comhairle chontae na mí
meath county council

N52 Calliaghstown Road Safety Improvement Scheme

Statutory Approval Process
'Part 8' Application
Written Statement (Volume 1)

Tre Neart le Cheile

Produced by:
Transportation Section
Meath County Council
19th October 2022

Contents – Volume 1

1 Introduction and Description

The townlands of Calliaghstown, Lackmelch, Barfordstown and Townspark are located south west of Kells town in County Meath. The townlands contain a considerable amount of one-off dwellings in a rural agricultural setting, many of which are located along (ribbon development) and accessed off the N52 national secondary road, with others located along and accessed off the Boolies(L68350) and The Rhine (L68355) local roads which themselves join the N52 road. Road safety concerns have been expressed by the residents and supported by their elected representatives. The area is commonly known as Balrath, although Balrath Cross, Demesne and townland are all located approx. 600m southwest of the proposed development.

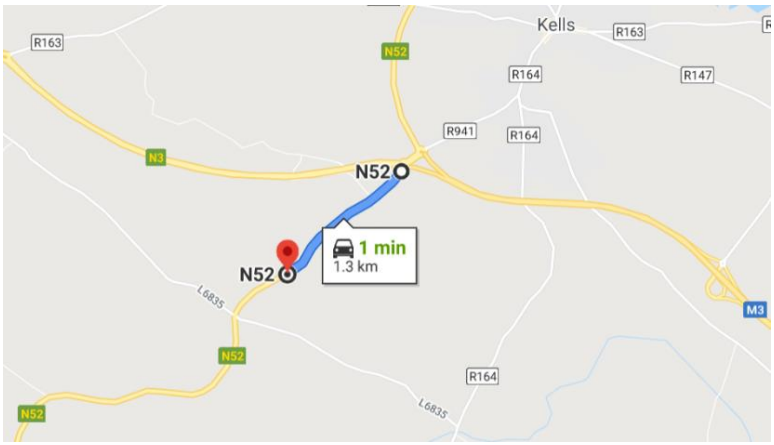
Meath County Council Transportation Section has investigated these concerns along with appropriate relevant factors and decided to progress a proposed Road Safety Improvement Scheme (RSIS), shown generally in Figure 1 and 2 below. Broadly speaking there are three distinct elements to the proposed scheme:

(1) Junction improvement works at N52-L68350 Boolies road and the N52-L68355 The Rhine road junctions

(2) Provision of two Type A gateways to inform of speed limit and reduce the speed of vehicular road users and

(3) provision of a uniform cross section with a narrowed carriageway, footpath and verges for pedestrians between the gateways. The proposed footpath (approximately 950m long and 1.8m wide) and grass verges primarily will extend from the junction of the N52 with the Rhine road, L68355 primarily along the northside of the N52 and join the existing footpath at M3-N3-N52 roundabout at Townspark, Kells Co. Meath.

Meath County Council Transportation Section now seek statutory consent for a proposed development (a road safety improvement scheme) under the Planning and Development Act 2000-2021 as amended and Planning and Development Regulations 2001-2021 (Part 8), commonly known as 'Part 8'.



Figures 1 & 2 – Site location and extents map for proposed RSIS N52 Calliaghstown, Co. Meath (Courtesy Google Maps)

1.1 Background and Description

1.1.1 Background of and Existing Development in the proposed development area

Various mapping from Ordnance Survey Ireland(OSI) shows continuous development over previous centuries, with a series of late 19th century and modern 20th century houses constructed. The 1837 OS map shows the southern side of the N52 here is partly within the Rockfield House demesne (in both Rockfield and Lackmelch townlands) and a now demolished Lodge, and the N52 along this stretch was developed with estate and ribbon development housing. Subsequent mapping shows this development was altered considerably by 1913 and has again altered significantly with many houses being built in the 20th century. Currently there are 47 residences within or immediately adjacent to the proposed development area as well as 4 farmyards.

1.1.2 N52 National Secondary Road

The N52 road is the main road in the area and provides the means of local access to and from the area. The N52 road is a national secondary road running from Dundalk to Tullamore, passing through Kells then south west to Delvin and provides a key national strategic movement function. The N52 road as a national road falls under the remit of Transport Infrastructure Ireland (TII).

The N52 road where the development is proposed currently has approximately 60 accesses along its length (residences, fields, farm yards, farm access lanes as well as two public roads) within the proposed development area. As such the N52 road has an important 'local access' function.

In engineering terms, the road is considered a 'legacy road' in that it's overall geometry and alignment has not been designed to a particular standard(s) but rather the road has evolved and developed over the years with frequent bends, dips and crests. The road is considered to have a good surface, markings and signage to current standards. The road has a special speed limit of 60km/hr reflecting both the 'movement function' and 'place' context of the road.

1.1.3 Road Safety Concerns of Residents

Correspondence expressing road safety concerns have been received by Meath County Council from various parties (letters from individual residents, a signed petition from many residents and letters from elected representatives) which can be summarised as follows:

- No pedestrian facilities for a significant local community
- Excessive speeds including Heavy Goods Vehicles

1.1.4 Investigation of concerns by Meath County Council's Transportation Section & Need for the Scheme

For brevity, a summary of the investigations and the main findings are noted here.

A traffic survey was carried out in September 2019 and as part of that survey speed surveys were undertaken. The measured 85th percentile speed in both directions was 84km/hr, with the 85th percentile speed on the westbound carriageway was 87km/hr. The measured average speed in both directions was 71km/h. These measured speeds would be above expected, using the Road Safety Authority's Free Speed Survey 2018 as a reference, despite a special speed limit of 60km/hr with standard signage being in place. Consequently, the need for further engineering measures to reduce speeds is deemed necessary. Also recorded was a higher than average proportion of HGV's on rural roads (measured at 12%) which is notable.

Road Safety Inspections carried out by TII identified safety issues with the Boolies road, L68350 junction with the N52 - namely visibility and road width, and a third safety issue with a lamppost location near the M3-N3 roundabout.

Investigations by Meath County Council also identified issues with Rhine road, L68355 junction with the N52 - namely an undesirable skew angle and an overly wide turn-in.

The Collision History was also investigated noting two minor injury collisions recorded at this location 2005 to 2016, one additional minor injury collision and Four Material Damage Only collisions recorded 2014 to 2019. When referencing these statistics to TII's Collision Rate Analysis for 2016 to 2018, they have 'Above Average Rate' designation.

Balrath Residents Association have recorded an additional one serious injury and three (latest 18th July 2020) material damage only collisions at the Site in 2019/2020. As the severity of these collisions is not available from TII records (unverified), these collisions were not included in Meath County Council's analysis but they have been duly noted.

Surveys and Investigations noted the lack of any pedestrian or cycle facilities. Investigations also noted many of the direct accesses have varying sight distance with a significant number below current desirable or minimum standards. Both situations above would not be uncommon on rural roads within County Meath.

The above supports the case for the need for the scheme and its justification. The various positive responses from TII are additional factors in support of the proposed scheme and its justification.

1.1.5 Proposed Development

Based on the outcome of Meath County Council Transportation's investigation, it has been decided to progress a scheme with the following safety objectives:

- To address specific safety issues and actions identified in TII's road safety inspections of the junction of N52 and Boolies public road, L68350 junction
- To reduce excessive vehicle speeds to a speed appropriate to the road's local place context and it's national strategic movement function
- To provide pedestrian facilities and safe routes to enable local residents to access domestic and agricultural properties within the rural residential area of the 60km/h speed limit zone,
- To provide pedestrian facilities to enable local residents to access the L68350
- To address specific safety concerns of the junction of N52 and The Rhine (L68355) local road

The proposed development (called a Road Safety Improvement Scheme, RSIS) to address the identified safety issues:

- Known safety issues (visibility and narrow width) at N52 junction with local road L68350 identified by Road Safety Inspection, Tag ID 23688 and 23689. Also the N52-L68355 junction has an excessive skew angle approach and an overly wide junction bellmouth.
- Excessive speed – Despite posted 60km/hr speed limit, an average speed 71km/h and 85th percentile speed 84km/h has been recorded (2019 survey).
- Significant safety concerns as no facilities for pedestrians using the road, with 47 residences over a 970m length.

Briefly the proposed development will consist of a Road Safety Improvement Scheme to provide:

- Two number traffic calming gateways on the N52 at Barfordstown and Townspark;
- Safety improvement works to the junction of the N52 and The Rhine road, L68355;
- Safety improvement works to the junction of the N52 and Boolies road, L68350; and
- Provision of a footpath (approximately 950m long and 1.8m wide) and grass verges primarily along the northside of the N52 from it's junction with the Rhine road, L68355 to the existing footpath at M3-N3-N52 roundabout at Townspark, Kells Co. Meath.

The proposed scheme will include:

- Drainage works comprising road gullies, underground pipelines (both new and upsizing existing), attenuation and discharge to existing M3 Motorway drainage system, Calliaghstown Wetland (upsizing existing outfall) and to un-named field drain (both new and existing outfalls).
- Associated Land acquisition to provide required lands for footpath, grass verges and increased road widths; Verge level lowering to provide improved sight distance; Minor road realignment including excavation, reinstatement and resurfacing; Road Signage; Road Markings; Public Lighting; Accommodation & fencing/boundary works; Relocation of utility poles, cables and chambers; Landscaping works and ancillary infrastructure works.

The reader is referred to the scheme drawings appended to this report for a more detailed presentation of the precise proposals.

1.2 Planning and Development Regulations and this application

This application is being made in accordance with the procedure outlined in Part XI, Section 179 of the Planning & Development Act, 2000 (as amended). Part 8 of the Planning and Development Regulations, 2001 (as amended).

Under Part 8 of the regulations, the Local Authority is required to make details of the proposed road development available for public inspection and comment and to prepare a report in relation to the proposal for consideration by the elected members of the local authority.

This document has been prepared to accompany the application for statutory approval and it along with the drawings and reports appended contain further particular information on the design and on the potential environmental impacts of the proposed scheme to this document. It has been prepared in accordance with the information requirements of the Planning and Development Act, 2000 (as amended), and the Planning and Development Regulations, 2001 (as amended).

Following the publication in the press (Meath Chronicle dated 22nd October 2022, see Appendix G), of the Council's intention to submit this proposal to construct the above road improvement scheme, (in accordance with Part 8, Article 81 of the Planning and Development Regulations, (as amended), members of the Public and other interested Bodies may make a submission in writing. A copy of the Newspaper and Site Notices for the proposed development as required by the above Regulations is included in Appendices to this document.

This proposal for the N52 Calliaghstown Road Safety Improvement Scheme and is based on the preliminary design. The design considerations have taken into account as much as possible at this stage by Meath County Council Transportation Section, along with consultations with many other Sections and Officers of Meath County Council on pre-planning requirements. Minor modifications may still occur at Detailed Design Stage. The drawings and reports appended should be read in conjunction with this document.

This document has been prepared by Meath County Council Transportation Section and the following consultants have contributed to the design of the proposal, to the preparations of this report:

- WS Atkins Ireland Ltd. have carried assessments and prepared the Ecological Impact Assessment Report, Appropriate Assessment Screening Report and the Environmental Impact Assessment Report.
- Bruton Consulting Engineers have carried out Road Safety audits and prepared audit reports.

1.3 Planning Context

It is considered the proposed development meets, concurs with and is in harmony with the following policies, objectives and aims.

- **National Development Plan 2018—2027** Section 1.3 *"The fundamental objectives of the NPF are listed below…Ensuring that the fabric of rural areas is strengthened and the contribution of rural communities is harnessed as a major part of Ireland's strategic development."* (page 7)
- **National Planning Framework National Policy Objective 27** *"Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages."*
- **Eastern and Midland Regional Assembly Regional Spatial & Economic Strategy 2019- 2031** Regional Policy Objective (RPO) 8.2: "*The capacity and safety of the Region's strategic land transport networks will be managed and enhanced."*
- **MOV POL 25 of the adopted Meath County Development Plan 2021-2027:** *"To implement the actions of the Meath Road Safety Strategy and promote road and traffic safety measures in conjunction with Government Departments, the Road Safety Authority and other agencies."*
- **MOV POL 32 of the adopted Meath County Development Plan 2021-2027:** "*To ensure the protection of the existing roads infrastructure while improving the capacity and safety of the road network to meet future demands."*

2 Environmental, Archaeological and Other Constraints

2.1 Appropriate Assessment

A report for the purposes of Appropriate Assessment(AA) Screening was carried out for the project by WS Atkins (Ireland) Ltd. It was the view of the author that it was not necessary to undertake any further stage of the Appropriate Assessment process i.e. it was "screened out". The AA Screening report is appended to this report.

2.2 Environmental Impact Assessment

A report for the purposes of Environmental Impact Assessment(EIA) Screening was carried out for the project by WS Atkins (Ireland) Ltd. It was the view of the author that it was not necessary to undertake any further stage of the Environmental Impact Assessment process i.e. it was "screened out". The EIA Screening report is appended to this report.

2.3 Ecological Assessment

A report for the purposes of an ecological impact assessment was carried out for the project by WS Atkins (Ireland) Ltd. and report produced. The report finds that there will be no significant impacts on the local ecology including the Calliaghstown Wetland. The Ecological Impact Assessment report is appended to this report

2.4 Archaeological Constraints

No Archaeological Constraints are noted. Meath County Council Transportation Section's Archaeologist has carried out a desktop review and concluded that the proposed works would not require any additional monitoring or investigation. The Heritage Review report is appended to this report.

2.5 Heritage and Conservation Constraints

Some historic items are present along the N52 as detailed below (refer to appended 'Heritage Assessment summary' for further details):

- 'Louth banks' (earth core faced with stone courses) on the northside sides of the N52 to twelve properties,
- Approx. 300m of stone walls from estate on the southside,
- A handpump and stone wall enclosure at Ch720 southside
- Old stone ruins at Ch 800m southside is noted.
- Small memorial stone at Ch 815m northside

The 'Louth bank' wall on the northside and the memorial stone are the only elements affected by the works. DMURS and TII standards would advocate the retention of these where possible, and it is the intention to keep these where possible. Of the twelve(12) properties with a 'Louth bank' still remaining only four(4) will be affected by the works. In conjunction with Meath County Council's Conservation Officer as part of the application preparation for the Statutory Processes (Part 8) and detailed design phases, the precise detailed proposals will be determined on the re-aligned 'Louth bank' walls where they are affected by boundary re-alignment.

In consultation with the Conservation Officer of Meath County Council, it is proposed to carry out a full survey and report by a conservation architect/surveyor with a photographic record pre-demolition/re-alignment of any louth bank walls. Drawings have been prepared showing the existing and proposed works to affected boundaries, appended to this report.

3 Proposed Design

3.1 Design development Process

Meath County Council engaged in a thorough design process through the usual established phases and a brief summary of this process is included here for information. The design phases comprised An Initial Options and Feasibility Phase scoped out the, Options development, Option Selection and Detailed Design.

An important design note is the requirement for TII acceptance/approval for all works on a national road, and the design process included liaison and engagement to secure their consent at the various designated junctures. The Design Report for the proposed design was been submitted to TII (in accordance with their standard DN-GEO-03030) and has received their consent allowing it to progress to Statutory Processes stage.

Equally important to note, there was much engagement with local residents and landowners to determine a design which fulfilled the overall aims and objectives and which had the necessary support. The design underwent several iterations during its development to the current proposal. The valuable assistance of the Balrath Residents Association is duly noted and much appreciated in this regard.

3.2 General

Broadly speaking there are three distinct elements to the proposed scheme

(1) Junction improvement works at N52-L68350 Boolies road and the N52-L68355 The Rhine road junctions

(2) Provision of two Type A gateways to inform of speed limit and reduce the speed of vehicular road users and

(3) provision of a uniform cross section with a narrowed carriageway, footpath and verges for pedestrians between the gateways to present a changed road streetscape (from the usual rural national road to a rural residential characteristic) thus influencing and effecting a change in driver behaviour, specifically a reduced vehicle speed by self-regulation. The proposed footpath (approximately 950m long and 1.8m wide) and grass verges primarily will extend from the junction of the N52 with the Rhine road, L68355 primarily along the northside of the N52 and join the existing footpath at M3-N3-N52 roundabout at Townspark, Kells Co. Meath.

Additionally, there are necessary works required for the above, including:

- Drainage works comprising road gullies, underground pipelines (both new and upsizing existing), attenuation and discharge to existing M3 Motorway drainage system, Calliaghstown Wetland (upsizing existing outfall) and to un-named field drain (both new and existing outfalls).
- Associated Land acquisition to provide required lands for footpath, grass verges and increased road widths at the junction of the N52 and the Boolies Road, L68350;
- Verge level lowering to provide improved sight distance;
- Minor road realignment including excavation, reinstatement and resurfacing;
- Road Signage;
- Road Markings;
- Public Lighting at gateway locations including lamp-posts, ducting and wiring, chambers and pillars, and connection to power supplies (details to be confirmed pending statutory approval for the project);
- Accommodation & fencing/boundary works including new fences, walls, piers, gates ;
- Relocation of utility poles, cables and chambers;
- Landscaping works including new hedgerow planting and planting to verges; and
- Ancillary infrastructure works.

3.2.1 Design Standards

As the N52 road is a national road, TII's suite of standards would be the required standard as is the case for all national roads. However as the proposed development is within a prescribed 60km/hr speed limit zone, compliance with the Design Manual For Urban Roads and Street (DMURS) is primary design standard requirement as specified by Ministerial Order.

Notwithstanding DMURS many other design standards and guidance apply to the proposed project and some particularly relevant at a higher level include (1) TII's DN-GEO-03030 *Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes* (April 2021), (2) DMURS Advice note 1 *Transitions Zones and Gateways* and (3) TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads.*

The section between the gateways has been designed to 'Transition Zone' standards though there is no formal 'centre' as such, which is a scenario specifically identified in Section 1.1 of DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads* (page2).

The *Guidelines for Setting and Managing Speed Limits in Ireland* (published by DTTAS) under Section 7.2.2.4 *Roads approaching built up or urban areas* recommend engineering measures are provided where reduced or special speed limits are in place.

The Designer has endeavoured to provide a balanced design solution promoting speed management and expectations suitable for both the national strategic movement purpose of the N52 road and the place context of the location.

3.2.2 Gateways and approaches

It is proposed to provide a Type-A gateway at either end of the site (2 no. in total) compliant with DMURS Advice Note 1 – *Transition Zones and Gateways,* TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads* and to TII's standard detail CC-SCD-05101 *Gateway: Type A Design*.

