caroline Shiel in December 2021. The proposed pedestrian cycle route runs on the eastern side of the road and will necessitate the removal of roadside verges in some locations. Existing hedgerows will not be removed. Roads will be narrowed where necessary. Caroline Shiel (2021) concluded that '*no ecological issues were identified*'.

Atkins prepared an Ecology Report (Atkins, 2022) for the proposed project. The site was surveyed on the 31st May 2019. The Ecology report states the following findings:

- *'In relation to protected species records for the site, a data request was made to NPWS in November 2021 for information on rare and protected species. There are records for hedgehog (*Erinaceus europaeus*), Irish hare (*Lepus timidus*), frog (*Rana temporaria*) and golden dock (*Rumex maritimus*) within the wider environment, but not along the corridor of the pathway, much of which comprises built land. The records for hedgehog are from Ratoath; Irish hare records are from the 10km grid square within which the study area is located; while frog records are from Garristown, Co. Dublin. The records of golden dock are from Curragha Bog near Garristown.*
- *There are records of various bat species within the vicinity of the proposed site. Bat suitability mapping accessed via the NBDC (Lundy et al., 2011) 4 shows that the 2km grid squares within which the site is located, are classed as being of medium bat suitability.*

⁴ [http://maps.biodiversityireland.ie/metadata/Landscape_Conversation_for_Irish_Bats_metadata\(v.3\).pdf](http://maps.biodiversityireland.ie/metadata/Landscape_Conversation_for_Irish_Bats_metadata(v.3).pdf)

- The absence of recent records of species from the NBDC database or NPWS records does not necessarily mean that it does not occur within the area rather it has not formally been recorded as present.
- While non-native invasive species are not an ecological feature of value, they do need to be considered as a potential ecological constraint. The European Communities (Birds and Natural Habitats) Regulations 2011 S.I. 477 detail the legal context regarding the introduction and dispersal of certain non-native invasive plants and animals. Section 49 and 50 of the Regulations specify that it is an offence to disperse or spread any plant species or associated vector material listed on the 3rd Schedule of the Regulations.
- No records for invasive plant species such as Japanese knotweed, Himalayan balsam, Giant-rhubarb or Giant Hogweed were noted within the site, or in the vicinity. As the most recent survey was in December 2022, it is recommended that the corridor a seasonally appropriate survey for invasive species be undertaken prior to construction'.

A field survey of the proposed Broadmeadow River Walk was carried out and the following was recorded 'the proposed Broadmeadow Greenway starts at north of the junction of Meadowbrook Hill and the R155, south of the Broadmeadow River. The route extends eastward along existing surfaced pathways and informal pathways through parkland and agricultural lands. Surfaced pathways was classified as having negligible ecological importance while the informal pathways through agricultural lands are of Local Importance (Lower Value).....The wetted width of the Broadmeadow River varied between 2m – 3m. The river functions as an ecological corridor and so is evaluated as being of Local Importance (Higher Value). Extensive litter was evident within the river, but there was still evidence visible of varied instream habitat comprising cobbles and gravels. Inland Fisheries Ireland (IFI) have conducted surveys along this river and recorded three-spined stickleback (*Gasterosteus aculeatus*), nine-spined stickleback (*Pungitius pungitius*), eel (*Anguilla anguilla*) and stone loach (*Barbatula barbatula*)' (Atkins, 2022).

Hydrogeology

There are 5no. GSI registered wells identified along the proposed scheme; 2no. of which are reported to be for domestic use only (GSI Reference: 2925SWW148 and 2925SWW145). 3no. regional and local public water supplies are present in the vicinity of the proposed scheme as follows; Ratoath Housing Scheme (GSI Reference: 2925SWW394), 1no. Meath County Council well (GSI Reference: 2925SWW426) and 1no. public supply well (GSI Reference: 2925SWW091) (GSI, 2022). The domestic wells are reported to a 1km locational accuracy, while the regional and local public water supplies have a reported locational accuracy range from 100m to 1km, and therefore their exact locations are not known at this stage.

There are no designated Public or Group Drinking Water Supply Source Protection Zones within 3km of the proposed scheme (GSI, 2022). The closest Source Protection Zone is the Public Supply Source Protection Area for Curragha Public Water Supply located ca. 3.8km north of the proposed project (GSI, 2022). The closest Group Scheme Preliminary Source Protection is located ca. 10.8km west of the proposed project site (GSI, 2022).

The proposed scheme is underlain by a locally important aquifer bedrock which is moderately productive to the north and locally important aquifer bedrock which is moderately productive only in local zones to the south of the proposed scheme (GSI, 2022). There are no gravel aquifers in the immediate vicinity of the proposed scheme. Groundwater vulnerability beneath the proposed scheme ranges from 'low', and 'moderate' to 'high' as classified by GSI (2022). The proposed project is within the Swords Groundwater Body (EPA Code: IE_EA_G_011) (GSI, 2022).

Geology

The proposed project is underlain by dark micrite and calcarenite of the Loughshinny Formation to the north and dark limestone and shale of the Lucan Formation to the south (GSI, 2022). There are no karst features within the vicinity of the proposed project (GSI, 2022). The closest karst feature is a borehole located ca. 4.3km north of the proposed scheme. There are no recorded landslides in the vicinity, with the nearest located ca. 10km to the south of the proposed development. Landslide susceptibility is typically low in the vicinity, with a slightly higher susceptibility on the southern side of the Broadmeadow River. There are no historic mines reported within the vicinity of the proposed project (GSI, 2022).

Flooding

A Strategic Flood Risk Assessment (SFRA) was undertaken as part of Meath County Development Plan (2021-2027) which states that 'Ratoath is exposed to fluvial flooding from the Broadmeadow River. Flood Zone A mainly affects agricultural lands and a small number of residential properties on the eastern side of the settlement.'

Manage flood risk and development in line with approved policies and objectives as set out in Vol. 1 Chapter 6: Infrastructure. At development management stage, any FRAs should include consideration of culvert blockage. Pedestrian walkways may require FRA during planning application stage but the Justification Test is not required.'

With reference to the DOEHLG / OPW publication '*The Planning System and Flood Risk Management, Guidelines for Planning Authorities*' sections of the scheme proposed along existing public / private road is deemed to be local transport infrastructure and is thus classified as less vulnerable development. Sections of the scheme which are proposed adjacent to the Broadmeadow River are deemed amenity open space / recreation and are thus classified as water compatible development.

With reference to the OPW CFRAM flood mapping and Meath County Council map info mapping for the relevant area, parts of the development close to the Riverside walk are situated in Flood Zone A, where the probability of flooding is greater than 1% from fluvial flooding. Areas on existing roads / footpaths are within Flood Zones B, where the probability of flooding is between 0.01% and 1% from fluvial flooding.

The '*Planning System and Flood Risk Management, Guidelines for Planning Authorities*' state that proposed developments such as the proposed Part 8 scheme are appropriate within these locations.