Traffic calming gateways essentially provide a vertical elements adjacent to road and effect a change in driver behaviour lowering their speed by providing an actual and/or a perceived narrowed road width. There are many types of gateway and options. In consultation with TII, a Type A gateway (no central island) was selected as the best option for several reasons, including:

(1) the existing road way will not be widened and thus no additional land is required
(2) the existing boundaries (trees and hedgerows) provide a 'good' vertical elements already
(3) maintaining the narrow cross section width (boundary to boundary) with a new gateway should reduce speeding.
(4) widening the road would require land acquisition which might meet with landowner opposition and would have increased costs
(5) widening the road would require the removal of established hedgerows (see below)

The western gateway will be located at the current speed limit change point from 80-60km/h (Ch1350m) in accordance with Section 4.3 of TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads*. It is not possible to site the eastern gateway at the 60km/hr speed limit commencement location (the N52-N3-M3 roundabout), so it is proposed to locate it at Ch 230m which is the nearest feasible and safest point and crucially before westbound traffic have picked up excessive speed.

A number of substantial trees exist on the approaches to both gateways and it is the intention to preserve these if at all possible. Preservation of existing trees is desirable and required by both DMURS Advice Note 1 – *Transition Zones and Gateways* Section 3 and TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads* Section 3.12.1 *Existing Landscape.* Preservation of these existing trees and hedgerows are considered to provide vertical elements that effect a driver behavior change and speed reduction.

3.2.3 Between the Gateways

As per DMURS Section 4.4 it is proposed to provide a relatively narrow constant carriageway width appropriate to the 60km/hr speed limit in place to calm traffic and ensure the speed reduction is maintained. In compliance with DMURS

Figure 4.55 (revised), it is proposed to provide a lane width of 3.25m given the 'Arterial' road designation and high proportion of larger vehicles (road survey in 2019 recorded 12% HGVs). The proposed 6.5m width complies directly with Section 5.3.1 of TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads.*

It is proposed the southern or westbound carriageway edge treatment shall remain as is – namely unkerbed with yellow line markings, grassed verge of various widths and various vehicular entrances. The southern verge surveyed width (yellow line to edge) averages 0.354m, so it is considered that a relative narrow hard strip or 'verge' is presented to the westbound driver as required by DMURS encouraging the appropriate speed self regulation and no works are proposed. It is noted that the verge widths are generally quite narrow which do not encourage speeding.

On the northern or eastbound carriageway, it is proposed to provide a kerbed carriageway/road edge treatment with a 0.5m planted buffer where land is available and a 1.8m footpath. The 1.8m path width complies with DMURS Section 4.3.1 footpath width. Where land availability issues arise it is proposed to have a footpath only in accordance with TII's CC-CSD-05106.

The overall approach with the above proposed cross section is to confirm the character of the road and have the multi-purpose of maintaining the speed reduction, providing pedestrian facilities and ensuring the movement capacity of the N52 is maintained. The cross-section design is in keeping with DMURS, DMURS Advice Note 1 – *Transition Zones and Gateways* and TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads.*

3.2.4 Facilities for Pedestrians

A 1.8m footway width is proposed as per DMURS Section 4.3.1 and Figure 4.34 suitable for areas of low pedestrian activity. A footpath is provided on one side only in compliance with Section 3.2 *of* DMURS Advice Note 1 – *Transition Zones and Gateways* and Figure 3 for a Transition Zone streetscape.

Uncontrolled pedestrian crossings are proposed at the Eastern Type-A gateway at Ch 230m across the N52 and across the L68350 Boolies Road at its T-junction with the N52. It is considered that no other crossing points are required by DMURS Section 3.2 based on the housing density, expected pedestrian usage and the Transition Zone nature of the site.

As well as providing a valuable safety measure, it is hoped the provision of a local footpath will achieve some of the overall desirable aim of creating a more sustainable neighbourhood as expressed in DMURS Section 3.3.3 *Retrofitting* encouraging increases in walking and a reduction in private vehicle use (particularly amongst neighbour to neighbour journeys) as well as increasing the attractiveness of the locality. Representations made to Meath County Council from residents have indicated the current lack of facilities is artificially suppressing pedestrian use and numbers amongst a vibrant rural community.

DMURS Section 4.3.5 Cycle Facilities and Figure 4.52 indicates a segregated cycle track is required. However constraints exist such as available space, expected use and economics amongst others. TII's DN-GEO-03084 *The Treatment of Transition Zones to Town and Villages on National Roads* Section 5.3.3 acknowledges this reality stating "*In many cases the Designer will be amending an existing road layout and constraints may not allow for an optimum solution that fully caters for the all road users".* Consequently due to constraints such as land availability, it is not proposed to provide any specific cycle facilities. It is considered the expected reduction in speeds will provide an improvement to cyclist safety.

It is further noted that there is precedent set for the above proposed treatment in the same environment (similar settlement/development and similar distance from Kells centre) on the same road (N52), as is evident on the N52 immediately north of Kells approx. 4km away from the site.

3.2.5 Proposed Junction Safety Works

At the N52-L68350 junction, substantial improvement works (lower adjacent western verge, widen the junction turn in and the road width to 6.5m for a safe distance, improve visibility as well as relocation of an existing field entrance away from the junction) are proposed to remedy the issues identified under Tag ID 23688 and 23689. The proposed sight distance from this junction will be 65m as per DMURS requirements.

At the N52-L68355 junction, kerbing works are proposed to remove the skew angle and introduce appropriate junction turn-in/kerb radii.

Both junctions are designed to DMURS standards Section 4.3.3 with corner radii of 6m given the arterial designation of the road and the 60km/hr.

Some 29 accesses are located on the south side or westbound side and it is proposed no works will carried out to these accesses.

On the northern or eastbound side, some accesses between the Eastern gateway at Ch230m and Ch 1,050m will be reconstructed as part of the proposed revision to the cross section. Some of the existing access do not currently meet private access standards DMURS and/or TII's DN-GEO-03060 *Geometric Design of Junction* for the dwell area length and/or gradient, given the level differences and set back. The proposed works will improve this situation for most sub-standard accesses if not completely address it, no accesses will be adversely affected.

It is hoped that the expected reduction in speed will improve the general safety of junctions and accesses.

3.2.6 Drainage

An important element to this proposal is the proper disposal of rainwater or surfacewater, as the effects of providing a path, kerbing and other works will not allow water to dissipate in its current arrangement.

The existing drainage to the southside of the road will remain as is – primarily to verge. On the northside of the road new drainage (comprising of gullies and a carrier drain) is proposed to compliment the proposed kerb. The carrier drain will have three new drainage runs and outfall points:

(1) Ch 130-400m : to existing drainage systems on the M3 motorway

(2) Ch 400-800m : via 400m approx. of upsized carrier drains then into garden and field and discharging to the existing Calliaghstown wetland north of the site

(3) Ch 800-1040m : via 140m of new carrier drains in field/field access lane to an existing field drain north of the site

(4) Ch 1040- 1,350m, drainage to remain as is with both roadside verge and an existing drainage system. Drainage to the western gateway will be provided as existing, i.e. to verge drainage.

The above proposals have been confirmed and a detailed drainage designs for (1) to (3) above as per TII's DN-DNG-03022 *Drainage Systems for National Roads (including Amendment No. 1 dated June 2015)* are progressing.

3.2.7 Accommodation Works

As there is land acquisition there will be appropriate accommodation works to replace existing boundary treatments on a "*like-for-like*" basis. Of the 32 folios/land holdings along the northside, re-aligned/boundaries works will be required to three(3) agricultural properties and six(6) residential properties. At the time of writing, Meath County Council has reached verbal agreement with all landowners consenting to transfer of the required lands and agreement to allow pipelines.

3.2.8 Lighting

There is no existing lighting on this section of the N52. It is not proposed to provide lighting other than at the gateways as per DMURS's Advice note 1 *Transitions Zones and Gateways* and other technical standards.

It is not proposed to provide lighting other than at the gateways. Whilst DMURS generally would require lighting at all urban locations, DMURS's Advice note 1 *Transitions Zones and Gateways (*see Figure 4 below) which is directly applicable and relevant to the proposed works specifically notes "*Street Lighting: occasional or none*" for Transition Zones.

It is proposed to install public lighting ducting infrastructure for lighting in the verge should policy/decision change.

Appendix A – Design Drawings

Please Refer to Volume 2

Part 8 Planning Drawings

Appendix B –Road Safety Audit

Stage 1 & 2 Road Safety Audit

Auditor's Letter 17th January 2022

Title: **STAGE 1&2 ROAD SAFETY AUDIT**

For;

N52 Calliaghstown – Proposed Road Safety Improvement Works & Footpath Scheme.

Client: **Meath County Council.**

Date: **November 2020**

Report reference: **0901R01**

VERSION: **FINAL**

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1.0 Introduction

This report was prepared in response to a request from Mr. Nicholas Whyatt, Meath County Council for a Combined Stage 1&2 Road Safety Audit of the N52 Calliaghstown – Proposed Road Safety Improvement Works & Footpath Scheme.

The Road Safety Audit Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA.

TII approval number: NB 168446

Team Member: **Owen O'Reilly** B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil.Eng CEng MIEI

TII approval number: OO 1291756

The Road Safety Audit comprised an examination of the information provided and a site visit by the Audit Team, together on the 21st October 2020.

The weather at the time of the site visit was dry and the road surface was dry.

This Stage 1&2 Road Safety Audit has been carried out in generally accordance with the requirements of TII Publication Number GE-STY-01024, dated December 2017. There is a slight deviation from the standard in that there are two options to be considered with regard to the section between Calliaghstown and the N3 Junction. Usually options are considered in Stage F road safety audits however this is a relatively small scheme and Stage F audit is not deemed appropriate.

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety. It has not been examined or verified for compliance with any other standards or criteria.

The problems identified in this report are considered to require action in order to improve the safety of the scheme for road users.

If any of the recommendations within this safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observation are intended to be for information only. Written responses to Observations are not required.

The information supplied is listed in **Appendix A.**

A problem location map is contained in **Appendix B.**

The feedback form to be completed by the Design Team Leader is contained in **Appendix C.**

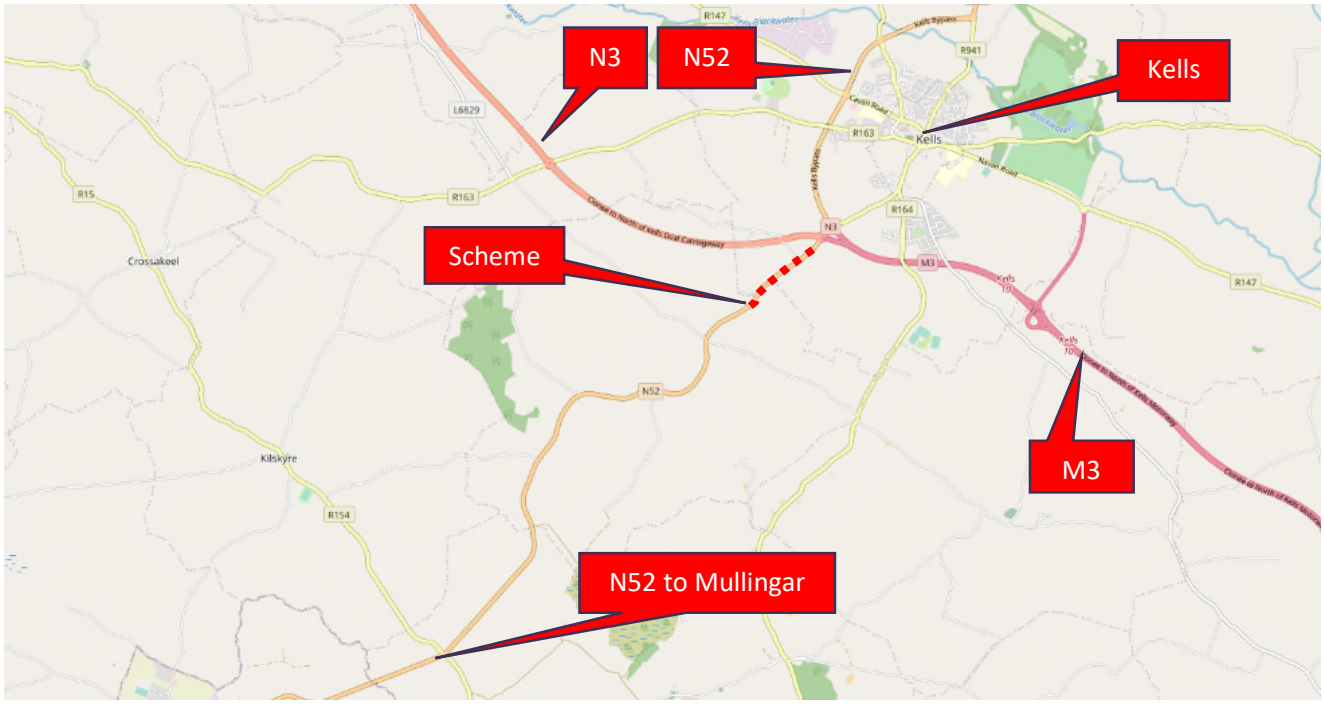
A copy of the TII approval of the Audit Team is contained in **Appendix D.**

2.0 Background

Meath County Council proposes to upgrade a 1.3km section of the N52 national secondary single carriageway road at Calliaghstown. This section of the N52 is approximately 1km to the West of Kells and is to the West of the M/N3/N52 Kells Junction. There are approximately 40 domestic residences along the 1.3km section, most with individual direct accesses. The speed limit is 60km/hr.

It is proposed to upgrade the facilities for vulnerable road users. Junction improvements will occur at the L68350 to improve visibility.

A site location map is provided below.



Scheme Location Plan (Image courtesy of Openstreetmap.org)

The Road Safety Authority's website *www.rsa.ie* shows the recorded injury collisions between 2005 and 2016. The draft Feasibility and Options Report provided to the Audit Team contains a detailed collision investigation history and analysis.

3.0 Main Report

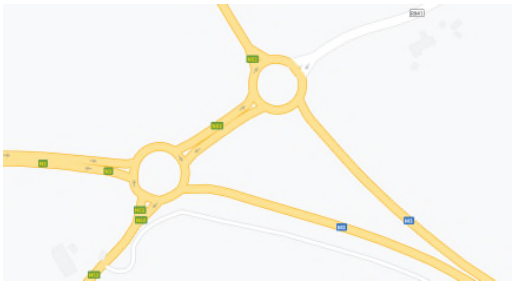
3.1 Problem

LOCATION

Section between the M/N3 & N52 Junction and the north eastern gateway.

PROBLEM

There is an option to provide a footpath from the scheme extent at the north eastern gateway to the M/N3 Junction. The junction consists of a dumbbell type junction without a mainline below due to the termination of the M3 motorway.



There are existing uncontrolled crossing points at the junction for pedestrians. There is a risk that when the footpath is constructed along the scheme that residents wishing to travel to Kells will enter the N52 carriageway for the section between chainage 400 and the M/N3 junction. This could lead to conflict with general traffic.

The N/M3 junction is however a busy junction requiring 4 crossing manoeuvres (2 across the N3 dual carriageway and 2 across the N52 Kells bypass dual carriageway). As the crossings have refuge areas pedestrians only have to focus on traffic coming from one direction for each of the 4 manoeuvres.

The traffic speeds were observed to be relatively high at the junction during the site visit at off peak times and free flowing conditions.

At the crossing of the N3 northbound carriageway visibility for crossing pedestrians is limited,

(i) To circulating traffic on the roundabout due to the raised central island
(ii) To N52 traffic from the scheme direction due to vegetation to the rear of the security fencing at the drainage pond.

RECOMMENDATION

It is recommended that the pedestrian facilities be made continuous from the scheme to the M/N3 junction. This may require the purchase of additional land.

At the M/N2 roundabout it is recommended that the central island in the roundabout be lowered to provide greater inter-visibility between drivers and crossing pedestrians.

The vegetation to the rear of the security fencing at the drainage pond should be removed to improve inter-visibility between drivers and crossing pedestrians.

Warning sign for 'Pedestrians' TSM Ref W140 should be provided at all approached to the junction.

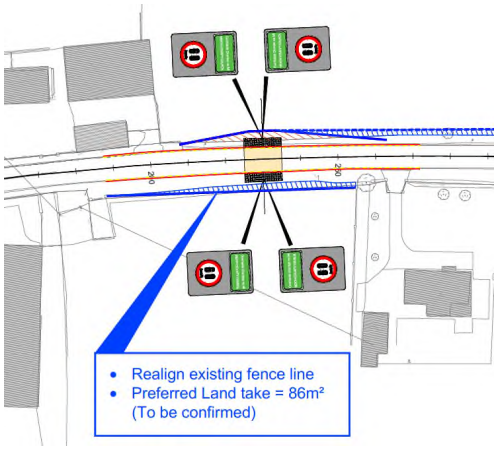
3.2 Problem

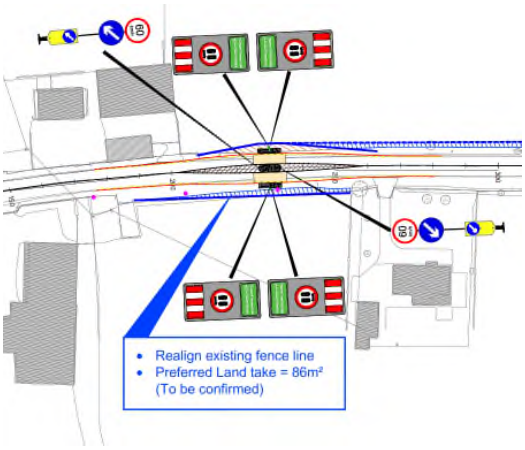
LOCATION

Drawing DG1107A Rev D01& DG1107B Rev D01

PROBLEM

Two options have been put forward for the eastern gateway treatment. The first does not have a central island and the second does. Without a physical narrowing of the carriageway there is a risk that drivers will not slow to the required 60km/hr. Higher speeds lead to higher injury severity if errant vehicles collide with other road users or roadside hazards.





RECOMMENDATION

It is recommended that the gateway design as shown on Drawing DG1107B Rev D01 with the central island is provided.

If the recommendation of extending the footway as described in 3.1 above is taken forward, then the gateway may be placed closer to the roundabout so that drivers do not get above 60km/hr as they head westwards on the N52.

It is important that space for cyclists is provided behind the gateway signs in the verge so that they cannot be 'squeezed' at the central island.

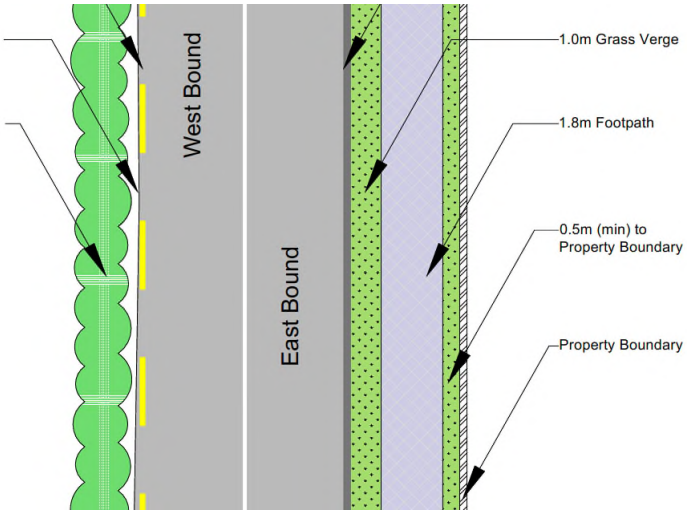
3.3 Problem

LOCATION

Throughout the scheme – Public lighting and Road markings.

PROBLEM

There are no proposals to provide public lighting along the scheme. There is a risk that drivers may not be fully aware of the carriageway edge on the few footpath side in dark or in adverse weather conditions such as fog.



RECOMMENDATION

It is recommended that a edge of carriageway road marking including road studs be placed along the footpath edge of the carriageway.

3.4 Problem

LOCATION

Overall scheme, traffic calming.

PROBLEM

The distance between the proposed gateways is approximately 1km. There is potential for drivers to increase their speed between the gateways to well in excess of 60km/hr. This could lead to high injury severity if an errant vehicle strikes a vulnerable road user or a road side hazard such as a boundary wall.

RECOMMENDATION

It is recommended that additional intermittent traffic calming features be provided to maintain traffic speeds at 60km/hr throughout the scheme. These could include solid buildouts on the western side.

4.0 Observations

4.1 Observation

It is assumed that reinforced concrete accesses will be provided at each house/farm access with a 25mm upstand as per TII standard details.

4.2 Observation

No public lighting proposals have been given to the Audit Team. It is assumed that public lighting will be provided at the gateways to highlight their presence to approaching drivers.

4.3 Observation

Long section, drainage and signage (other than gateway signage) drawings have not been provided to the Audit Team.

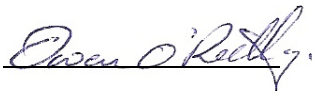
5.0 Audit Statement

We certify that we have examined the information provided and the site on the 21st October 2020. The examination has been carried out with the sole purpose of identifying any features of the design which could be removed or modified in order to improve the safety of the scheme.

The problems identified have been noted in this report together with associated safety improvement suggestions which we would recommend should be studied for implementation. The audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton **Signed:** 

(Audit Team Leader) **Dated: 20/4/2021**

Owen O'Reilly **Signed:** 

(Audit Team Member) **Dated: 20/4/2021**

Appendix A

List of Material Supplied for this Stage 1&2 Road Safety Audit;

- Drawing DG1107A Rev D01
- Drawing DG1107B Rev D01
- Drawing DG1109 Rev D01
- Drawing DG1110 Rev D01
- Drawing DG1111 Rev D01
- Drawing DG1112 Rev D01
- Drawing DG1113 Rev D01
- Drawing DG1201 Rev D01
- Drawing DG9112 Rev D01

Material Supplied as Background Information

- N52 Calliaghstown TII Site ID N52MH_32.6, Road Safety Inspection Feasibility & Options Report, Draft 14/8/2020

Appendix B – Problem Location Map.

Appendix C

Feedback Form

BRUTON CONSULTING ENGINEERS

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: the N52 Calliaghstown – Proposed Road Safety Improvement Works & Footpath Scheme.

Stage: 1&2 Road Safety Audit
Date Audit (Site visit) Completed: 21/10/2020

Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	Yes	The scheme will be progressed with a pedestrian link to the M3/N52/N3 junction – this is likely to involve introducing an uncontrolled crossing at the eastern gateway to connect to a footpath on the south side of the N52 which would tie in to the existing section of footpath constructed as part of the M3 scheme (rather than acquire land). This will mean that pedestrians heading to Kells will have to cross at the gateway location and cross the N52 again at the roundabout as per the existing situation. Initial contact with PPP company has been made and there was no objection in principle to lowering part of the central island of the roundabout. It is noted that the chevron signage on the central island of the roundabout for northbound drivers could also obstruct the drivers view of the crossing point on the northside of the roundabout.	
3.2	Yes	Yes		
3.3	Yes	Yes		
3.4	Yes	No	The introduction of the footpath itself at this location will act as traffic calming measure and should alter the driver's perception that the road is narrower and thus there will be a reduction in speed. This is in line with the guidance given in	Yes

			the Guidance for Setting and Maintaining Speed Limits in Ireland. It is proposed that post construction speed limits would be monitored to assess changes in driver's behavior to inform any decision on whether addition traffic calming measures were required.	

Signed D. Mulloon
Design Team Leader

Date 19th April 2021

Signed Norman Bruton
Audit Team Leader

Date: 19/4/2021

Signed
Employer

Date: 19/4/2021

Appendix D – TII Auditor Approval

Shane Nugent
County Hall
Navan
Co. Meath

Date: 13/10/2020

Our Ref: 9878119/11879/Stage 1 & 2

re: N52 N52 Calliaghstown - Proposed Road Safety Improvement Works & Footpath Scheme

APPROVAL OF ROAD SAFETY AUDIT TEAM, Stage 1 & 2

Dear Shane Nugent,

The following members of the proposed road safety audit team are approved to carry out the Stage 1 & 2 road safety audit of N52 N52 Calliaghstown - Proposed Road Safety Improvement Works & Footpath Scheme.

1. Norman Bruton - Bruton Consulting Engineers Ltd - Leader
2. Owen O'Reilly - PEN Priory Engineering Network - Member

A copy of all audit reports, design team response and exception reports must be uploaded through RSAAS. Successful upload of these reports and completion of the audit approval process is necessary for any further audit approval on this scheme.

Yours sincerely,

Lucy Curtis

Regional Road Safety Engineer
roadsafetyaudits@tii.ie

BRUTON CONSULTING ENGINEERS

Contact: Norman Bruton
Tel: 086 8067075

Paul Mc Kown
Transportation
Meath County Council
Buvinda House
Dublin Road
Navan.

Our Ref: 901-L001

Date: 17th Jan 2022

RE: N52 Calliaghstown Road Safety Improvements, Stage 1&2 Road Safety Audit.

Dear Paul,

We carried out the Combined Stage 1&2 Road Safety Audit for the N52 Calliaghstown Scheme in October and November 2020. The report was finalised after sign off of the feedback form in April 2021.

Since that time, some design changes have taken place as is normal during scheme development. There has also been some input from the Transport Infrastructure Ireland (TII) Regional Road Safety Engineer, as the N52 is a national road.

The typical cross section will include a 0m- 0.5m grass verge in front of a 1.8m footpath throughout the scheme.

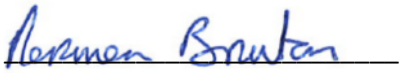
The main areas where the design has progressed are as follows;

- The introduction of Type A gateways in lieu of Type B gateways as there would need to be road widening to accommodate Type B gateways and this may give the impression of a more open space (fence to fence) and lead to higher speeds.
- Road narrows signs will not be provided in advance of the gateways as the road will not actually narrow at the Type A gateways. The signs could therefore give mis information to a driver and detract from the message being given by other signs.
- The L68355 junction has been realigned to meet the N52 closer to perpendicular.
- Additional landtake at Ch 125-180 is to be provided to improve visibility.

All of the changes above have been provided in the interest of road safety and therefore are welcomed by the Audit Team.

Having reviewed the latest revision of drawings issued earlier today (17th January 2022) the Audit Team hereby confirm that we have no additional comments to add to the Audit Report previously issued.

Yours sincerely,



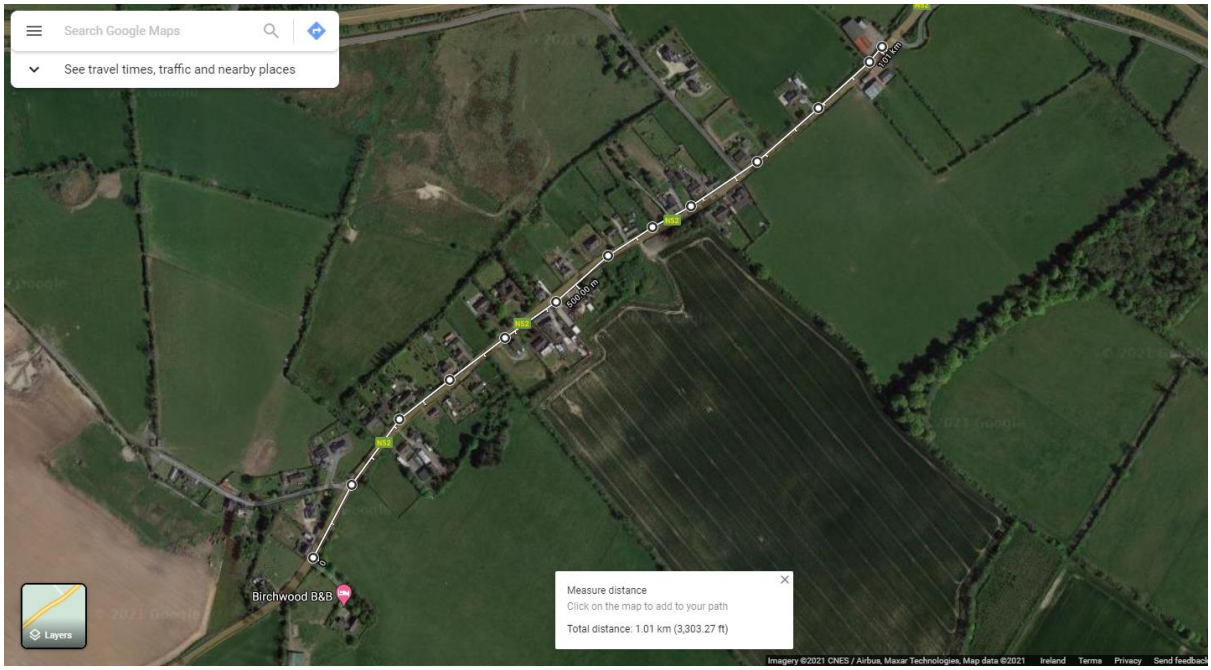
Norman Bruton BE CEng MIEI

Road Safety Audit Team Leader (TII Approval Number: NB 168446)

Chartered Engineer

Managing Director
Bruton Consulting Engineers

Appendix C – Heritage Assessment Report



N52 Calliaghstown Footpath

Calliaghstown and Barfordstown

Centre ITM: 672494, 774312

Approx. 1km

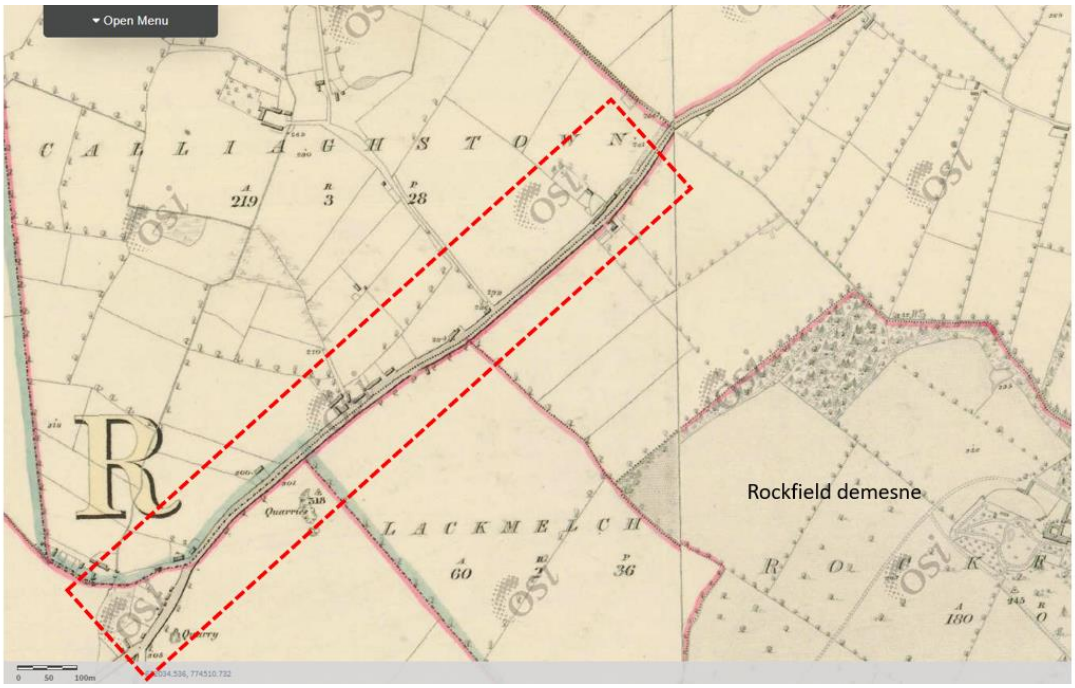
Heritage assessment summary

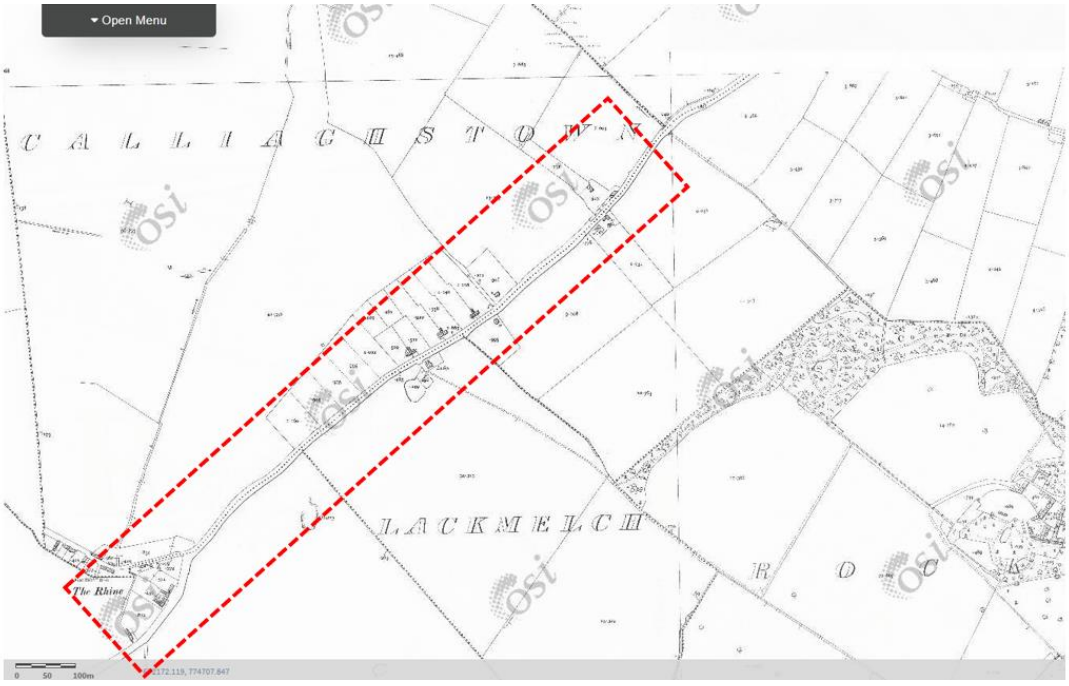
Niall Roycroft

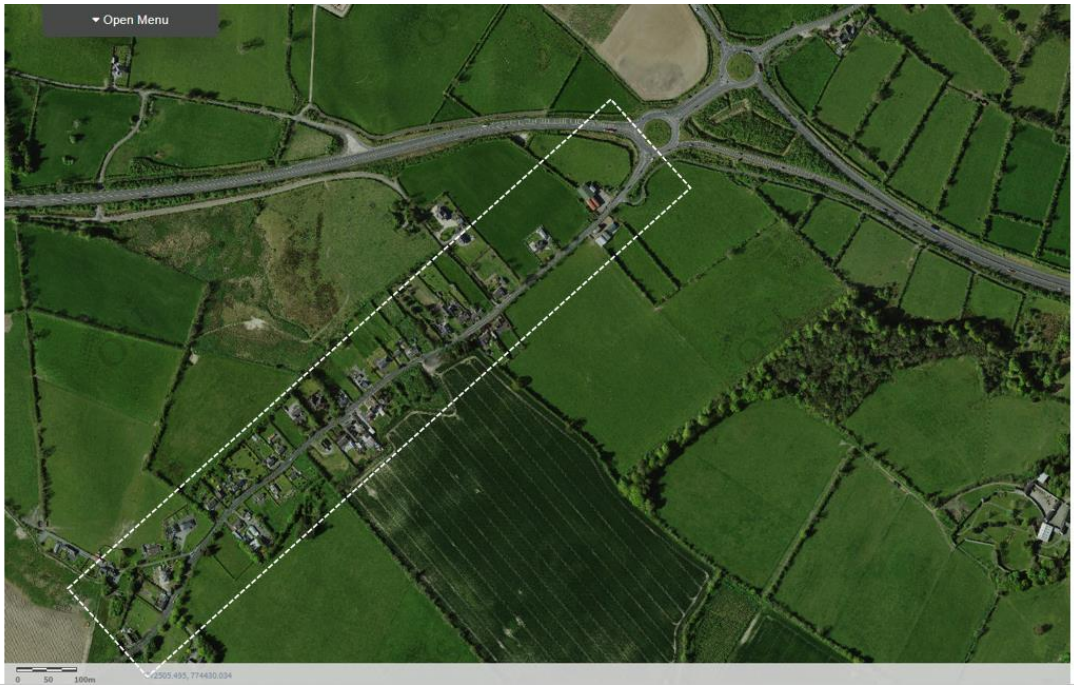
July 2021

Meath County Council is assessing a footpath project along the N52 in Calliaghstown and Barfordstown near Kells. The proposed footpath is approx. 1km long and to run along the northern side of the N52 past a series of late 19th century and modern 20th century houses. The southern side of the N52 here is partly within the Rockfield House demesne (in both Rockfield and Lackmelch townlands) and considerable remnants of a demesne wall (in varying condition and height) survive in Lackmelch townland. The association of Lackmelch and Rockfield is presumed from a now-demolished Lodge and a now-erased track but has not been confirmed. Rockfield House is a Protected Structure MH017-101.

The N52 along this stretch was developed with estate and ribbon development housing on the 1837 OS. This development was altered considerably by 1913 and has again altered significantly with many houses being built in the 20th century.







Many of the modern houses have re-built their roadside boundaries to be further set-back from eh N52 than the original boundary. However, numerous houses still maintain a stone-faced 'Louth Bank' as their N52 roadside boundary. A Louth bank typically comprises horizontal courses of stones laid on edge to produce a herringbone-style bond to an earth cored bank. The stone facing is often planted with hawthorn in order to force the stones together and tighten the coursing.