Whilst, the proposed Part 8 scheme is compatible at these locations, given that it is expected that there will be flooding on some parts of the proposed scheme particularly adjacent to the Broadmeadow River, the following measures should be implemented.

- Path to be constructed with a sealed finish to protect from erosion and scouring caused by flood waters and to allow for efficient cleaning of silt post flood event;
- Path to be constructed on a low causeway of 100mm above surrounding surface with appropriate crossfall and longitudinal fall to ensure paths emerges dry post flood event;
- Warning signs to be installed at all entry points to greenway to ensure public awareness to the potential of a flooded path. Repeat signs to also be installed along the route; and,
- Edge of path directly adjacent river bank to be delineated with appropriately spaced marker posts to reinforce spatial awareness of potential deep waters of adjacent river in event of path being significantly flooded.

Archaeology and Cultural Heritage

There are 4no. reported National Inventory of Architectural Heritage (NIAH) sites along the proposed project route. The 4no. NIAH features are as follows:

- House (Reg. No. 14336012) dated to the 1870-1910;
- Shire/Oratory/Grotto (Reg. No. 14336009) dated to the 1950-1960;
- Water Pump (Reg. No. 14336003) dated to the 1850-1890; and,
- House (Reg. No. 14336014) dated to the 1780-1802.

There are 6no. Sites and Monuments Record (SMR) features within the proposed project route. The 6no. SMRs are as follows:

- Linear earthwork (ME044-034012-) – Located within Skryne Road;
- Excavation - miscellaneous (ME044-034013-) - Located within Skryne Road;
- Excavation – miscellaneous (ME044-034014-) – Located within Skryne Road;
- Cistern (ME044-034011-) – Located within Skryne Road;
- Road – road/trackway (ME044-034010-) – Located within Skryne Road; and,
- Cross – Market Cross (ME044-034008-) – Located within Main Road (R125).

Niall Roycroft (2018) completed a '*Desk Based Review and Assessment*' of the proposed scheme. Niall Roycroft states that '*Ratoath is a medieval town (including ME044-034000 to ME044-034016) and the Excavations Bulletin has 43 entries for archaeological works at Ratoath until 2010. Of these works 31 revealed nothing of archaeological significance and 12 revealed archaeological results. The results focus on three areas:*

1. *Evidence of the medieval town in the vicinity of the medieval Motte on Main Street and stretching north along the Skryne Road (laid out c. 1795) past the Church of Ireland;*
2. *Evidence of agriculture in the area of the old Manor House (now the nursing Home) on the R125 to the east of the town; and,*
3. *Bronze Age settlement and burial and early medieval settlement and burial on the Steeplechase estate to the north-west of the town.'*

Niall Roycroft (2018) states that '*there are 16 records on the Sites and Monuments record of Monuments and Places for Ratoath. These include six records connected with the archaeological works results above.....also alongside the Broad Meadow River from Meadowbank Hill near to the R155 junction, the present riverside walk has been built in what looks very much like a disused mill race. This mill race may be a tail race to the old mills that were once located under the nearby Tesco Express development on the R155, but this race could also relate to an earlier mill. The 1913 OS shows the River and mill race channel but also notes an adjacent footpath. This*

mill race ends at a location where there is a modern concrete bridge over the Broad Meadow River, which replaces some 'Stepping Stones' on the 1837 OS and a subsequent bridge (Bridge 1) built by the time of the 1913 OS. A short distance to the east of this bridge, the Broad Meadow River was realigned in the 19th century into its present channel until the location of the present bridge marked with a plaque 'James Corbellis Esq Bridge, 1814' (Bridge 2). James Corbellis (usually spelled Corballis)'.

Niall Roycroft (2018) states that 'many locations in this project are within the Ratoath Historic Town ME044-034 archaeological Zone of Notification and as such will require Notification to the National Monuments Service at least two month in advance of any works so that they can give an opinion on any required or proposed archaeological response. In general the proposed works will be limited to the present street / footpath surfaces and landscaping so there is only a small potential for uncovering archaeological deposits, features or stray finds. However, if there is associated drainage, cable ducting and digging out of soft spots, the works may descend into archaeological levels more connected with medieval Ratoath. Should such works occur, the results are likely to be more connected with old street surfaces, market areas and their previous drainage arrangements than buildings / settlements or graveyards. The two Bridges, Bridge 2 and Bridge 3 should be treated sympathetically regarding any upgrading for use as a cycleway/formal footpath and the Corbellis plaque on Bridge 2 should be retained and cleaned'.

Niall Roycroft (2018) concluded that 'the construction works should be subject to a programme of archaeological monitoring and metal detecting of spoil. These works should be followed by a full archaeological report submitted to the National Monuments Service'.

The majority of the proposed scheme is within Zones of Notification of SMRs. A National Monuments Service notification form will be completed and submitted to the National Monuments Service, a minimum of 2 months before any works are carried out at the Zone of Notification of an SMR feature.

The environmental sensitivity of geographical areas likely to be affected by the proposed development are evaluated further within Section 3.3.2 of this report ('Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development') as required under Schedule 7 of the relevant regulations.

3.2.2. Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).

The proposed project is hydrologically connected to the Malahide Estuary SAC, SPA and pNHA. The proposed project does not lie within any European site, Nature Reserves or Natural Heritage Areas (detailed in Section 3.3.2 of this report). The AA Screening prepared for the proposed project (Atkins, 2022) states that 'It is concluded by the authors of this report that the proposed project poses no likely significant effects on Malahide Estuary SAC and SPA. Thus, it is recommended that it is not necessary for the proposed project to proceed to stage 2 of the Appropriate Assessment process.'

Mullen, D and Keeley, B (2018) prepared a 'Bat Assessment of the proposed cycleway in Ratoath, Co. Meath'. The survey took place on the 12th and 13th of July in 2018 using an EM3 time expansion detectors and kaleidoscope sound analysis software with GPS. Mullen, D and Keeley, B (2018) described the site location as follows '...most trees are immature and unsuitable as roosts, however there are occasional trees with deadwood, cracks and crevices which would be suitable for bat usage. There is considerable light pollution, particularly along the western entrance at Meadowbank.'

Mullen, D and Keeley, B (2018) stated that 'bats were not found roosting in the trees on this site. However, bats were found feeding and commuting along the river. Natterer's bats were found feeding in the woodland section along the river. As Natterer's bats are rarely recorded in Meath and are light intolerant, it is important to keep light pollution to a minimum. Young bats were seen taking their first flights along the river, feeding off the insects in the grasses. The river and surrounding vegetation provide a good feeding area for bats. It is important to retain long grasses and vegetation, particularly between the new cycleway and the river.....this area is important for young common and soprano pipistrelles, and the wooded area is frequented by a Natterer's bat, which is uncommon in Meath'.