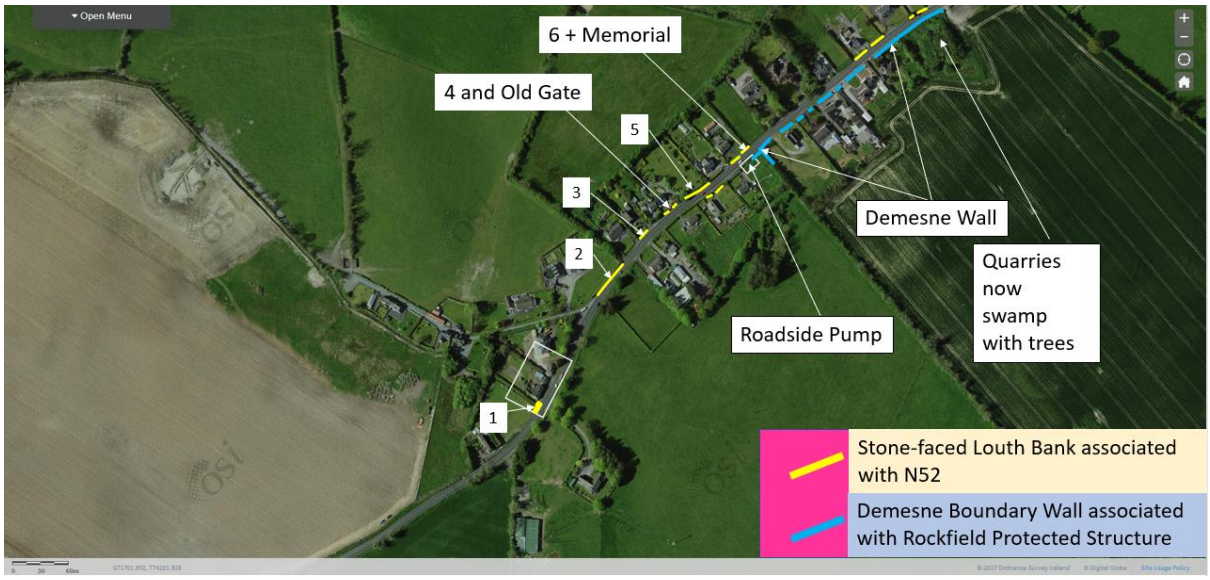
Louth banks are a common field boundary and works along the N52 will consistently find stretches of this form of roadside revetting. Often the revetting would be rising from a roadside ditch, separated from the carriageway by a grassed verge. Typically such N52 revetting would date from the 18th century or so, dating from the then upgrading of the N52 at that time.

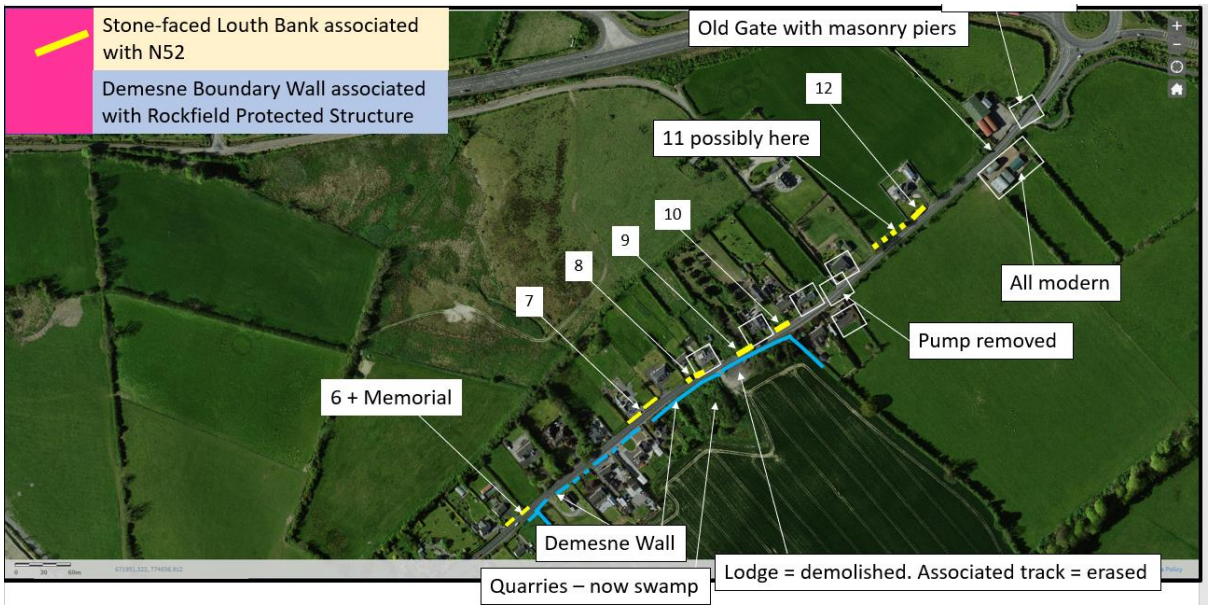
The images below show the lengths of Louth Bank revetting on the northern side of the N52 and also the Lackmelch Demesne wall on the southern side.

In summary there are 12 sections / properties with surviving Louth Bank. The conditions of the Louth Bank at these properties varies considerably – which is understandable considering the stonework is usually unmortared and the bank middle is earth. Numerous sections are covered in a modern hedge and is only visible when the verge grass is cut. Some sections have had the upper part of the bank removed and only a sill-wall type remnant survives (and sometimes this looks like it has been rebuilt recently).

The wall is an interesting survival and might ideally be avoided or replaced like-for-like as a low-sill wall associated with a hedge. Along this section of the N52 W of the N3 junction there seems little of this build remaining. However, the R941 (previously N52) from the N3 junction E into Kells has several kilometers of this Louth bank remaining (although often hidden in a hedge) along the N side of this road.

OVERVIEW


Open Menu
6 + Memorial
4 and Old Gate
5
3
2
1
Demesne Wall
Quarries now swamp with trees
Roadside Pump
Stone-faced Louth Bank associated with N52
Demesne Boundary Wall associated with Rockfield Protected Structure


Stone-faced Louth Bank associated with N52
Demesne Boundary Wall associated with Rockfield Protected Structure
Old Gate with masonry piers
12
11 possibly here
10
9
8
7
All modern
Pump removed
6 + Memorial
Demesne Wall
Quarries – now swamp
Lodge = demolished. Associated track = erased

DETAIL VIEWS

Area 1

Area 2

Area 3 – buried in hedge – may be denuded

Areas 4 (with old gate), 5

Detail of Area 5 showing horizontal courses on end

Area 6 with memorial stone on right

Roadside Pump and demesne wall (W end) on S side of N52

Demesne wall on S side of N52 in varying condition

Area 7

Demesne wall on S side of N52 in area of entrance and now-demolished lodge

Area 8

Area 9

Area 10

Below: Area of location for old water pump. Now road realigned for sight lines and pump removed and relocated as in Roadside Pump image above

Area 11 verge and roadside ditch apparently surviving. Bank may have stone revetting

Area 12. This modern development seems to have rebuilt this wall

Old Building on N side of N52 at E end of scheme

Appendix D – Appropriate Assessment(AA) Screening Report

ATKINS

Member of the SNC-Lavalin Group

N52 Road Safety Improvement Scheme, Calliaghstown, Kells, County Meath

Appropriate Assessment Screening Report

Meath County Council

February 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 N52 Road Safety Improvement Scheme at Calliaghstown, Kells, County Meath.

Atkins 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

Revision	Purpose description	Origin-ated	Checked	Reviewed	Author-ised	Date
Rev 0	Draft for comment	CW	CW	NS	DL	16/07/2021
Rev 1	For submission	CW	CW	CW	MF	15/02/2022

Client signoff

Client	Meath County Council
Project	N52 Road Safety Improvement Scheme, Calliaghstown, Kells, County Meath
Job number	5203694
Client signature / date	

Contents

Tables

Figures

1. Introduction

Atkins Ireland have been commissioned by Meath County Council to prepare a Screening for Appropriate Assessment (AA) for the construction and operation of a proposed Road Safety Improvement Scheme on the N52 National Secondary Road at the townlands of Calliaghstown, Townspark, Lackmelch and Barfordstown, south west of Kells, Co. Meath.

The proposed road safety improvement works comprise two 'gateways' located at Barfordstown and Calliaghstown close to the existing N52/M3 roundabout to reduce vehicular traffic speeds to posted 60km/hr speed limits; improvement works to the junctions of the N52 with Boolies Road (L68350) and The Rhine road (L68355); and approximately 950m of footpath primarily along the northside of the N52 at Calliaghstown.

1.1. Proposed Scope of Works

The proposed works will comprise of:

- Installation of traffic calming measures (gateways) on the N52 at Calliaghstown and Barfordstown;
- Junction Upgrade works to the junction of the N52 with Bolies Road local road (L68350) and to the junction of the N52 with the Rhine local road (L68355)
- Provision of a footpath and verges (approx. length 912m) from the existing path at M3/N3/N52 roundabout to the junction of the N52 with the Rhine local road (L68355);
- Drainage works comprising underground pipelines (both new and upsizing existing), attenuation and discharge to existing M3 Motorway drainage system, Calliaghstown Wetland (upsizing existing outfall) and to un-named field drain (both new and existing outfalls).
- And associated minor road realignment, excavation and reinstatement, kerbing, accommodation works, realignment of boundary walls, fences and gates, landscaping works, public lighting, ducting, road marking, road signage, road surfacing, utility poles and overhead wire relocation/alteration, drainage/attenuation works and ancillary infrastructure works.

The total length of project site is ca. 1,700m and works outside of the above include for some minor fence alterations and new road signage prior to and after the footpath along the N52 roadway for speed restriction purposes.

Construction activities will include the removal of some existing boundary walls, fence lines and / or hedgerows in front of residential premises to facilitate the installation of the footpath. The installation of the footpath will also necessitate the removal and realignment of some existing signage and poles in certain locations (e.g. Eircom Poles).

The construction makeup of the path will involve the installation of ca. 250mm of pavement materials as follows; 150mm of CL804 sub-base materials, 60mm of binder material and 40mm of surface dressing. The works will also involve the installation of ducting below the path along the alignment of the pathway with total depth of excavations for ducting to be ca. 400-500mm below pathway level. The installation of ducting is part of the proposed design so as to accommodate future cables should they be required (i.e. future proofing for internet cables, lighting etc).

Works will also involve the installation of a roadside kerb along the eastbound laneway and also the formation of a grass verge separating the roadway kerb from the pedestrian pathway where space is available. The total depth of excavations for kerb and verge works is ca. 250mm below road surface levels. Property walls, fences and / or hedgerow will be reinstated in their new (set back) location with ca. 0.5m of grass verge to be installed to provide separation of the footpath from the residential boundaries.

Storm water / surface water drainage for the proposed footpath will predominantly be to local field drains and / or will be to the existing drainage infrastructure in local roadway (N52, L68355 M3 roadways). Drainage of storm water / surface water run-off for the proposed scheme is summarised as follows: -

- East side of scheme (ca. 400m in length) will drain to existing N52 road drainage network which connects to M3 drainage network. The M3 drainage infrastructure outfalls to the Toberultan Stream.
- Mid-section of scheme (ca. 700m in length) will drain to agricultural land / field drains / wetlands located directly north of proposed footpath / scheme.
- West side of scheme (ca. 600m in length) which will remain as existing drain to adjacent verge and to existing road drainage network on local roadway (L68355) which outfalls to local field drains north of proposed footpath / scheme.

Plan and cross section design of the proposed footpath along the N52 roadway is illustrated in Figure 1-1 below.

The location and alignment of the proposed pedestrian path is illustrated in Figure 1- 2 below and is further detailed in design drawings in Appendix A.

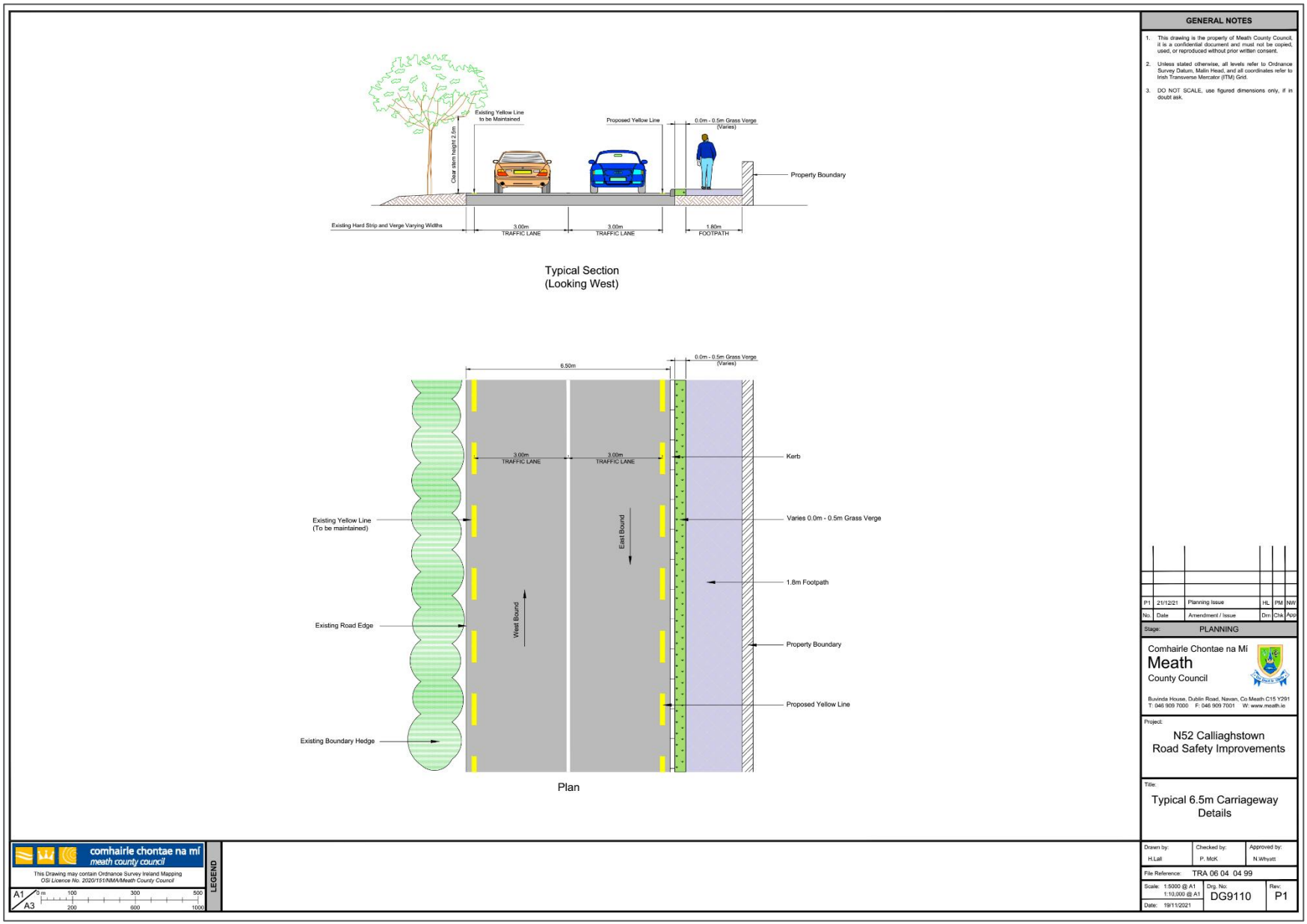


Figure 1-1 Plan and Cross Section illustration of footpath configuration.

Figure 1-2 Location of proposed Road Safety Improvement Works on N52, southwest of Kells.

2. Scope of Study

The aim of this report is to provide supporting information to assist the competent authority to carry out an Appropriate Assessment determination with respect to the proposed project.

2.1. Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 – 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservations of an EU-wide network of sites known as European sites. European sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects that could potentially affect European sites. Article 6(3) establishes the requirement for Appropriate Assessment: -

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

Article 6 (4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan or project will adversely affect a European site. Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures need to be addressed in this case. Article 6(4) states: -

> *"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*
>
> *Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."*

2.2. Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission (EC, 2001; 2018), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009) and also by the National Parks and Wildlife Service in 2018[1] (NPWS 2018). These guidance documents set out a staged approach to complete the AA process and outline the issues and tests at each stage. The stages outlined below are taken from the guidance document Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DEHLG, 2009) and Office of the Planning Regulator; *Appropriate Assessment Screening for Development Management* (2021).

[1] https://www.npws.ie/development-consultations

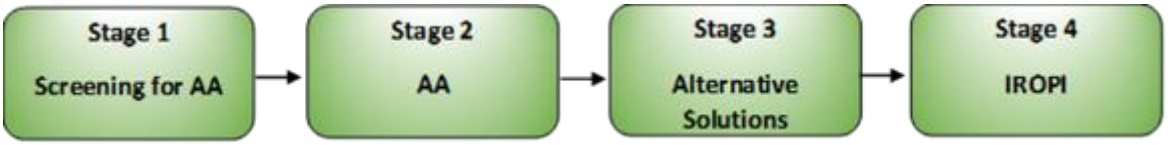


Figure 2-1 Appropriate Assessment Process (Source: DEHLG, 2009)

2.2.1. Screening for Appropriate Assessment

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3): -

i. Whether a plan or project is directly connected to or necessary for the management of the site; and
ii. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Appropriate Assessment.

2.2.2. Appropriate Assessment

Appropriate Assessment considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any necessary mitigation measures.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where sufficient mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to the consideration of alternative solutions.

2.2.3. Alternative Solutions

This examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a European site. The process must return to AA as alternatives will require assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, it is necessary to examine whether there are imperative reasons of overriding interest (IROPI).

2.2.4. IROPI

This examines whether there are imperative reasons of overriding public interest for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed, of which the Commission must be informed.

The AA process only progresses through the full process for certain plans and projects. For example, for a project not connected with the management of a European site and where no likely significant effects on a European site in view of its conservation objectives are identified, the process stops at Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty (EC, 2001; 2018).

3. Methods

3.1. Legislation & Guidance Documents

This report was prepared with reference and due consideration to the following documents and due regard for relevant case law, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (Habitats Directive);
- Statutory Instrument No. 477/2011 — European Communities (Birds and Natural Habitats) Regulations 2011;
- National Parks and Wildlife Service - Development Consultations[2] (NPWS, 2018)
- European Commission (2018). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC;
- European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
- Department of the Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities; and,
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01; and,
- Cases; C-323/17 People Over Wind & anor. V. Coillte; C-461/17 Holohan v An Bord Pleanála; Kelly v An Bord Pleanála & anor [2019] IEHC 84; Eco Advocacy CLG v An Bord Pleanála & anor [2021] IEHC 265, and other relevant court rulings and case law.

3.2. Desk Study

A desk study was carried out to collate information available on European sites in the vicinity of the proposed project. These areas were viewed using Google Earth, Google maps[3] and Bing maps[4] (last accessed on (14/02/2022).

The National Parks and Wildlife Service (NPWS) online databases were reviewed concerning European sites and their features of interest in the vicinity of the proposed project.

The Environmental Protection Agency (EPA) mapping[5] system was used to identify any hydrological connection between the proposed project and European sites, this information was supported by site walkover surveys.