Mullen, D and Keeley, B (2018) recommended the following actions:

- 'Avoiding light pollution- Light spillage must not occur on the river, and light pollution must be avoided. This can be achieved by using low level bollard lights, with hoods and cowls fitted to prevent light entering the river area. It is particularly important that light pollution is kept to a minimum in the wooded section of the cycleway, as this is where the Natterer's bat (a light intolerant species) was found.'
- 'Retain trees where possible. Common and soprano pipistrelles were found feeding along the canopy of the trees on the site. These trees provide food, shelter and cracks and crevices to roost in.'
- 'Bat boxes- 4 bat boxes should be placed along the cycleway – Two 2FNSchwiegler bat boxes and 2 NHBS Kent boxes. These should be placed on trees, at least 4m high, with a clear drop below (no

underlying branches – as bats need to drop to start their flight). These can be purchased from online companies principally based in the UK such as www.nhbs.com.

- Management of vegetation- to prevent loss of feeding, grasses and vegetation adjacent to the cycleway should not be mown during the summer months. Long grass and native plants allow insect diversity, which in turn provides food for bats. Whenever the cycleway runs by the river, the area between the river and the cycleway should not be sprayed or cut. If required, a nature panel can be designed (info@wildlifesurveys.net) to explain the 'untidy' areas left for insect diversity and young bats'.

Cunnane Stratton Reynolds carried out an Arborist Survey during November 2019 and 24th February 2022. The survey (carried out in February 2022) findings state that a 'visual inspection from the ground was performed on all existing trees / tree groups on site. Where access allowed, principal individual trees were examined, and reference number tags attached before critical measurements were taken and observations made' (Cunnane Stratton Reynolds, 2022). The survey focused on the impact of the proposed scheme along the Woodland Link Road, the R125 Dunshaughlin Road and Fairyhouse Road. A total of 65no. individual trees were recorded as part of the 2022 survey. Trees were surveyed as individuals or tree groups in accordance with BS 5837 (2012).

The Cunnane Stratton Reynolds (2022) survey highlights the following points:

- 'The proposed scheme where possible uses the alignment of an existing concrete path running parallel to the Dunshaughlin / Woodlands Road, which minimises direct conflict with existing street trees. However, in areas the path encroaches into the existing grass verge in which the street trees are located to varying degrees.'
- 'It is anticipated that most if not all the adjacent street tree's root zones will extend to varying degrees below the adjacent concrete path. To construct the new path/cycleway over this area, without damaging the existing roots, it is proposed to use a 'non-dig' construction method using 'Cellweb'.'
- 'A relatively small number of trees remain in direct conflict with the route alignment and are therefore proposed for removal to facilitate the development, however new tree planting nearby could readily mitigate against the proposed losses, particularly given the relatively young age of the trees.'
- 'Mature trees/tree groups located along the Fairyhouse Road are also in direct conflict with the proposed path/cycleway alignment. The majority of these trees are Ash and most appear to be suffering from or already succumbed to Ash Dieback disease. Given the very strong likelihood the few remaining Ash trees will also become infected and die over the short to medium term, it is not considered worthwhile using the non-dig cellweb system in this location. Replacement planting with suitable native tree species would significantly mitigate against the loss of trees and hedgerow in this location.'
- 'Disturbance of a 'Root Protection Area' may just as readily kill or destabilise a tree over time, by means of root damage/severance and or earth compaction/covering preventing essential transfer of water and air to roots.'
- 'There are a large number of existing trees along the Dunshaughlin / Woodland Rd whose successful retention will be dependent on the use of a 'non-dig' cellweb construction methodology for the proposed path/cycleway where it passes over their root protection areas.'
- 'A number of trees are in direct conflict with the proposed development and are therefore proposed for removal'.

A potential compound location has been identified off the R125 Ashbourne Road. This site is currently an unused maintenance depot under the control of Meath County Council. It is currently secured with palisade fencing and is paved fully in hard standing material. It will be the responsibility of the Contractor to determine a suitable location for the site compound within the proposed development area, but away from any identified environmental sensitive receptors (watercourses etc) so as to avoid potential impacts to the environment and the general public. The final proposed site compound location will be subject to Client approval.

The other relevant aspects of the environment (including human health), which could potentially be significantly affected by the proposed project are receiving groundwater environment, surface water environment, air quality environment, the receiving noise and vibration environment, and the receiving traffic environment, during the construction phase.

The works will mainly involve excavations to a maximum depth of 0.5m bgl along the existing road networks. GSI (2022) have reported a range of 'low' to 'high' groundwater vulnerability ratings beneath the proposed project route. Hence it is unlikely that groundwater will be intercepted and accordingly no significant adverse impacts are anticipated with respect to groundwater quality, resources or flow.

The Broadmeadow River runs parallel to the proposed scheme. A new footpath upgrade works is proposed on western side of Curragha Road. This is to be positioned along the roadway within the existing roadside verge and adjacent to an ornamental hedge within a residential garden. Garden features impacted by the works at this

location will be replaced with same. The proposed scheme will tie into the existing drainage system on the existing road network. Where this cannot occur, new gullies will be installed and tied into the existing drainage system. Accordingly no significant adverse impacts are anticipated with respect to surface quality, levels or flow.

The proposed scheme lies within an urban area and there are sensitive receptors adjacent to the scheme i.e. residential properties along the proposed scheme. Dust may be generated during the construction phase. Construction will require the use of machinery such as dump trucks, mechanic excavators etc. The presence of such machines may result in a temporary increase in noise and dust. The air quality at the proposed project is 'good' (EPA, 2021). However, management of dust will be in line with relevant best practice measures such as those set out in '*Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes*' (NRA, 2011). Due to the nature and scale of the project it is anticipated that the construction works will not have a significant impact on air quality. It is anticipated that the operational phase will likely have a positive impact on air quality.

Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (NRA, 2014). It is anticipated that the works will be scheduled during day-time hours. Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed project will not have a significant impact on noise.

Due to the scale and nature of the project it is anticipated that there may be impacts on traffic volumes during the construction phase of the project. The roadworks will be carried out on a phased basis. A traffic light system or Stop/Go system will be maintained throughout the works area to ensure that traffic is controlled and continues to flow during the construction phase. It is considered that there will be no significant negative impact on traffic during the construction and operational phase of the project.

3.2.3. A Description of Any Likely Significant Effects (To the Extent of The Information Available on Such Effects) of The Proposed Development on The Environment (Schedule 7A(3)).

The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).

The proposed scheme may give rise to air, noise, water emissions and waste. However, the proposed scheme will be designed in order to minimise any potential impacts as a result of these emissions during the operational phase. Standard mitigation measures will be implemented by the Contractor to address potential air and noise emissions during the construction phase. The Contractor will ensure that onsite storm water management during the construction phase is carried out in accordance with relevant best practice measures as set out in Construction Industry Research and Information Association (CIRIA) guidance '*C532 - Control of Water Pollution from Construction Sites*'.

Given the scale and nature of the proposed development any such waste is likely to be generated in very minor volumes. During the construction phase the following waste streams will be generated: construction and demolition (C&D) waste including footways and asphalt / road surface, mixed municipal waste (MMW), recyclables such as plastic wrapping, wooden pallets and paper. All waste will be removed on a regular basis to a designated area in the proposed site compound where it will be segregated and temporarily stored before being recycled or disposed of by the Contractor to an appropriately licenced waste recovery or waste disposal facility. All waste generated will be disposed of by the Contractor in accordance with all relevant waste management legislation. The Contractor will be responsible for segregating each waste type as per the relevant List of Waste (LoW) (also referred to European Waste Catalogue (EWC) code). All waste materials must be removed offsite by a suitably permitted waste haulage contractor who holds a current valid waste collection permit issued by the National Waste Collection Permit Office (NWCPO).

The policy's associated with waste of the Meath County Development Plan 2021-2027 (MCC) states the following:

- '*INF POL 61 To facilitate the implementation of National Waste Legislation, National and Regional Waste Management Policy and the circular economy.*
- '*INF POL 62 To encourage and support the provision of a separate collection of waste throughout the County in accordance with the requirements of the Waste Management (Household Food Waste) Regulations 2009, the Waste Framework Directive Regulations, 2011, the Waste Management (Commercial Food Waste) Regulations 2015 and other relevant legislation to meet the requirements of the Regional Waste Management Plan.*

- *INF POL 63 To encourage the development of waste infrastructure and associated developments in appropriate locations, as deemed necessary in accordance with the requirements of the current Eastern Midlands Region Waste Management Plan and the Draft Waste Facility Siting Guidelines 2016 (when finalised) or any subsequent replacement guidelines.*
- *INF POL 64 To adopt the provisions of the waste management hierarchy and implement policy in relation to the County's requirements under the current or any subsequent Waste Management Plan. All prospective developments in the County shall take account of the provisions of the regional waste management plan and adhere to the requirements of the Plan. Account shall also be taken of the proximity principle and the inter-regional movement of waste.*

These policies will be implemented during the construction and operation of the proposed development.

The Contractor will be obliged to prepare a project specific Resource Waste Management Plan (WMP) prior to commencement of the proposed development in accordance with the relevant guidelines 'Best Practice Guidelines for the preparation of resources & waste management plans for construction & demolition projects' prepared by the EPA (2021).

The operational phase of the project should be accompanied by an increase in cyclists and an associated reduction in vehicular traffic. The proposed scheme is not likely to have a significant environmental effect with regard to expected residues and emissions and the production of waste.

The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).

During the construction of the proposed project a limited amount of natural resources in the area will be utilised for the proposed project. There will be a limited amount of existing greenfield space used for the proposed project as the majority of the proposed scheme will be within the existing road network / footpaths. It is anticipated that a small number of trees will be removed however these trees will be replaced with an equal or greater number of native trees (of local provenance) as part of the proposed scheme. '*On balance removal of a small number of trees and subsequent woodland improvement should result in a slight negative to potentially positive impact on this stretch of woodland*' (CSR, 2022). The appointed Contractor will be required to prepare Landscape Plan identifying areas of vegetation to be protected; tree planting and areas of biodiversity gain. Trees and vegetation shall be protected as required in accordance with BS:5837:2012 during construction and demolition works.

Cunnane Stratton Reynolds (2022) recommend the following measures for the proposed scheme:

- *'Tree Works: Subject to the required permissions removal / felling works, should be performed prior to project commencement, by reputable contractors in accordance with BS 3998:2010 and current best practice. Removal of scrub vegetation and ivy clearance should preferably be performed in winter outside of the bird nesting season. Tree felling should be preceded by a competent assessment as to the presence of any protected wildlife species, where required specialist advice should be sought if necessary.*
- *Protective Fencing: Following above permitted, priority tree works, protective fencing (barriers) should be erected in the positions and alignments as indicated on the Tree Protection Plan. Fencing should be in accordance with BS 5837:2012 unless otherwise agreed with the planning authority. Commencement of development should not be permitted without adequate protective fencing being in place. This fencing, enclosing the minimum tree protection areas indicated, must be installed prior to any plant, vehicle or machinery access on site. Fencing should be signed 'Tree Protection Area – No Construction Access'. Fencing is not to be taken down or re-positioned without written approval of the project Arborist. No excavation, plant or vehicle movement, materials handling, or soil storage is to be permitted within the fenced tree protection areas indicated on plan.*
- *Cellweb: The existing area of concrete paving shall be lifted in sections with care to avoid damaging the root system of trees likely to be found below it. On removal the new path/cycleway shall be constructed in strict accordance with the non-dig construction design using cellweb system or similar approved in accordance with manufacturer's specifications and to the engineers and arborists satisfaction.*
- *Monitoring & Compliance: A number of potentially critical future works in proximity to retained trees are potentially to be undertaken in association with the development, these should be done in accordance with approved method statements and under direct supervision by a qualified consultant Arborist. Therefore, during the development, a professionally qualified Arborist is recommended to be retained as required by the principal contractor or developer to monitor and advise on any works within the RPA of retained trees to ensure successful tree retention and planning compliance. It is advised that tree protection fencing, any required special engineering and supervision works etc. must be included / itemised in the main contractor tender document, including responsibility for the installation, costs, and maintenance of tree protection measures throughout all construction phases'.*

There are a number of locations along the proposed scheme, namely along the Dunshaughlin Road on approach to the GAA grounds and the Woodlands Link, where the proposed route is in close proximity to trees and the root protection areas of trees, in some instances less than one metre. This can present two issues:

- Construction works causing harm to tree root systems; and,
- Root intrusion to the footpath and cycle track foundations leading to deformation of pavement surface;

At these locations, and where practicably possible, it is intended to retain existing trees rather than remove them as there are opportunities and methodologies to allow for pathway construction whilst also offsetting impacts on the root protection area of trees adjacent to the pathway. Required pathway excavations would be relatively shallow and the use of vacuum extraction of ground materials can allow for the retention of tree root systems and allow for the installation of tree pits with structural soil under the pathway. The installation of root barrier membrane in both a vertical line along the path edge and also in a horizontal line under the pathway can reduce root lift of the pavement and reduce compression impacts on the tree roots. The retention of tree roots, the installation of structurally solid tree pits and the use of root barriers and root deflectors can allow for the construction of the pathway in close proximity to existing trees whilst retaining these trees and allowing them to develop naturally. Similar methodologies were successfully employed during the construction of the Luas Cross City project in Dublin City centre. This methodology becomes limited where structural roots (large / thick roots) are already established in close proximity to the proposed pathway. Whilst the extent of large, thick structural roots (which cannot be deflected) is unknown at this time, further surveys will be undertaken by an arboriculturalist at detailed design stage to determine this. The design of the scheme has been developed so as to avoid mature native trees and as such the potential for the scheme to interact with large structural roots is very limited. In some instances there may be occasional loss of roadside landscape feature trees and a comprehensive landscape design will allow for like for like replacement of landscaping features where required.