Locations and boundaries of all European sites within the potential zone of influence of the proposed project were identified and reviewed using the NPWS online map viewer. Boundary shapefiles were also downloaded from this site to facilitate the preparation of project graphics.

Desktop information on relevant European sites was reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the NPWS online map viewer, the standard European Data Form for the SAC/SPA which details conditions and threats of the sites, and published information and unpublished reports on the relevant European sites.

Relevant planning information for the surrounding area was reviewed using the planning enquiry systems of Meath County Council. Search criteria were implemented to determine whether such projects or plans would be

[2] https://www.npws.ie/development-consultations
[3] https://www.google.ie/maps
[4] http://www.bing.com/maps/
[5] https://gis.epa.ie/EPAMaps/

relevant to this study and this information was used to determine potential cumulative impacts from other plans / projects with the proposed project.

3.3. Statement of Authority

The Screening for Appropriate Assessment report was prepared by Colin Wilson. Peer review was undertaken by Niamh Sweeney who also provided support.

Colin Wilson has a BSc (Hons) in Environmental Science. He has over 14 years working in the fields of ecology and environmental management. He is a Senior Ecologist with experience in ecological surveying, environmental assessment, on-site ecological supervision and mitigation. He has experience on multiple road projects regarding all elements of surface and groundwater management, monitoring, sampling and associated reporting. Colin also has a broad range of experience in invasive species management, biosecurity and control. Colin has prepared multiple AA screening reports, Natura Impact Statements, and has also been involved in the development of Environmental Operating Plans and Construction Environmental Management Plans for a number of national infrastructure projects.

Niamh Sweeney (BSc, MSc (Res)) is a freshwater ecologist with over 10 years' experience in ecological consultancy, with specialisms in macroinvertebrate and diatom taxonomy. Niamh has worked on numerous Screenings for Appropriate Assessment, Natura Impact Statements and Ecological Impact Assessments for private architect firms, waste companies, numerous County Councils, the OPW and Inland Fisheries Ireland.

4. Existing Environment

4.1. Desktop review

The project site is within the townlands of Calliaghstown, Lackmelch, Townspark and Barfordstown. Residential properties are aligned along either side of the N52 carriageway. The N52 connects with the M3 northbound roundabout ca. 130m from the area of the proposed footpath at nearest point.

The majority of the N52 carriageway within the project site has no formalised drainage infrastructure and surface water drainage from the road currently drains to verges and / or adjacent fields (ditches) at low sections of the undulating carriageway. There are some localised minor drainage systems which drain to field drains installed to relieve local spot flooding during periods of heavy rainfall. The nearest formalised road surface water drainage network is along the M3 motorway and roundabout. The topography of the roadway along the proposed project site does not lend itself to be entirely connected to the M3 road drainage network, however, a ca. 400m section on the eastern side of the project site has availability / topography to drain to the more formalised drainage infrastructure found along the M3 motorway.

The proposed project site is located within the Water Framework Directive (WFD) Blackwater Kells subcatchment (SC_030). There are no surface water features, such as rivers or streams within the footprint of the proposed project.

There is an unnamed stream ca. 420m northeast of the proposed footpath which is a tributary of the Toberultan Stream. This unnamed watercourse (Code: IE_EA_07T180970) and the Toberultan stream have an 'Unassigned' WFD status (2013-2018) and are detailed within EPA records as being 'At Risk' of not achieving favourable water quality status. The unnamed tributary flows under the M3 motorway junction (ca 420m northeast of the commencement of the footpath) and from this area connects to the Toberultan stream and subsequently flows in a general southeast direction for ca. 9km before outfalling to the River Blackwater.

The proposed project site lies within the Baillieborough groundwater body (IE_EA_G_006) which has a 'Good' WFD status (2013-18) and is noted to be 'Not at Risk'.

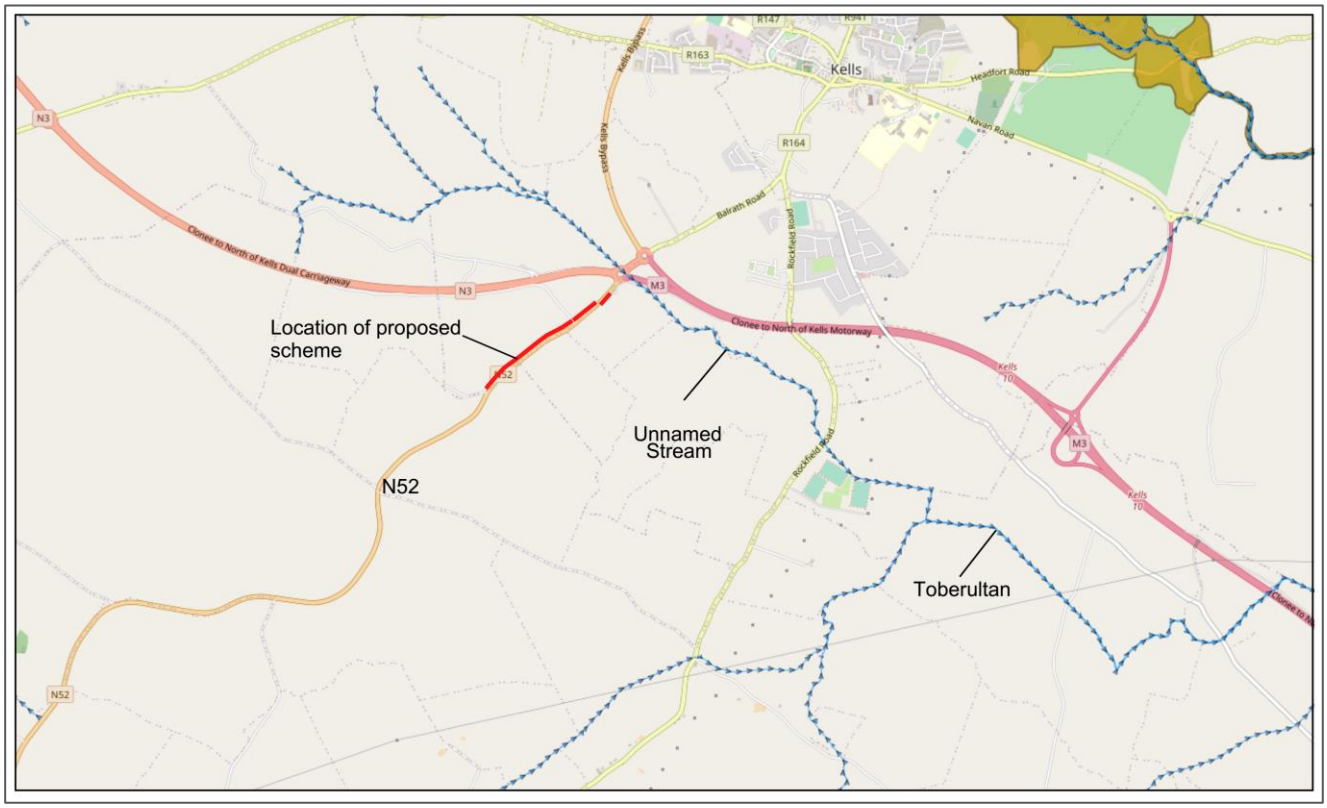


Figure 4-1 Watercourses within the vicinity of the proposed project.

5. Appropriate Assessment Screening

5.1. Connectivity of Works Area to European Sites

The '*zone of influence*' (ZoI) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2019).

A distance of 15km is currently recommended, in the case of plans or projects, as a potential zone of influence and this distance is derived from UK guidance (Scott Wilson *et al*, 2006). For some projects, the distance could be much less than 15km, and in some cases less than 100m, but National Parks and Wildlife Service guidance[6] advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.

It follows that given the nature of the proposed project the potential zone of influence will be limited to the closest European sites or to those hydrologically connected to the proposed project.

The proposed project site does not lie within any European site. There are no ecological corridors present, such as woodlands, within the proposed site which could provide direct connectivity to any European site.

Storm water / surface water drainage from the east side of the proposed scheme will drain to the adjacent N52 roadway drainage network which connects to the M3 motorway drainage network. The M3 storm water / surface water drainage network outfalls (via a tributary) to the Toberultan Stream which connects to the River Blackwater ca. 9km downstream of the project site. As such, there is potential indirect connectivity from the project site to the River Boyne and River Blackwater SAC (002299) and the River Boyne and River Blackwater SPA (004232) via storm water / surface water drainage from the proposed scheme when it is operational.

There are 4 no. European sites within the potential zone of influence of the proposed project. The closest European sites are found along the River Blackwater which is located ca. 3km north east of the proposed project site. This river forms part of the River Boyne and River Blackwater SAC (002299) and the River Boyne and River Blackwater SPA (004232).

Table 5-1 below lists the designated European sites within the potential zone of influence of the proposed project site and details their distance from the proposed project site along with the features of interest for which these conservation sites have been designated. This table also details if the European site is within the ZoI of the proposed project or not.

European sites within 15km of the proposed path project are illustrated in Figures 5-1 and 5-2 below.

[6] DoEHLG (2009*). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of Environment, Heritage and Local Government, Dublin, Ireland.

Table 5-1 European Sites within the potential ZoI of the proposed project.

Site Name & Code	Distance from site	Features of Interest	Assessment
River Boyne and River Blackwater SAC (002299)	ca. 2.7km north east via land, ca. 9km downstream via watercourses	• Alkaline fens [7230] • Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Lampetra fluviatilis* (River Lamprey) [1099] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355]	The SAC is designated for a series of freshwater habitats and species. There is no direct overlap between the proposed project site and the SAC, nor do these habitats or species occur within or in close proximity to the proposed project. Potential indirect connectivity exists between the project site and this SAC via the scheme's storm / surface water drainage which (from the east side of the proposed scheme) will outfall via a tributary to the Toberultan Stream which outfalls ca. 9km downstream to this European site. Potential impacts on this SAC are discussed further below.
River Boyne and River Blackwater SPA (004232)	ca. 2.8km north east via land, ca. 9km downstream via watercourses	• *Alcedo atthis* (Kingfisher) [A229]	The River Boyne and River Blackwater SPA is designated for the presence of Kingfisher. There is no direct overlap between the proposed project site and the SPA. There is no risk of disturbance to Kingfisher species accommodated within the SPA. The project site does not provide habitats suitable for hosting Kingfisher. Potential indirect connectivity exists between the project site and this SAC via the scheme's storm / surface water drainage which (from the east side of the proposed scheme) will outfall via a tributary to the Toberultan Stream which outfalls ca. 9km downstream to this European site. Potential impacts on this SPA are discussed further below.
Girley (Drewstown) Bog SAC (002203)	ca. 4.4km south west	• Degraded raised bogs still capable of natural regeneration [7120]	Girley (Drewstown) Bog SAC is designated for bog habitat. There is no direct overlap between the proposed project site and the SAC, nor does this habitat occur within or in close proximity to the proposed project. There is no indirect connectivity from the proposed project to this SAC via surface water features, drainage ditches or by any other vectors. This site is not considered further.
Killyconny Bog (Cloghbally) SAC (000006)	ca. 8.9km north west	• Active raised bogs [7110] • Degraded raised bogs still capable of natural regeneration [7120]	Killyconny Bog (Cloghbally) SAC is designated for bog habitats. There is no direct overlap between the proposed works and the SAC, nor do these habitats occur within or in close proximity to the proposed project. There is no indirect connectivity from the proposed project to this SAC via surface water features, drainage ditches or by any other vectors. This site is not considered further.

Figure 5.1 SACs within 15km of the project site location.

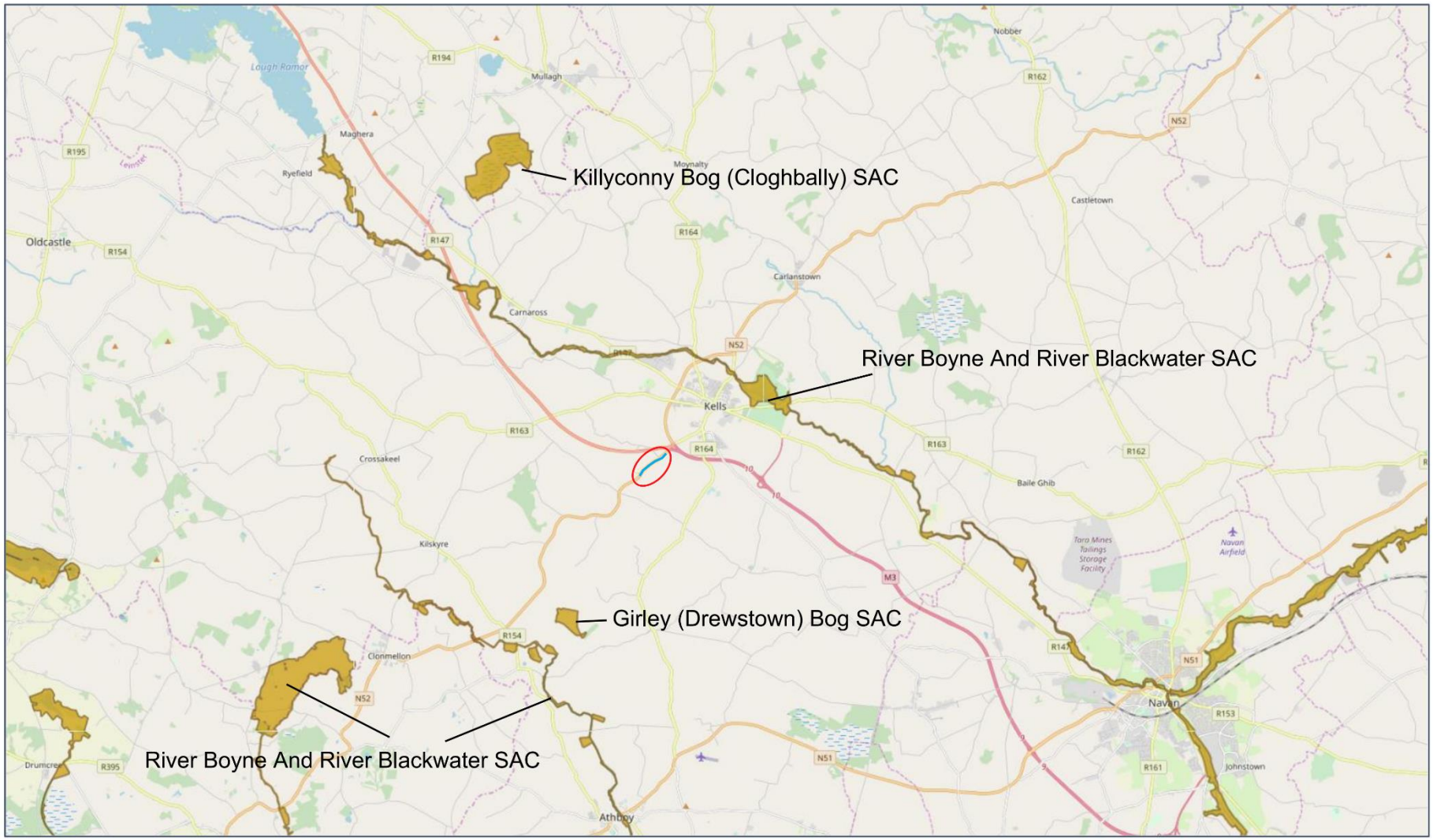
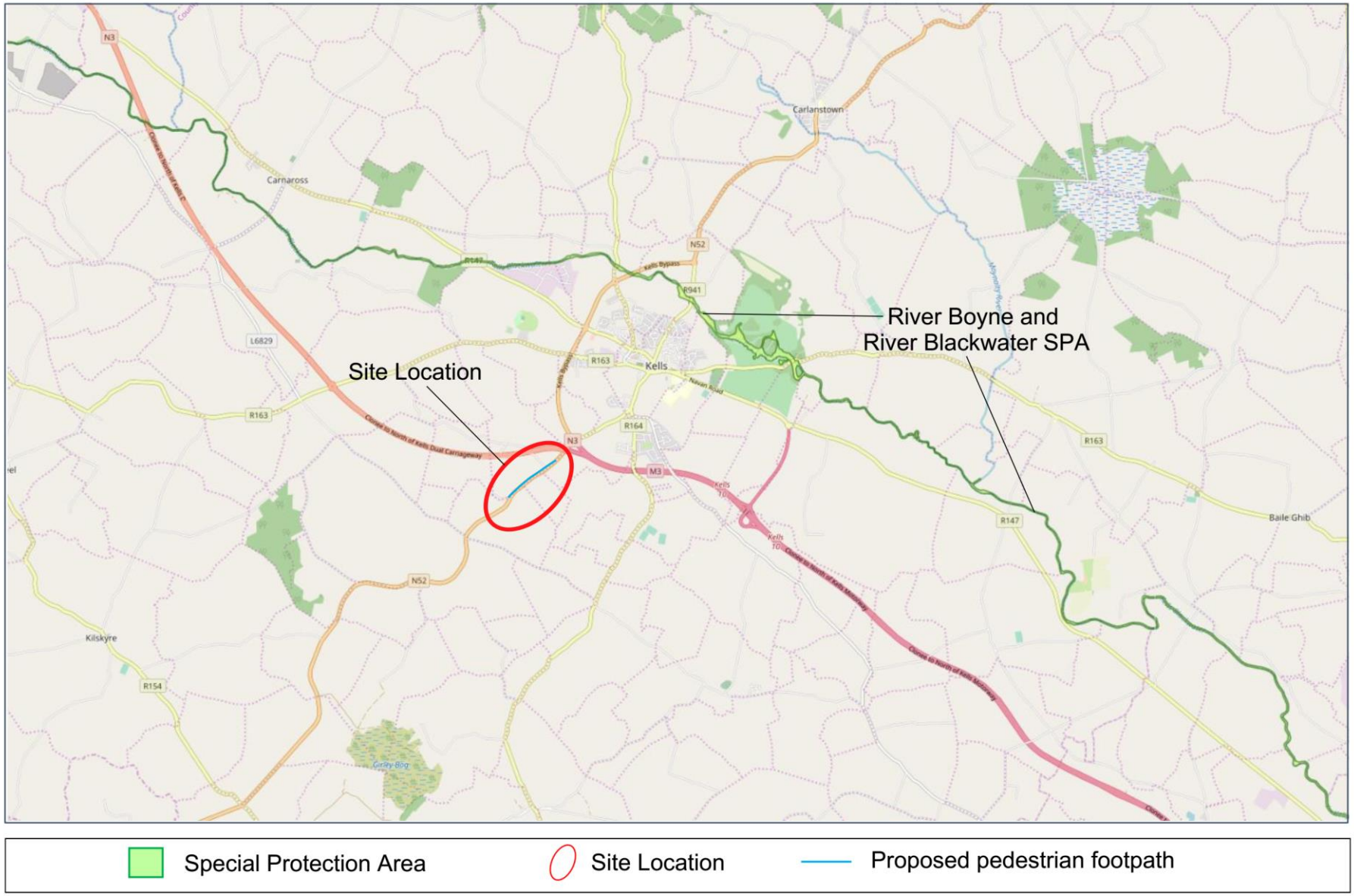


Figure 5.2 SPAs within 15km of the project site location.