The proposed project involves an anticipated maximum excavation depth of 0.5m bgl to facilitate the foundations for the proposed footpaths / pavements and the ducting for the signalling associated with the scheme. All soil requiring disposal offsite will require waste classification in accordance with EPA requirements as set out in the documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2015), and 'Determining if waste is hazardous or non-hazardous' (EPA, 2018), and all relevant waste management legislation. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils which require offsite removal and disposal.

Therefore, based on the environmental setting, and taking account of the nature, scale and location of the proposed project other than standard construction materials, the proposed project (during both construction and operational phases) will not have a significant impact on natural resources.

3.2.4. The Compilation of The Information at Paragraphs 1 To 3 Shall Take into Account, where Relevant, the Criteria set out in Schedule 7 (Schedule 7A(4)).

All relevant criteria set out in Schedule 7 of the Regulations is presented in Section 3.2 ('Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA') of this screening report.

During the preparation of Sections 3.3.1 to 3.3.3 (i.e. Schedule 7A (1) to (3)) all pertinent Schedule 7 information has been taken account of as required, with specific details presented in the following section of this report (Section 3.3 and 3.4).

3.3 Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA

3.3.1 Characteristics of proposed development (Schedule 7(1))

The size and design of the whole of the proposed development (Schedule 7(1)(a))

Refer to Section 3.2.1 under 'A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))'.

Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b))

Committed Development

A search of Meath County Planning records has been undertaken for the applications submitted within the past 5 years in the vicinity of the proposed development (last reviewed 01/03/2022). Some of the granted applications have already been completed and of those which are not completed, most are generally small scale in nature (i.e. residential extension works, or property improvement works). Completed or granted applications of such

small scale (such as residential improvements) have not been considered further in terms of potential for cumulative impacts.

There are 6no. project / committed developments, which have not yet been built and have been further evaluated with respect to cumulative impacts with the proposed Ratoath Pedestrian and Cycling Scheme, as follows.

- **Toby Developments Ltd. Construction of 2no. dwellings and associated works (RA170575). Granted October 2017.**

The development will consist of (1) the demolition of the existing pitched roof, single storey, 2 bedroom bungalow on the site. (2) Construction of 2 no. 4 bedroom two storey dwellings with rooflights. (3) Closing up of the existing vehicular access from Dunshaughlin Road, new boundary walls and 2 no. separate vehicular entrances off Dunshaughlin Road, with all necessary landscaping, drainage and ancillary works to facilitate the development. Significant further information/revised plans submitted on this application. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

- **Jenny Chen . Change of use to 3 bed apartment and associated works (RA180174). Granted July 2018.**

Change of use of 2nd floor unit from an existing office into a 3 bed apartment and associated site works . There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

- **Gas Networks Ireland. District Regulator Installation and associated works (RA180781) Granted September 2018.**

The development will consist of a safety enhancement to the existing gas mains network comprising a District Regulator Installation (DRI) made up of a pressure relief unit (cabinet c. 1.8m in height) and associated vent flue (c. 3.5m in height) as well as site development works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

- **Colm Mac Daibhéid. Construction of 7no. new home and associated site development works (RA180448) Granted February 2019.**

A revised design for 7 new homes comprising 4 no. 4 bed semi-detached houses over 2 storeys and 3 no. 4 bed detached houses over 2 storeys and associated site development works, further to Condition No. 3 of An Bord Pleanála's Order (PL17.247993) on 6th July 2017. Significant further information/revised plans submitted on this application. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

- **David Maher. Construction of detached dwelling house and associated works (RA190682). Granted October 2019.**

The demolition of existing garage and shed, the construction of 2 No. storey and a half dwellings and associated site works. The site works will include alteration of existing site entrance, foul and surface water connections to the public network and the installation of a surface water soak away serving one of the proposed dwellings. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

- **Silverstream Healthcare Limited. Extension of duration of Nursing Home Extension (RA201041) Granted September 2020.**

Extension of Duration of Planning Permission RA150870 - 2 storey extension to existing Nursing Home to provide 27 ensuite bedrooms, lounges, bathrooms, Treatment Room and additional parking (amended design from previously granted Permission). There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

Given the nature, scale and location of these granted developments and the proposed project no significant impacts are anticipated. It is considered the proposed Ratoath Pedestrian and Cycle Scheme will not act in combination to give rise to any cumulative impacts.

3.3.1.1 The nature of any associated demolition works (Schedule 7(1)(c))

Refer to Section 3.2.1 under '*A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))*'. No demolition works are proposed as part of the proposed project.

3.3.1.2 The use of natural resources, in particular land, soil, water and biodiversity (Schedule 7(1)(d))

Refer to Section 3.2.3 under 'The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).'

3.3.1.3 The production of waste (Schedule 7(1)(e))

Refer to Section 3.2.3 under 'The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).' The proposed project is not likely to have a significant environmental effect with regard to the production of waste. All waste will be removed to an appropriately licenced/ permitted waste disposal/ recovery facility.

3.3.1.4 Pollution and nuisances (Schedule 7(1)(f))

Refer to Section 3.2.2 under 'Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2))'. There will be no likely significant effects on the Broadmeadow River and Malahide SAC/SPA/ pNHA due to the limited nature of works proposed to be carried out (refer to section 3.2.1). No in-stream works will occur along the Broadmeadow River. The appointed contractor will be required to put in place site specific pollution control measures to protect local ecology and water quality. The distance to the SAC and dilution offered by the Broadmeadow River is such that negative impacts on Malahide Estuary SAC are not anticipated. A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2022). The project has been assessed with regards to the likely significant effects of the project on European sites within the zone of influence of the proposed project. The Screening for AA concluded that '*the proposed project poses no likely significant effects on any European sites, including Malahide Estuary SAC and Malahide Estuary SPA. Thus, it is recommended that it is not necessary for the proposed project to proceed to stage 2 of the Appropriate Assessment process*'.

Biosecurity protocols will be implemented during the construction phase of the proposed project to prevent the introduction of invasive species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011, as amended, to site. The Stage 1 Screening for Appropriate Assessment states the following (Atkins, 2022):

'All equipment intended to be used at the site shall be dry, clean and free from debris prior to being brought to site.'

If drying out of equipment is not feasible, equipment should be either:

- i. power steam washed at a suitably high temperature or at least 65 degrees, or
- ii. disinfected with an approved disinfectant, e.g. Virkon or an iodine-based product. It is important that the manufacturer's instructions are followed and if required, the correct contact times are allowed for during the disinfection process. Items that are difficult to soak should be sprayed or wiped down with disinfectant.

During the duration of the proposed project, if equipment is removed off-site to be used elsewhere, the said equipment shall be cleaned and disinfected prior to being brought back to the works area of the proposed project.

Appropriate facilities shall be used for the containment, collection and disposal of material and/or water resulting from washing facilities of vehicles, equipment and personnel.

Importation of materials shall comply with Regulation 49 of the EC (Birds and Natural Habitats) Regulations 2011. In relation to 3rd Schedule species, but notably Japanese knotweed (*Reynoutria japonica*) and Himalayan balsam (*Impatiens glandulifera*), the following general biosecurity and containment measures shall be undertaken during the construction phase of the project: -

- Identify and mark out areas of infestation;
- Fence off areas of infestation in advance of and during construction works;
- Erect signage identifying restricted areas;
- Avoid, where possible, using plant and machinery in areas of invasive species infestation;
- Plant and equipment used within areas of invasive species infestation should be inspected post works and washed down in a contained area;

Site staff should be aware that root zones / control zones for knotweed species extend a minimum of 7m from the extent of the invasive species' surface vegetation' (Atkins, 2022).

Atkins (2022) Ecology Report states the following recommendations in relation to landscaping and biodiversity enhancement are listed:

- 'The appointed Contractor will be required to prepare a Landscape Plan identifying area of vegetation to be protected; tree planting and areas of biodiversity gain. This should be prepared in consultation with a suitably qualified ecologist, Meath County Council's heritage officer and with reference to the Ratoath Community Biodiversity Action Plan 2016-2020 (D'Arcy, 2016).

- In line with the All Ireland Pollinator plan, a wildflower meadow will be established between the compensatory tree planting on the Woodland Links Road. This meadow will be incorporated into the existing landscaping as a biodiversity enhancement feature. Areas disturbed following tree planting will be graded and seeded with an All-Ireland Pollinator Plan Wildflower mix, while existing intact grassed areas will be left unmown until September and managed annually in accordance with guidelines on the creation and management of a wildflower meadow. If the species composition is found to be dominated by ornamental species within the sward, established species-rich plugs should be incorporated into the landscape plan to enhance species diversity within the sward. Plug compositions should be in line with All-Ireland Pollinator Plan guidelines. The overall aim of this feature is to form a continuous linear meadow running along the Woodland link road within the existing grassed verge.
- It is worth considering, as part of an ongoing management program, the selective thinning of a limited number of young trees within Tree Group 1 on the R125 Dunshaughlin Road (see accompanying Tree Report; CSR, 2022). Removing those specimens which have bolted, and or are of relatively poor form, will facilitate improved development of other trees within the group which are currently overcrowded and have inadequate space for strong future development. Most of the larger trees within this group are heavily obscured by ivy, (which should be carefully removed to facilitate full inspection), however they appear to be in good physiological condition. Given their roadside location it would be prudent to consider a crown cleaning exercise to remove rubbing limbs, future compression forks and reduce the length of limbs overhanging adjoining carriageway along with any other imbalances in growth. Where appropriate enforcement planting of hazel should be considered.
- Post construction, it is recommended that habitat enhancement measures be implemented as part of any landscaping proposals along the Greenway. This could include sowing native wildflower and grass mixtures adjacent to the newly constructed path on the northern side of the river. The installation of new path north of the woodland, could itself benefit the regeneration of an herbaceous field layer within the woodland due to the use of a dedicated path and thereby reducing footfall through the woodland.
- As noted, in order to further enhance ecological pathways within the greenway along the Meadowbrook River; bat boxes will be erected along the cycleway. Vegetation along the greenway will be managed to promote native species-rich ground flora. Planting should seek to establish and / or maintain ecological connectivity through the site. Vegetation adjacent to the cycleway should not be mown during the summer months. Long grass and native plants allow insect diversity, which in turn provides food for bats. Where the cycleway runs by the river, the area between the river and the cycleway should not be sprayed or cut. A nature panel can be designed to explain the 'untidy' areas left for insect diversity and young bats. All trees along the Cycle Network should be maintained and damage to root zones must not occur incorporating small adjustments to the path alignment'.

The construction phase of the project may generate waste such as metals, asphalt, construction and demolition waste, plastic wrapping, wooden pallets or soil arisings. As outlined previously (under 'The production of waste (Schedule 7(1)(e))), appropriate robust waste management procedures will be implemented by the Contractor to ensure that any minimal volumes of waste which will be generated during the construction phase do not pose a pollution / nuisance risk to the receiving environment.

In the event that any excavated soils need to be disposed of offsite as part of the proposed project, such soils/waste material will require waste classification in accordance with EPA requirements as set out in the documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2015), and 'Determining if waste is hazardous or non-hazardous' (EPA, 2018), and all relevant waste management legislations. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils/material which require offsite removal and disposal.

There are numerous dwellings located along the proposed scheme, which would be considered sensitive receptors in terms of potential dust or noise nuisance. Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011).

Construction will require the use of machinery such as excavators etc. and the presence of such machines may result in a temporary increase of noise. The contractor will be required to avoid leaving machinery idling and required to change reverse indicators beepers. Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (NRA, 2014). The majority of the works will be carried out during daytime hours.

No significant impacts from pollution or nuisances are anticipated from the proposed project.

3.3.1.5 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 (Schedule 7(1)(g))

There are 3no. Seveso (Control of Major Accident Hazards Regulations (COMAH)) establishments within 15km of the proposed scheme; Barclay Chemicals Manufacturing Ltd and Chemco (Ireland) Limited Damastown are Upper Tier Seveso sites, and are both located in Mulhuddert ca. 10.9km south-east of the proposed scheme. Guerbet Ireland ULC is located ca. 10.6km south east of the proposed scheme in Mulhuddert. Due to the distance of these Seveso sites from the proposed scheme, the proposed works are not located in a high-risk area with respect to major accidents/ disasters. Due to the nature, scale and location of the proposed project, there will be no impact on any of these Seveso sites.

With reference to the OPW CFRAM flood mapping and Meath County Council map info mapping for the relevant area, parts of the development close to the Riverside walk are situated in Flood Zone A, where the probability of flooding is greater than 1% from fluvial flooding. Areas on existing roads / footpaths are within Flood Zones B, where the probability of flooding is between .01% and 1% from fluvial flooding.

The '*Planning System and Flood Risk Management, Guidelines for Planning Authorities*' state that proposed development such as the proposed Part 8 scheme are appropriate within these locations.

Whilst the proposed Part 8 scheme is compatible at these locations, given that it is expected that there will be flooding on some parts of the proposed scheme particularly adjacent to the Broadmeadow River, the following measures will be implemented.

- Path to be constructed with a sealed finish to protect from erosion and scouring caused by flood waters and to allow for efficient cleaning of silt post flood event;
- Path to be constructed on a low causeway of 100mm above surrounding surface with appropriate crossfall and longitudinal fall to ensure paths emerges dry post flood event;
- Warning signs to be installed at all entry points to greenway to ensure public awareness to the potential of a flooded path. Repeat signs to also be installed along the route; and,
- Edge of path directly adjacent river bank to be delineated with appropriately spaced marker posts to reinforce spatial awareness of potential deep waters of adjacent river in event of path being significantly flooded.

The contractor will be required to design and implement traffic plans as required in accordance with the '*Guidance for the Control and Management of Traffic at Road Works*' (TII, 2010).

Due to the nature and scale of the works, the site setting of the proposed scheme, it is considered that the overall risk of major accidents and / or disasters associated with the proposed scheme is extremely low and does not warrant further consideration.