5.2. Brief Description of River Boyne and River Blackwater SAC

A synopsis of the SAC, as detailed by NPWS, is as follows[7]: -

> "*This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth.*
>
> *The Blackwater is a medium sized limestone river which is still recovering from the effects of the arterial drainage scheme of the 1970s. Salmon stocks have not recovered to the numbers that existed pre-drainage.*
>
> *This site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive which it supports, namely River Lamprey (*Lampetra fluviatilis*), which is present in the lower reaches of the Boyne River, and Otter (*Lutra lutra*), which can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals, with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act, 1976.*
>
> *Whooper Swans winter regularly at several locations along the Boyne and Blackwater Rivers. Known sites are at Newgrange (approx. 20 in recent winters), near Slane (20+ in recent winters), Wilkinstown (several records of 100+) and River Blackwater from Kells to Navan (104 at Kells in winter 1996/97, 182 at Headfort in winter 1997/98, 200-300 in winter 1999/00). The available information indicates that there is a regular wintering population of Whooper Swans based along the Boyne and Blackwater River valleys.*
>
> *Fishing is a main tourist attraction on the Boyne and Blackwater and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. The Eastern Regional Fishery Board have erected fencing along selected stretches of the river as part of their salmonid enhancement programme. Parts of the river system have been arterially dredged. In 1969 an arterial dredging scheme commenced and disrupted angling for 18 years. The dredging altered the character of the river completely and resulted in many areas in very high banks. The main channel from Drogheda upstream to Navan was left untouched, as were a few stretches on the Blackwater. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This is extremely destructive to salmonid habitat in the area. Drainage of the adjacent river systems also impacts on the many small wetland areas throughout the site. The River Boyne is a designated Salmonid Water under the E.U. Freshwater Fish Directive.*
>
> *The site supports populations of several species listed on Annex II of the E.U. Habitats Directive, and habitats listed on Annex I of this Directive, as well as examples of other important habitat types. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks, and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site, as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species."*

[7] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY002299.pdf

5.3. Conservation Objectives of River Boyne and River Blackwater SAC

The Habitats Directive defines when the conservation status of the listed habitats and species is considered as favourable. The definitions it uses for this are specific to the Directive. In summary, they require that the range and areas of the listed habitats, and the range and population of the listed species, should be at least maintained at their status at the time of designation. Site-specific conservation objectives aim to define favourable conservation conditions for a particular habitat or species at that site.

Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows.

Favourable conservation status of a habitat is achieved when: -

- Its natural range, and area it covers within that range, are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when: -

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for River Boyne and River Blackwater SAC, to maintain or restore the favourable conservation for each of the qualifying interests of the site, were published by NPWS (2021a) Version 8.0; 14/07/2021. There are no site-specific conservation objectives set for the qualifying interests of the SAC.

5.3.1. Potential Threats on the SAC

The threats, pressures and activities[8] with impacts on River Boyne and River Blackwater SAC are listed in Table 5-2.

Table 5-2 Threats, pressures and activities with impacts on River Boyne and River Blackwater SAC.

Rank	Threats and pressures (code)	Threats and pressures (type)	Inside/outside/both (i/o/b)
M	G02.10	other sport / leisure complexes	i
H	H01	Pollution to surface waters (limnic, terrestrial, marine & brackish)	i
L	D01.05	bridge, viaduct	i
M	A07	use of biocides, hormones and chemicals	i
M	A08	Fertilisation	i
M	A05.02	stock feeding	o
L	G01	Outdoor sports and leisure activities, recreational activities	i

[8] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF002299.pdf

H	J02.15	Other human induced changes in hydraulic conditions	i
M	A01	Cultivation	i
M	A10.01	removal of hedges and copses or scrub	i
M	C01.01	Sand and gravel extraction	i
L	G05.06	tree surgery, felling for public safety, removal of roadside trees	i
L	G05	Other human intrusions and disturbances	i
M	A10.01	removal of hedges and copses or scrub	i
M	E05	Storage of materials	i
M	E01.04	other patterns of habitation	i
M	J02.11	Siltation rate changes, dumping, depositing of dredged deposits	i
M	J02.10	management of aquatic and bank vegetation for drainage purposes	i
M	D01.02	roads, motorways	i
M	E03.02	disposal of industrial waste	i
H	E03.04	Other discharges	i
M	J02	human induced changes in hydraulic conditions	i
H	E02	Industrial or commercial areas	i
H	I01	invasive non-native specie	i
M	B01.02	artificial planting on open ground (non-native trees)	i

H= High, M=Medium, L=Low.

5.4. Brief Description of River Boyne and River Blackwater SPA

A synopsis of the SPA, as detailed by NPWS, is as follows[9]: -

> *"The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.*
>
> *Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.*
>
> *The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.*
>
> *A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22*

[9] https://www.npws.ie/protected-sites/spa/004232

Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive."

5.5. Conservation Objectives of the SPA

The Conservation Objectives for the River Boyne and River Blackwater SPA are to maintain or restore the favourable conservation condition of the bird species; Kingfisher, as Special Conservation Interests for this SPA. There are no site-specific conservation objectives set for this SPA (NPWS, 2011b).

The favourable conservation status of a species is achieved when: -

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- The natural range of the species is neither being reduced not is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

5.5.1. Potential Threats on the SPA

The threats, pressures and activities[10] with impacts on River Boyne and River Blackwater SPA are listed in Table 5-3.

Table 5-3 Threats, pressures and activities with impacts on River Boyne and River Blackwater SPA.

Rank	Threats and pressures (code)	Threats and pressures (type)	Inside/outside/both (i/o/b)
M	J02	human induced changes in hydraulic conditions	i
H	E01	Urbanised areas, human habitation	o
H	D01.02	roads, motorways	i
H	D01.02	roads, motorways	o
H	E01.03	dispersed habitation	o

H= High, M=Medium, L=Low.

[10] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004232.pdf

5.6. Likelihood of Potential Impacts on European Sites

The available information on the European Sites within 15km of the proposed project was reviewed to establish whether or not the proposed shared path project is likely to have a significant effect on the conservation objectives of the SAC / SPA. The likelihood of impacts on the features of interest of European Sites identified in this report is based on information collated from the desk study, site plans and other available existing information.

The likelihood of impacts occurring are established in light of the type and scale of the proposed works, the location of the proposed works with respect to European sites and the features of interest and conservation objectives of the European sites.

This screening report is prepared following the Cause – Pathway – Effect model. The potential impacts are summarised into the following categories for screening purposes.

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect impacts refer to those which can arise through remote connectivity, for example by means of a watercourse, via groundwater, via air (e.g. dust) or via other emissions from a project site (e.g. noise and light). Indirect and secondary impacts do not have a straight-line route between cause and effect. It is potentially more challenging to ensure that all the possible indirect impacts of the plan/project – in combination with other plans and projects - have been established. These can arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact. Disturbance to fauna can arise directly through the loss of habitat (e.g. displacement of qualifying interest species) or indirectly through noise, vibration and increased activity associated with construction and operation.

5.7. Identification of Potential Impacts on European Sites

Works will initially involve the removal of residential boundary walls, fences and / or hedgerows to allow for the construction of the path, traffic calming gateways and junction improvement works. All excavated and waste materials will be removed from site to a licenced waste facility. New residential boundaries will be replaced along their new alignment like for like (walls, hedgerows etc.).

The works associated with the construction of the 912m pedestrian pathway will involve the excavation of soils along a strip of varying width to a depth of ca. 250mm. The works will also involve excavations (ca. 200mm wide by 500mm deep) along the alignment of the pathway for the installation of ducting. All excavated materials will be removed from site to a licenced waste facility. Excavations will be followed by ducting and path construction involving infill with stone and ducting pipes, infill of pathway stone sub base materials and laying of the bitumen path surface. Works will also involve the installation of a new kerb along the roadside edge which will involve the use of precast kerbs with concrete (lean mix) base.

The total length of project site is ca. 1,700m and works outside of the 912m footpath alignment include for some minor fence alterations and new road signage prior to and after the footpath along the N52 roadway for speed restriction purposes. The works associated with construction of the traffic calming gateways will involve local excavation of the existing road and reconstruction with stone sub-base and new bituminous surfacings required for the minor re-alignment local to the proposed gateways, excavation and reinstatement of verges, excavation of roads and verges for to install signage poles, lighting poles, ducting and associated electrical power supply infrastructure and subsequent reinstatement with stone sub-base infill and bituminous surfacings or in the case of verges with topsoil. All excavated material will be removed from site to a licenced facility.

The works associated with construction of the junction improvement works will involve: Excavation of the existing roads and verges for the minor re-alignment local to the proposed junctions (600mm deep), install signage poles (750mm deep), relocated utility poles (1.2m deep), ducting (750mm deep). All excavated material will be removed from site to a licenced facility; Installation of and reinstatement to signs and posts, ducting, relocated utility poles; Subsequent reinstatement with concrete kerbs, in-situ concrete, stone sub-base infill and bituminous surfacings or in the case of verges with topsoil; ; new road markings.

Where the above works require boundaries to be realigned, new boundaries will be constructed involving the removal of existing walls, hedges, fences and earthen banks; excavation for new boundary foundations (where

applicable); placement of concrete for new boundary wall foundations (where applicable); construction of new stone or block boundary walls or agricultural fences; planting of new hedges.

Storm water / Surface water run-off for the proposed footpath and existing roadway will predominantly (for ca. 1,300m) drain to field drains / ditches / wetland via the existing and new drainage network in adjacent roadways (N52 / L68355). On the east side of the proposed scheme, surface water from ca. 400m of the proposed scheme will drain to the M3 road drainage network which outfalls via a tributary to the Toberultan stream.

Final works will involve infill of verges with soils followed by grass seeding and / or wildflower mix and also new road surface markings.

5.7.1. Potential Direct Impacts; Construction Phase

The project site is remote from any European site with the closest being the River Boyne and Blackwater SAC / SPA, the extents of which are ca. 2.7km / 2.8km from the commencement of the project site. Project works will only be carried out within the red line boundary of the proposed project site. Given the location, scale and nature of the proposed works there is no potential for direct impacts during the construction phase of the proposed project which could affect the habitats, species or the conservation objectives of the River Boyne and Blackwater SAC / SPA or any other European site.

5.7.2. Potential Indirect Impacts; Construction Phase

During the construction phase, surface / storm water run-off from work zones will drain to ground and / or drain to the adjacent road drainage networks (N52 roadway, L68355 local roadway, M3 motorway). During heavy rainfall events there is therefore the potential for contaminating materials such as concrete, silt and sediment laden runoff from work zones to enter the road drainage networks during the construction phase of the proposed project.

Surface water run-off from the majority of the project's works areas (i.e. ca. 1,300m out of 1,700m of project site) will drain to local field drains. For these areas / work zones there is no connectivity from the project site to any watercourse. As such, potential indirect impacts via watercourses on the River Boyne and River Blackwater SAC / SPA from contaminated surface water run-off from these works areas are precluded.

On the east side of the proposed scheme (ca. 400m of the 1,700m project site), surface water run-off from works zones will drain to the M3 motorway drainage network which outfalls via a tributary to the Toberultan Stream. Subsequently the Toberultan Stream outfalls ca. 9km downstream of the project site to the River Boyne and River Blackwater SAC / SPA. The potential for contaminated surface water run-off from the works zones within this 400m section of the project site to contaminate the Toberultan Stream and subsequently impact the River Boyne and Blackwater SAC / SPA is considered.

The construction activities required for the proposed project are of a small scale and short duration and the risk of contaminated surface water run-off from works zones to significantly impact the surface water quality of the Toberultan Stream is considered to be low. Whilst the risk is considered to be low, in the event that project works do impact the surface water quality the Toberultan Stream, there will be no likely adverse impact upon the water quality of the downstream River Boyne and River Blackwater SAC / SPA given the dilution and settling out that would occur over ca. 9km of watercourse. The potential indirect connectivity of the project's work zones via the road drainage network and subsequently ca. 9km of watercourse is not considered a viable pathway through which the qualifying interest habitats and species of the River Boyne and River Blackwater SAC / SPA could potentially be impacted in view of their conservation objectives.

The works associated with the proposed project will involve excavations at a general maximum excavation depth of 750mm, however, the relocation of Eircom poles will require deeper excavations in small localised areas. Given the nature and scale of the works associated with the proposed project, significant impacts on the local groundwater body, or upon local hydrogeological conditions, are not anticipated. Given the distance of the proposed project site to the European sites associated with the River Blackwater (ca. 2.7km / 2.8km) and given the lack of anticipated impacts on the local groundwater, it is considered that indirect impacts on the River Boyne and River Blackwater SAC / SPA, or any other European site, via groundwater pathways is not likely.

The River Boyne and River Blackwater SAC is designated for the protection of otter. Habitats suitable for accommodating otter are not found within the project site. During the construction phase of the proposed project there is no potential for disturbance related impacts on this qualifying interest species of the SAC as the project site is sufficiently remote from the SAC (ca. 2.7km).

The River Boyne and River Blackwater SPA is a designated site for the protection of Kingfisher. It is noted that Kingfisher favour river channels and riparian corridors. These habitat types are not found within the proposed project site. The proposed project site is sufficiently remote from the SPA (ca. 2.8km) so as to negate any potential indirect impacts, such as long term, short term or repeated disturbance to Kingfishers. During the construction

phase of the proposed project, it is considered there is no potential for direct or indirect impacts on the qualifying interest species of the River Boyne and River Blackwater SPA.

It is considered during the construction phase of the proposed project, given the nature, scale and location of the proposed works and also given the lack of direct or viable indirect connectivity, there is no potential for direct or indirect impacts on the River Boyne and River Blackwater SAC / SPA or any other European site.

5.7.3. Potential Impacts; Operational Phase

As noted above, there is potential indirect connectivity to the downstream River Boyne and River Blackwater SAC / SPA through the M3 road drainage network and on through ca. 9km of tributary and Toberultan Stream. During the operational phase of the proposed project, surface water drainage from sections of the footpath will drain to M3 road drainage network, therefore the potential for impacts to the SAC / SPA from surface water run-off during the operational phase of the footpath is considered.

Volumes / flows of storm water run-off from the proposed ca. 912m length of footpath will not be significant. There will be no change to surface water flows or volumes currently emanating from the existing N52 roadway. The potential for adverse impacts to the water quality of the Toberultan Stream from any additional storm/surface water run-off from the hard standing areas of the footpath is considered to be negligible. Also, given the dilution and settling that would occur over ca. 9km of watercourse, this potential hydrological connectivity is not considered a viable pathway through which the qualifying interests of the downstream SAC / SPA could potentially be impacted.

Given the nature, scale and location of the proposed project, and considering the lack of direct or viable indirect connectivity to the River Boyne and Blackwater SAC / SPA, there is no potential for surface water drainage from the project site to indirectly impact the SAC / SPA, or any European site, during the operational phase of the footpath. There are no other emissions (such as dust or noise) anticipated during the operation of the new footpath that could potentially impact any European site and the status of traffic volumes on the N52 roadway will not be altered.

It is concluded that either during the construction or operational phases of the proposed project, direct or indirect likely significant effects on the River Boyne and Blackwater SAC / SPA, or any other European site, are not anticipated.

5.8. Cumulative Impacts

Available Meath County Council records were reviewed with respect to other plans or projects which have the potential to occur during the same period as the proposed N52 Road Safety Improvement Scheme to determine if there is the potential for other works or projects to act in combination with the proposed project to give rise to potential cumulative impacts on European sites.

All of the submitted planning applications within the vicinity of the proposed pathway project are local developments and are small scale projects consisting of private property extensions, single dwelling houses and retention projects.

It is considered that the proposed N52 Road Safety Improvement Scheme will not result in any direct or indirect impact on any European site. No impacts from other local small scale developments on the River Blackwater and River Boyne SAC / SPA are anticipated. In the absence of any potential impacts as a result of the proposed project there is no pathway for other projects to act in-combination with the proposed project to give rise to cumulative effects on any European site.

5.9. Likelihood of Significant Effects on European Sites

The proposed project does not lie within any European site and there is no direct connectivity to any SAC or SPA. There is no viable indirect connectivity from the proposed project site to the River Boyne and River Blackwater SAC / SPA or any other European site. Given the lack of direct or viable indirect connectivity to any European site and given the scale, nature and location of the proposed project, it is considered that the proposed project, either during construction or operation, is unlikely to affect any European site.

5.10. Consideration of Findings

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that the proposed N52 Road Safety Improvement Scheme either individually or cumulatively, poses no likely significant effects on any European sites in view of their conservation objectives. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment.

The screening for Appropriate Assessment for the proposed N52 Road Safety Improvement Scheme is based on current and available information. Should the scope, nature or extent of the proposed scheme change, a new Screening for Appropriate Assessment report may be required.

6. Appropriate Assessment Screening Matrix

Table 6-1 Screening Matrix.

1. Description of the project or plan	
Location	N52, Lackmelch, south west Kells
Distance from designated site	ca. 2.7km (SAC) / 2.8km (SPA)
Brief Description of the project or plan	See Section 1.1
Is the plan directly connected with or necessary to the site management for nature conservation?	No

2. Brief Description of the European site(s)	
Name	River Boyne and River Blackwater
Site designation status	SAC SPA
Qualifying interests	See Table 5-1
Unit size	SAC: 2317.86 hectares, 0.0% Marine area SPA: 460.14 hectares, 0.0% Marine area

3. Assessment Criteria	
Other plans or projects which may have a cumulative impact	There are no likely impacts arising from the proposed works on the European sites and there are no other plans or projects ongoing at the same time that would contribute to a cumulative impact on the European sites. Therefore, cumulative impacts with other projects will not occur.
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European sites.	No significant impacts are anticipated from either the construction of operation of the pathway. No in-combination impacts are anticipated.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European site by virtue of: Size and scale Land-take Distance from European site or key features of the site Resource requirements Emissions Excavation requirements	The project is small in scale, with minor land take. No land take within or adjacent to a European site is required. Surface water / storm water are the only emissions during construction /operation and no impacts are anticipated on European sites from surface water run-off. Small scale shallow soil excavations only.