3.3.1.6 The risks to human health (for example, due to water contamination or air (Schedule 7(1)(h)) pollution)

Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in '*Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes*' (NRA, 2011).

Noise levels during the construction phase, will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (NRA, 2014). The Contractor will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). No significant impact on human health due to noise pollution is anticipated to occur during the operational phase of the project.

There are reported public supplies (GSI, 2022) within the vicinity of the proposed scheme; however the maximum excavation depth during construction will be ca. 0.5m bgl. Accordingly there will be no significant impact on human health. The proposed scheme is underlain by a locally important aquifer bedrock which is moderately productive to the north and locally important aquifer bedrock which is moderately productive only in local zones to the south of the proposed scheme (GSI, 2022). Groundwater vulnerability beneath the proposed scheme ranges from 'low', and 'moderate' to 'high' as classified by GSI (2022). Due to the nature and scale of the proposed project it is not anticipated to have a significant impact on groundwater quality, resources or flow.

Given the location, nature and scale of the proposed project, the overall risk to human health is low.

3.3.2 Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development (Schedule 7(2))

The existing and approved land use (Schedule 7(2)(a))

The project will be constructed within an urban setting of Ratoath Town. The location of the proposed project has been detailed previously in Section 3.3.1 under Schedule 7A (1)(a).

The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground (Schedule 7(2)(b))

Refer to Section 3.2.3 under *The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b))*.

The absorption capacity of the natural environment, paying particular attention to the following areas (Schedule 7(2)(c)):

(i) Wetlands, riparian areas, river mouths

There will be no significant impacts on wetlands, riparian areas and river mouths as a result of the proposed scheme.

(ii) Coastal zones and the marine environment

The proposed project is located ca. 23km from the Irish Sea. Therefore, it is not anticipated that it will have a significant impact on the coastal zone or marine environment.

(iii) Mountain and forest areas

There are no mountain or forest areas within 2km of the proposed project and therefore no impacts on this habitat type.

(iv) Nature reserves and parks

There are no nature reserves or national parks located within 15km of the proposed project.

(v) Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive

The proposed scheme does not lie within, nor does it intersect with any European sites. There are 3no. European sites within the Zone of Influence (ZoI) of the proposed scheme; 2no. Special Areas of Conservation (SAC) and 1no. Special Protection Area (SPA). The proposed scheme is located ca. 14km south of 1no. SAC; Rye Water Valley/Carton SAC (Site Code: 001398), there is no hydrological or ecological connectivity between the proposed development and this SAC. The Broadmeadow River however, is hydrologically linked to Malahide Estuary SAC (site code 000205) and Malahide Estuary SPA (site code 004025), which are located ca. 19.5km and 20.6km downstream, respectively, of the proposed scheme.

There will be no land take from any of the designated sites within 15km of the proposed project and, based on the findings of the Stage 1 Appropriate Assessment Screening report (Atkins, 2022) there will be no potential significant adverse effects to European sites arising from the proposed project.

The proposed project does not lie within a nationally designated conservation area. There are no Natural Heritage Area (NHA) sites or proposed Natural Heritage Area (pNHA) sites within 15km of the proposed project. Malahide Estuary pNHA (000205) is located to the north ca. 19.5km downstream of the proposed scheme with hydrological connectivity along the Broadmeadow River. The pNHA overlaps in extent with the SAC and is designated for the same coastal habitats.

There is no anticipated potential for significant impact on areas classified or protected under legislation.

(vi) Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.

The proposed project lies within the Swords groundwater body (GWB) (EPA Code: IE_EA_G_011) which has a 'good' groundwater quality status for the period of 2013-2018 (EPA, 2022) and is currently 'Not at Risk' of failing to meet relevant WFD objectives. Due to the nature and scale of the works the proposed project is not anticipated to significantly impact groundwater quality.

The Ratoath Stream, referred to as the Broadmeadow River (IE_EA_08B020400) flows in close proximity to the proposed scheme. The proposed scheme is within the Nanny-Delvin Water Framework Directive (WFD) Catchment area and the Broadmeadow sub-catchment area. There is 1no. watercourse (The Broadmeadow River) (EPA Code: IE_EA_08B020400) within the vicinity of

the proposed project which appears to travel in an easterly direction to discharge to the Irish Sea ca. 23km from the proposed project.

The Broadmeadow River has been assigned 'poor' surface water quality status under the WFD for the period of 2013-2018; and is 'at risk' of failing to meet the relevant WFD objectives. Both upstream and downstream stretches of the watercourse is 'at risk' of failing to meet the relevant WFD objectives.

It is considered that due to the nature and scale of the project the works will not have a significant impact on baseline surface water quality.

Air quality in the area is reported as 'good' (EPA, 2021). Dust may be generated during the construction phase which has the potential to impact on human health. However, management of dust will be in line with best practice such as that set out in '*Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes*' (NRA, 2011). Due to the nature and scale of the project it is anticipated that there will be no significant impact on air quality.

It is anticipated that during construction there may be an increase in noise volumes. Noise levels shall not exceed the indicative levels of acceptability for construction noise in a rural environment as set out in the TII guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (TII, 2014).

It is considered that due to the nature and scale of the works there will be no significant impact on baseline air and water quality from the proposed project.

(vii) Densely populated areas

The proposed project will be constructed within the town of Ratoath which is a well populated area. Ratoath Town had a population of 9,533 in 2016 (CSO, 2016). It is anticipated that there will be no significant negative impact on densely populated areas during construction. The creation of the cycle and pedestrian scheme will reduce the volume of vehicular traffic using the routes and, will improve air quality and noise levels and provide additional social and recreational infrastructure within the town. It is considered therefore that the proposed scheme will potentially have a positive impact on this densely populated area during the operational phase.

(viii) Landscapes and sites of historical, cultural or archaeological significance

Refer to 3.3.2 under '*A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b))*'.

There are a number of Record of Monuments & Places (RMP) features or National Inventory of Architectural Heritage (NIAH) sites within close proximity of the site. Niall Roycroft (2018) states that '*many locations in this project are within the Ratoath Historic Town ME044-034 archaeological Zone of Notification and as such will require Notification to the National Monuments Service at least two months in advance of any works so that they can give an opinion on any required or proposed archaeological response*'. Niall Roycroft (2018) concluded that '*the construction works should be subject to a programme of archaeological monitoring and metal detecting of spoil. These works should be followed by a full archaeological report submitted to the National Monuments Service*'.

The proposed project will be constructed predominantly within the footprint of the existing town centre and approach roads and the cycleway along the Broadmeadow River in Ratoath. There are no protected views or landscapes along the proposed route.

It is considered that due to the nature and scale of the works there will be no significant impact on landscapes and sites of historical, cultural or archaeological significance from the proposed project.

3.3.3 Types and characteristics of potential impacts (Schedule 7(3))

The likely significant effects on the environment of the proposed project have been evaluated taking into account the following specific criteria.

The magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected) (Schedule 7(3)(a))

The spatial extent of potential impacts is limited to the localised footprint of the proposed project (refer to Figure 1-1). Based on the location, current site setting, and the nature of the proposed project, any potential impacts (during the construction and operational phases) are not likely to be significant in magnitude.

The nature of the impact (Schedule 7(3)(b))

There will be no significant impact on the receiving environment arising from the proposed project (during the construction or operational phases).

The transboundary nature of the impact (Schedule 7(3)(c))

There is no potential for transboundary impacts as a result of the proposed project (during the construction or operational phases).

The intensity and complexity of the impact (Schedule 7(3)(d))

There will be no significant impact on the receiving environment arising from the proposed project (during the construction or operational phases).

The probability of the impact (Schedule 7(3)(e))

The probability of impacts on the receiving environment is low given the following considerations:

- The receiving environment is not considered to be at risk of significant impact due to the nature and scale of the proposed project; and,
- The Contractor will be obliged to implement standard best practice procedures prior to commencement of the proposed project including all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.

The expected onset, duration, frequency and reversibility of the impact (Schedule 7(3)(f))

The probability of impacts on the receiving environment is considered to be low, as previously outlined. Therefore, there shall be no requirement for the reversibility of the impacts caused by this project (during the construction or operational phases).

The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(3)(g))

As previously detailed no significant cumulative impacts associated with the project (during the construction or operational phases) have been identified, arising from other existing and/or approved projects. Refer to Section 3.3.1 under '*Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b))*'.

The possibility of effectively reducing the impact (Schedule 7(3)(h))

Significant effects on the receiving environment are not anticipated as a result of the provision of the proposed scheme (during the construction or operational phases).

3.4 Potential for Significant Effects on the Receiving Environment

All relevant information as required under Schedule 7A has been provided on behalf of Meath County Council and is presented within Section 3.2 of this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed Planning and Development Regulations (2001-2022) (Schedule 7), as presented within Section 3.2 of this screening report.

Based on the information provided within Section 3.2 and 3.3 of this report, and summarised below, it is considered that due to the size, nature, and characteristics of the proposed development, no significant effects on the receiving environment are expected; hence the preparation of a sub-threshold EIAR is not required.

3.5 Screening Conclusion

This EIA screening report has been carried out in accordance with the Planning and Development Regulations as amended 2001- 2022 (which give effect to the provisions of EU Directive 2014/52/EU), and the Roads Acts 1993-2021. The report assessed the impact of the Ratoath Pedestrian and Cycle Scheme in conjunction with committed developments in the surrounding area.

Based on all available information, and taking account of the scale, nature and location of the proposed project it is our opinion that the preparation of an EIAR is not a mandatory requirement (under Section 50 of the Roads Acts 1993-2021). The project is deemed a sub-threshold development; hence the potential for significant environmental effects arising as a result of the proposed project has been evaluated, in accordance with the requirements of Schedule 7A and Schedule 7 of the Planning and Development Acts 2001-2022.

Key findings are summarised as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area;
- Limited noise, vibration and dust emissions may be generated during construction; however, this is anticipated to be minimal in effect and will cause no significant impacts;

- There will be no significant impact on biodiversity, groundwater, surface water or traffic; and,
- There will be no significant impacts on recorded monuments or historic features.

In summary, no significant adverse impacts to the receiving environment will arise as a result of the proposed scheme.

Accordingly, we consider that the preparation of an EIAR is not required for the Ratoath Pedestrian and Cycle Scheme. However, the competent authority will ultimately determine whether an EIA is required or not.

4. References

Atkins (2022) Screening for Appropriate Assessment

Atkins (2022) Ecology Report

Caroline Shiel (2021) Ecological survey

CIRIA (2001). Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors

Cunnane Stratton Reynolds (2019) Arborist Survey

Cunnane Stratton Reynolds (2022) Arborist Survey

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

Department of the Environment, Community & Local Government. (2013), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Department of the Environment, Heritage and Local Government (2003) Guidance for Consent Authorities regarding sub-threshold Development. Published by the Stationery Office.

Environmental Protection Agency (EPA), 2017. 'Revised Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft'

Environmental Resources Management (2001) Guidance on EIA Screening. Published by the European Commission

European Commission, (2015) Environmental Impact Assessment – EIA, Overview, Legal context.

European Council Directive (EC) 85/337/EU of 1985 on Environmental Impact Directive

European Council Directive (EC) 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

European Council Directive (EU) 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.

European Council Directive (EU) 2011/92/EU on the assessment of the effects of certain public and private projects on the environment

European Council Directive (EU) 2014/52/EU of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

Fossette, J. (2000). A Guide to habitats in Ireland. The Heritage Council.

Geological Survey of Ireland (GSI) 2021. <https://www.gsi.ie/en-ie/Pages/default.aspx>. (Consulted February 2022).

Health and Safety Executive. Notified Seveso Establishments https://www.hsa.ie/eng/Your_Industry/Chemicals/Legislation_Enforcement/COMAH>List_of_Establishments/ (Consulted February 2022).

Local Government (Planning and Development Act) 1963.

MCC (2021) Strategic Flood Risk Assessment (SFRA)

Meath County Development Plan 2021-2027

Mullen, D and Keeley, B (2018) 'Bat Assessment of the proposed cycleway in Rathaoth, Co. Meath'.

National Inventory of Architectural Heritage (2021). www.buildingsofireland.com - (Consulted 09/11/2021).

National Monuments Service, Historic Environment Viewer <http://webgis.archaeology.ie/historicenvironment/> (Consulted February 2022).

National Parks & Wildlife Service. <https://www.npws.ie/protected-sites/spa>. (Consulted February 2022).

Niall Roycroft (2018) 'Desk Based Review and Assessment'

NRA (2009). Guidelines for Assessment of Ecological Impacts on national road schemes. Published by National Roads Authority.

NRA (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes. Published by the National Roads Authority

NRA (2014) Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes. Published by the National Roads Authority

Office of Public Works (2009). 'The Planning System and Flood Risk Management; Guidelines for Planning Authorities'.

Office of Public Works (2021). OPW National Flood Hazard Mapping Web Site. Available at: - <http://www.floodmaps.ie/> (Consulted February 2022)

Statutory Instrument S.I. No. 296 of 2018. European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Statutory Instrument S.I. No. 349/1989. European Communities (Environmental Impact Assessment) Regulations, 1989.

Statutory Instrument S.I. No. 600 of 2001. Planning and Development Regulations 2001.

Water Framework Directive (2021)
http://watermaps.wfdireland.ie/NsShare_Web/SessionTimeout.aspx?Culture=&UICulture=&Theme=Geocortex_Essentials&referrer=http%3A%2F%2Fwatermaps.wfdireland.ie%2FNsShare_Web%2FViewer.aspx%3FSite%3DNsShare%26ReloadKey%3DTrue (Consulted February 2022)

WS Atkins Ireland Limited

Atkins House
150 Airside Business Park
Swords
Co. Dublin
K67 K5W4

Tel: +353 1 810 8000

© WS Atkins Ireland Limited except where stated otherwise