3. Assessment Criteria	
Transportation requirements Duration of construction, operation etc. Others	
Describe any likely changes to the site arising as a result of: Reduction of habitat area Disturbance of key species Habitat or species fragmentation Reduction in species density Changes in key indicators of conservation value Climate change	There are no likely changes to the site as a result of the proposed works. There shall be no reduction of habitat area within European sites as a result of the proposed project. There shall be no habitat or species fragmentation or reduction in species density as a result of the works.
Describe any likely impacts on the European site as a whole in terms of: Interference with the key relationships that define the structure of the site Interference with key relationships that define the function of the site.	There are no likely changes to the site as a result of the proposed project works with respect to the key relationships that define the structure or function of the SAC/SPA.
Provide indicators of significance as a result of the identification of effects set out above in terms of: Loss Fragmentation Disruption Disturbance Change to key elements of the site	There is no potential for impact to qualifying interests of the SAC/SPA given the nature and scale of the works.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.	No significant impacts are likely as a result of the proposed works.

Data collected to carry out the assessment			
Who carried out the assessment	Sources of data	Level of assessment completed	Where can the full results of the assessments be accessed and viewed?
Atkins 150 Airside Business Park Swords Co. Dublin	Desktop data derived from the NPWS – European form, site synopsis, SAC/SPA reports etc. National Biodiversity Date Centre online data. EPA Envision Mapping system; Google maps; Bing Maps etc. Meath County Council Development Plan Kells Development Plan Meath County Planning Enquiry	Screening	Atkins 150 Airside Business Park Swords Co. Dublin

7. References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Department of the Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.

European Commission (2018). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC.

European Commission (2007). Guidance document on Article 6(4) of the 'Habitats Directive' 92/49/EEC; clarification of the concepts of: Alternative solutions, Imperative reasons of overriding public interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.

Fossitt, J. (2000). A Guide to Habitats in Ireland. The Heritage Council.

Scott Wilson and Levett-Therivel, (2006) Appropriate Assessment of Plans. Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants.

Meath County Council Planning Dept. https://housinggovie.maps.arcgis.com

NPWS (2014) Site Synopsis; River Boyne and River Blackwater SAC Rev 13.

Natura 2000 – Standard Data Form (2006) - River Boyne and Blackwater SAC (IE0002299)

NPWS (2021a) Conservation objectives for River Boyne and River Blackwater SAC [002299]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS (2021b) Conservation objectives for the River Boyne and River Blackwater SPA [004232]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS (2010) Site Synopsis; River Boyne and River Blackwater SPA.

Natura 2000 – Standard Data Form (2019) - River Boyne and Blackwater SPA (IE0004232)

Appendices

Appendix A. Design Drawings

ALIGNMENT - N52 CENTRLINE - LONGSECTION
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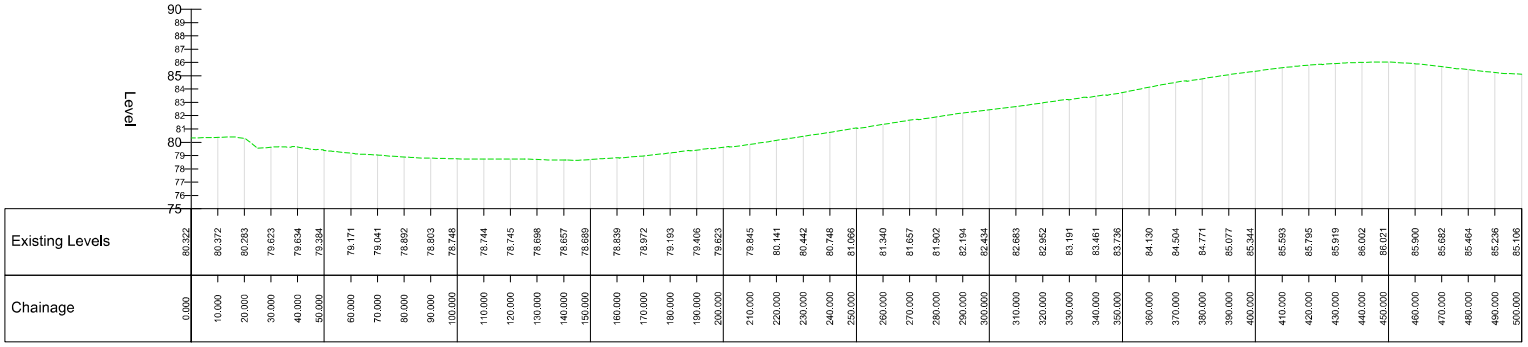

LEGEND

No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

Comhairle Chontae na Mí
Meath
County Council

Buvinda House, Dublin Road, Navan, Co Meath C15 Y291
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Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 1 - (CH 0-500)

comhairle chontae na mí
meath county council

A1 / A3

LEGEND

- GRASS VERGE - 1.0m WIDE
- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
- EXISTING FOOTPATH
- EXISTING KERBLINE
- PROPOSED KERBLINE

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D Muldoon	D Muldoon	N Whyatt

File Reference: TRA 06 04 04 99

Scale: 1:1000 @ A1
1:2000 @ A3
Date: 24/11/20

Drg. No: DG9211

Rev: D02

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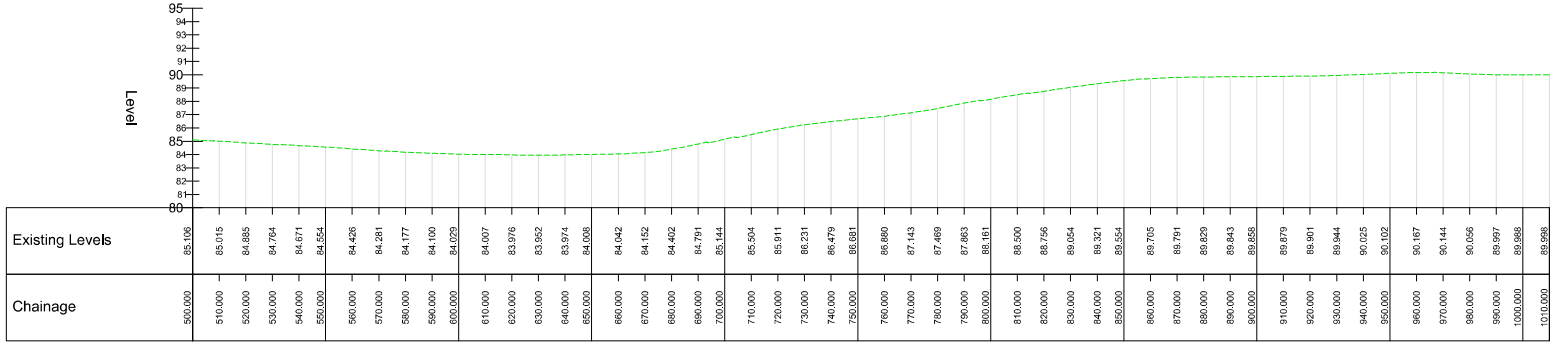

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No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

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Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 2 - (CH 500-1010)

A1 / A3

LEGEND

- GRASS VERGE - 1.0m WIDE
- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
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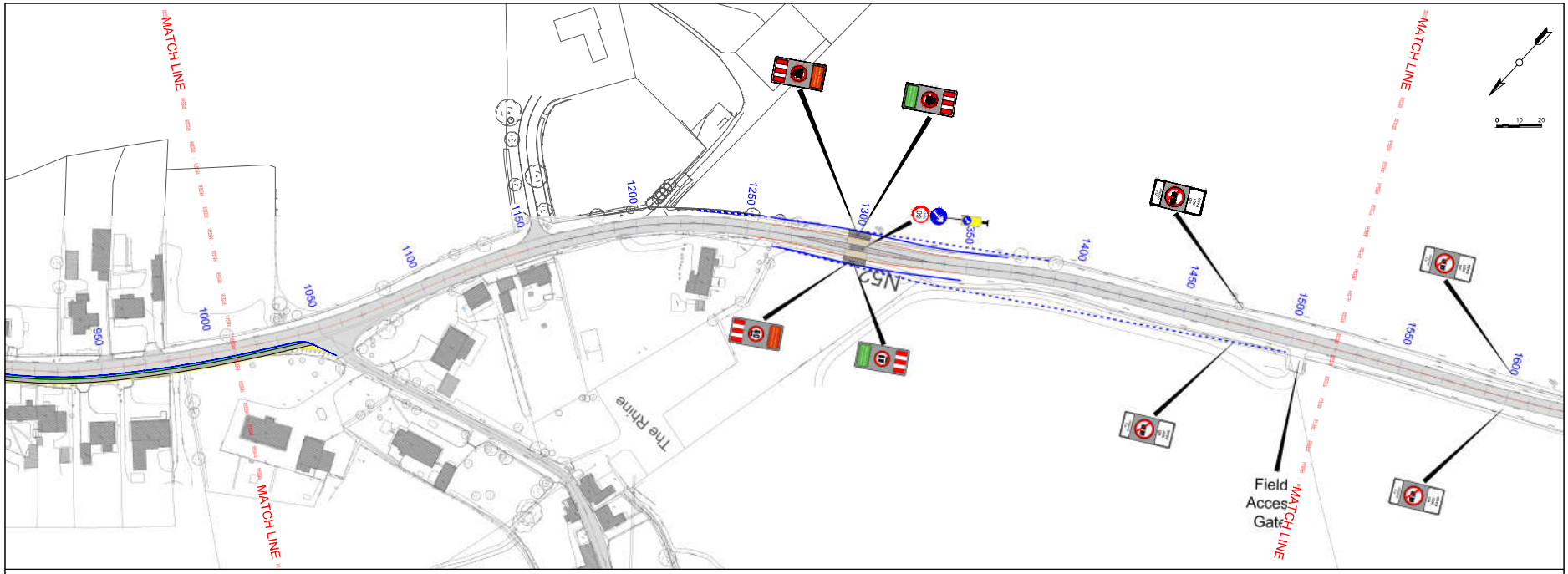
Rev: D02
Date: 24/11/20



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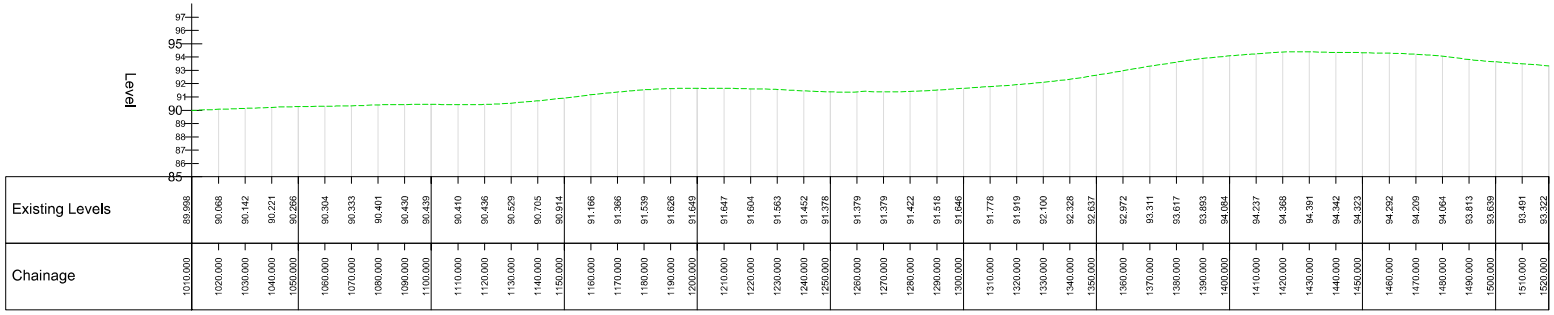

LEGEND

No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

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Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 3 - (CH 1010-1520)

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A1 / A3

LEGEND

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- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
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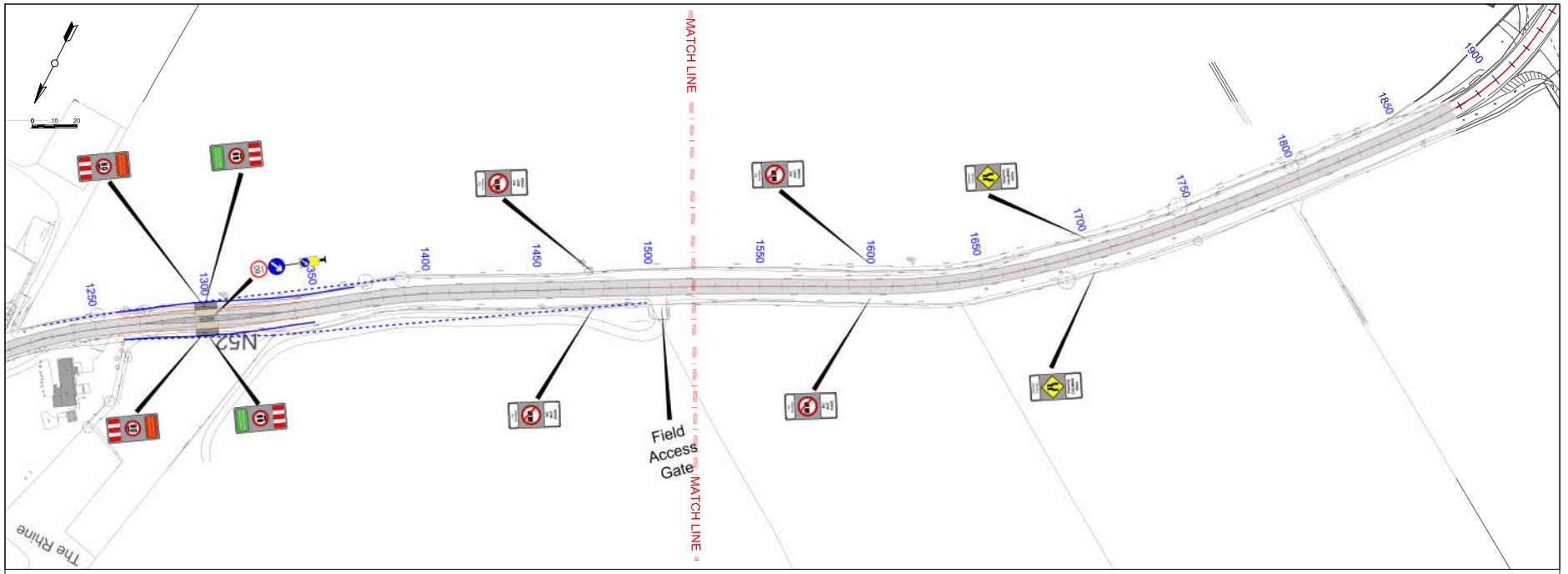

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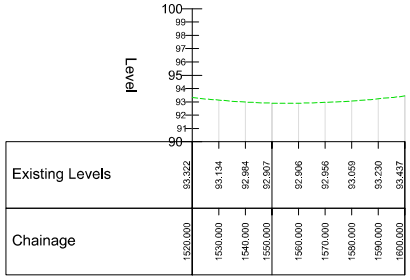

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No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

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N52 Calliaghstown
Road Safety Improvements

Title:
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Road Profile
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LEGEND

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- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
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Date: 24/11/2020
Drg. No: DG9214
Rev: D02

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Appendix E – Environmental Impact Assessment (EIA) Screening Report & Screening Determination

EIA Screening Report

EIA Screening Determination

ATKINS

Member of the SNC-Lavalin Group

N52 Road Safety Improvement Scheme, Calliaghstown, Kells, County Meath

Environmental Impact Assessment Screening Report

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 the N52 Road Safety Improvement 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.

This document has 25 pages including the cover.

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft for comment	JL	JL	CW		23/07/2021
Rev 1	Draft for comment	JL	JL	CW		15/11/2021
Rev 2	For submission	JL	JL	CW	MF	21/02/2022
Rev 3	For submission	JL	JL	CW	MF	01/03/2022
Rev 4	For submission	JL	JL	CW	MF	10/03/2022

Client signoff

Client	Meath County Council
Project	N52 Road Safety Improvement Scheme, Calliaghstown, Kells, County Meath
Job number	5203694
Client signature / date	

Contents

Tables

Figures

1. Introduction

Atkins Ireland have been commissioned by Meath County Council to prepare an Environmental Impact Assessment (EIA) Screening Report for the proposed Road Safety Improvement Scheme on the N52 National Secondary Road at the townlands of Calliaghstown, Townspark, Lackmelch and Barfordstown, south west of Kells, Co. Meath.

1.1. The Proposed Project

The proposed road safety improvement works comprise two 'gateways' located at Barfordstown and Calliaghstown close to the existing N52/M3 roundabout to reduce vehicular traffic speeds to posted 60km/hr speed limits; improvement works to the junctions of the N52 with Boolies Road (L68350) and The Rhine road (L68355); and approximately 912m of footpath primarily along the northside of the N52 at Calliaghstown.

The proposed works will comprise of:

- Installation of traffic calming measures (gateways) on the N52 at Calliaghstown and Barfordstown;
- Junction Upgrade works to the junction of the N52 with Bolies Road local road (L68350) and to the junction of the N52 with the Rhine local road (L68355);
- Provision of a footpath and verges (approx. length 912m) from the existing path at M3/N3/N52 roundabout to the junction of the N52 with the Rhine local road (L68355);
- Drainage works comprising underground pipelines (both new and upsizing existing), attenuation and discharge to existing M3 Motorway drainage system, Calliaghstown Wetland (upsizing existing outfall) and to un-named field drain (both new and existing outfalls); and,
- Associated minor road realignment, excavation and reinstatement, kerbing, accommodation works, realignment of boundary walls, fences and gates, landscaping works, public lighting, ducting, road marking, road signage, road surfacing, utility poles and overhead wire relocation/alteration, drainage/attenuation works, and ancillary infrastructure works.

The location of the proposed project is illustrated in Figure 1-1.

1.2. Purpose of this Report

The purpose of this report is to determine whether the construction of the Road Safety Improvement Scheme on the N52 national road requires an Environmental Impact Assessment. Taking into account the relevant statutory requirements, this project has been screened to generate a summarised overview of the potential impacts on the receiving environment.

A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2022). The Stage 1 Screening for Appropriate Assessment concluded that the *'proposed N52 Road Safety Improvement Scheme either individually or cumulatively, poses no likely significant effects on any European sites in view of their conservation objectives. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment'.* (Atkins, 2022).

Figure 1-1 Location of proposed Road Safety Improvement Works on N52, southwest of Kells.

Figure 1-1 – Location of proposed Road Safety Improvement Works on N52, southwest of Kells.

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 (2001-2021), 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 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), there are three key steps 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 2001-2021.

  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 an EIA, all of the relevant information as presented within the EIA Planning and Development Regulations 2018 (Schedule 7A) has been provided on behalf of the applicant, MCC. The potential of 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 (2001-2021), including S.I. No. 296 of 2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (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 competent authority to make a determination as to whether an EIAR is required for a particular project.

Figure 2-1 provides a summary of the main steps involved in the EIA Screening Process.

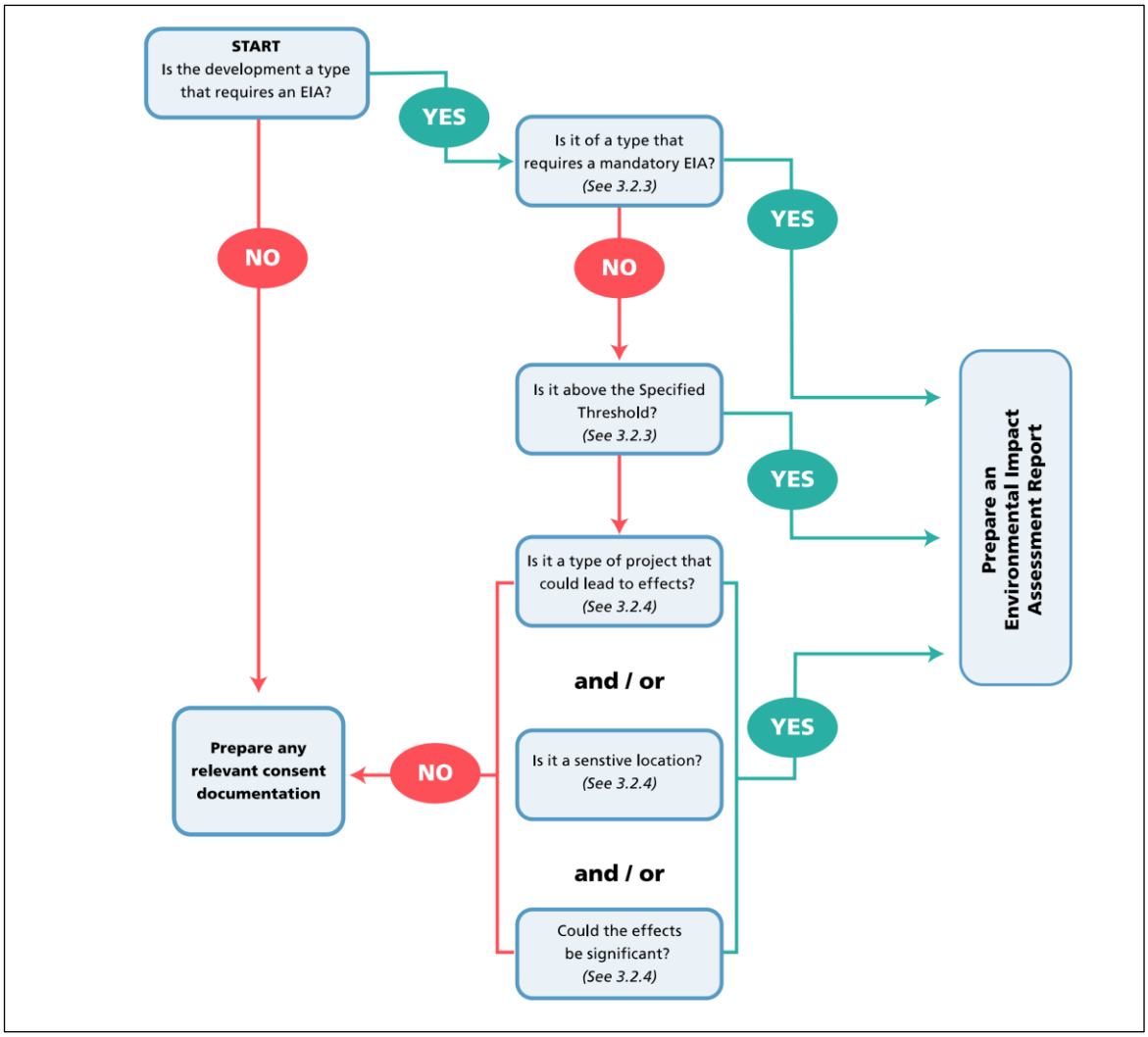

Figure 2-1 - EIA Screening Process

(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.

New EIA Regulations ((Planning and Development) Environmental Impact Assessment) Regulations 2018 (S.I No. 296 of 2018)) transposing the 2014 EIA Directive 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 a mandatory requirement 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 (2001-2021), 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 (2001-2021), 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 development 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 Planning & Development Regulations (2001-2021). 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 Report

3.1. Step 1 - Mandatory Screening for an EIA

The project has been screened against the criteria outlined in Section 50(1)(a) of the Roads Act 1993-2021[1] and Article 8 of S.I. No. 119/1994- Roads Regulations, 1994[2]. 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 Section 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 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 3 - 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, and EIA Planning and Development Regulations 2021 (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))

The proposed development is a Road Safety Improvement Scheme on the N52 at Calliaghstown, Co. Meath between the M3 Motorway/ N3 Type 2 Dual Carriageway/ N52 roundabout junction, extending approximately 1.7 km west towards Mullingar. The total size of the proposed development is 0.4 hectares (ha).

The proposed road safety improvement works comprise two 'gateways' located at Barfordstown and Calliaghstown close to the existing N52/M3 roundabout to reduce vehicular traffic speeds to posted 60km/hr speed limits; improvement works to the junctions of the N52 with Boolies Road (L68350) and The Rhine road (L68355); and approximately 950m of footpath primarily along the northside of the N52 at Calliaghstown.

The proposed works will comprise of:

[1] https://revisedacts.lawreform.ie/eli/1993/act/14/revised/en/html, 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 2001-2021

- Installation of traffic calming measures (gateways) on the N52 at Calliaghstown and Barfordstown;
- Junction Upgrade works to the junction of the N52 with Bolies Road local road (L68350) and to the junction of the N52 with the Rhine local road (L68355);
- Provision of a footpath and verges (approx. length 912m) from the existing path at M3/N3/N52 roundabout to the junction of the N52 with the Rhine local road (L68355);
- Drainage works comprising underground pipelines (both new and upsizing existing), attenuation and discharge to existing M3 Motorway drainage system, Calliaghstown Wetland (upsizing existing outfall) and to un-named field drain (both new and existing outfalls); and,
- Associated minor road realignment, excavation and reinstatement, kerbing, accommodation works, realignment of boundary walls, fences and gates, landscaping works, public lighting, ducting, road marking, road signage, road surfacing, utility poles and overhead wire relocation/alteration, drainage/attenuation works and ancillary infrastructure works.

The total length of project site is ca. 1,700m and works outside of the above include for some minor fence alterations and new road signage prior to and after the footpath along the N52 roadway for speed restriction purposes.

Construction activities will include the removal of some existing boundary walls, fence lines and / or hedgerows in front of residential premises to facilitate the installation of the footpath. The installation of the footpath will also necessitate the removal and realignment of some existing signage and poles in certain locations (e.g. Eircom Poles).

The construction makeup of the path will involve the installation of ca. 250mm of pavement materials as follows; 150mm of CL804 sub-base materials, 60mm of binder material and 40mm of surface dressing. The works will also involve the installation of ducting below the path along the alignment of the pathway with total depth of excavations for ducting to be ca. 400-500mm below pathway level. The installation of ducting is part of the proposed design so as to accommodate future cables should they be required (i.e. future proofing for internet cables, lighting etc).

Works will also involve the installation of a roadside kerb along the eastbound laneway and also the formation of a grass verge separating the roadway kerb from the pedestrian pathway where space is available. The total depth of excavations for kerb and verge works is ca. 250mm below road surface levels. Property walls, fences and / or hedgerow will be reinstated in their new (set back) location with ca. 0.5m of grass verge to be installed to provide separation of the footpath from the residential boundaries.

Drainage works will comprise installation of standard road gullies draining to carrier drainage pipes (approx. 150-450mm diameter and depth 1-3 metres), and outfall headwalls or connection to existing drainage systems. Storm water / surface water drainage for the proposed footpath will predominantly be to local field drains and / or will be to the existing drainage infrastructure in local roadway (N52, L68355 M3 roadways). Drainage of storm water / surface water run-off for the proposed scheme is summarised as follows: -

- East side of scheme (ca. 400m in length) will drain to existing N52 road drainage network which connects to M3 drainage network. The M3 drainage infrastructure outfalls to the Toberultan Stream.
- Mid-section of scheme (ca. 700m in length) will drain to agricultural lands/field drains/wetland located directly north of proposed footpath / scheme.
- West side of scheme (ca. 600m in length) which will remain as existing drain to adjacent verge and to existing road drainage network on local roadway (L68355) which outfalls to local field drains north of proposed footpath / scheme.

There will be small scale demolition works required for the proposed development, with the removal of existing boundary walls, fence lines and hedgerows in front of residential premises to facilitate the installation of the footpath. The total size of private land required for the proposed development is 0.0588ha.

The location and alignment of the proposed pedestrian path is illustrated in Figure 1-1. The plan and cross section design of the proposed footpath along the N52 roadway is illustrated in Figure 3-1.

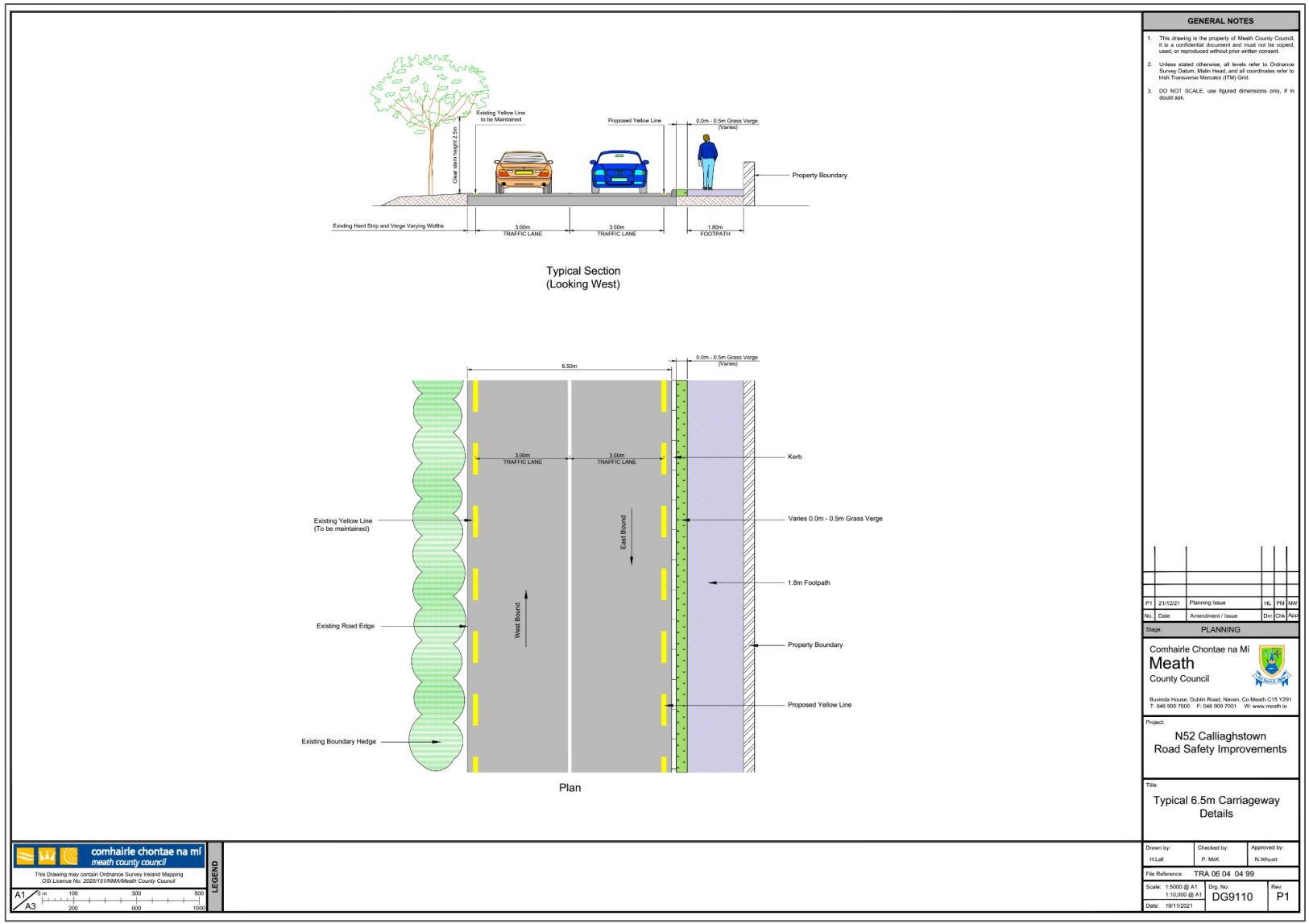

Figure 3-1 - Proposed Project Layout

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)).

Under the Meath Development Plan 2021-2027 (Meath County Council (MCC), 2021) the area of the proposed development is zoned as '*RA – Rural Area'*. Residential properties are aligned along either side of the N52 carriageway

The location of the proposed development is detailed in Section 3.2.1. The environmental sensitivity of geographical areas, which could potentially be affected by the proposed development is evaluated in the following section.

Hydrology

Surface water drainage for the majority of the N52 carriageway currently drains to verges and / or adjacent fields drains (ditches) at low sections of the undulating carriageway. A ca. 400m section on the eastern side of the project site drains to the more formalised drainage infrastructure found along the M3 motorway. New drainage infrastructure, which includes for attenuation, will outfall to the same locations; local field drains predominantly to the north of the N52 roadway and to the M3 drainage network (ca. 400m section on east side of the project site).

The proposed project site is located within the Water Framework Directive (WFD) Blackwater Kells subcatchment (SC_030). There are no surface water features, such as rivers or streams within the footprint of the proposed project.

There is an unnamed stream ca. 200m northeast of the proposed footpath which is a tributary of the Toberultan Stream. This unnamed watercourse (Code: IE_EA_07T180970) and the Toberultan stream have an 'Unassigned' WFD status (2013-2018) and are detailed within EPA records as being 'At Risk' of not achieving favourable water quality status. The unnamed tributary flows under the M3 motorway junction (ca 200m northeast of the commencement of the footpath) and from this area connects to the Toberultan stream and subsequently flows in a general southeast direction for ca. 9km before out falling to the River Blackwater.

There are no Geological Heritage Areas within the project site. The closest Geological Heritage Area is Blackwater Valley (MH010) which is a river valley and outwash plain located ca. 4km north west of the site (GSI, 2021). There is no hydrological or hydrogeological link between the site and the Blackwater Valley.

Biodiversity

The proposed project site does not lie within any European site. There are no ecological corridors present, such as woodlands, within the proposed site which could provide direct connectivity to any European site.

There are 4no. European sites within the potential zone of influence of the proposed project. The closest European sites are found along the River Blackwater which is located ca. 2.7km north east of the proposed project site via land, ca. 9km downstream via watercourses. This river forms part of the River Boyne and River Blackwater Special Area of Conservation (SAC) (002299) and the River Boyne and River Blackwater Special Protection Area (SPA) (004232). Girley (Drewstown) Bog SAC (002203) is located ca. 4.4km south west of the proposed project and Killyconny Bog (Cloghbally) SAC (000006) is located ca. 8.9km north west of the proposed development.

Storm water / surface water drainage from the east side of the proposed scheme will drain to the N52 roadway drainage network which connects to the M3 motorway drainage network. The M3 storm water / surface water drainage network outfalls (via a tributary) to the Toberultan Stream which connects to the River Blackwater ca. 9km downstream of the project site. As such, there is potential indirect connectivity from the project site to the River Boyne and River Blackwater SAC (002299) and the River Boyne and River Blackwater SPA (004232) via storm water / surface water drainage from the proposed scheme when it is operational. Surface water drainage for the remainder of the project site currently drains to local field drains which connect to a wetland site; Calliaghstown wet grassland and marsh. The new drainage infrastructure proposed for the scheme will utilise the same outfall locations to the same local field drains.

The proposed project site does not lie within any Natural Heritage Area (NHA) or proposed Natural Heritage Area (pNHA). There are 2no. NHA within 15km of the proposed development. The closest NHA is Girley Bog NHA (Site code 001580) and is located ca. 4.4km south west from the proposed project and is not hydrologically linked to the proposed project site. There are 3no. pNHAs within 15km of the proposed project site. The closest pNHA is Killyconny Bog (Cloghbally) pNHA (Site code

000006) located ca. 8.9km north west from the proposed project and is not hydrologically linked to the proposed project.

There are no records of invasive species included on the Annex listed species identified within the site boundary from a review of Biodiversity Maps (National Biodiversity Data Centre, 2021).

There will be no land take from any of the designated sites within 15km of the proposed development 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.

Hydrogeology

There is 1no. Meath County Council well located within the proposed project (GSI Name - 2627SWW050), which is reportedly used for public supply and has a poor yield (8.7m3d) (GSI, 2021) (albeit the current use of this reported supply well will need to be confirmed with Meath County Council).

There are no reported Public Drinking Water Supply or Source Protection Zones within 2km of the proposed project site (GSI, 2021). The closest Public Drinking Water Supply or Source Protection Zone is the Athboy PWS located ca. 9.1km south of the proposed project (GSI, 2021). Taking into account the distance of this public water supply from the proposed project site there is no residual risk to regional potable supplies.

The proposed project is underlain by a poor aquifer bedrock which is generally unproductive except for local zones (GSI, 2021). Groundwater vulnerability beneath the northern portion of the proposed project is classified as '*moderate'* groundwater vulnerability rating and beneath the southern portion is classified as *'high'* groundwater vulnerability rating (GSI, 2021). There is a small area in the middle of the proposed project which is classified as *'rock at or near surface or karst'* and *'extreme'* groundwater vulnerability rating (GSI, 2021), indicating that groundwater is highly vulnerable to contamination in this area.

Geology

The proposed project is underlain by Calcareous red-mica greywacke of the Clontail Formation (GSI, 2021). The quaternary sediment underlining the proposed project is till derived from Lower Palaeozoic sandstones and shales and gravels derived from Lower Palaeozoic sandstones and shales (GSI, 2021).

There is no evidence of any karst features being present within the general vicinity of the proposed site. The closest karst feature is St. Keerans Well which is located ca. 4.6km north west of the proposed site (GSI, 2021).

There are no historic landslide events or designated landslide susceptibility issues in the vicinity of the proposed site (GSI, 2021).

Flooding

The site has been screened with regard to potential flood risk associated with both baseline conditions, and the proposed development. According to the relevant guidance document; 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' (DOEHLG, 2009), one of the guiding principles of flood risk assessment is that assessments should be '*proportionate to the risk scale, nature and location of the development'*. In the first instance flood risk identification is carried out; identification is the process for deciding whether a plan or project requires a flood risk assessment and is essentially a desk-based exercise based on existing information (DOEHLG, 2009). No historic flooding events are recorded within the vicinity of the proposed development (OPW, 2021). There is no pluvial, fluvial or coastal flooding in the vicinity of the proposed development (OPW, 2021)

Archaeology and Cultural Heritage

There are no National Inventory of Architectural Heritage sites within 500m of site. There is 1no. recorded National Monuments Services 'Sites and Monuments Records' (SMR) feature within 500m of the proposed site:

- Fosse (Reference Number: Me016-064----) is located ca. 378m south east of the proposed project and is described as: *'Situated on a low W-E spur. The cropmark of a circular enclosure (int. diam. c. 57m N-S; c. 52m E-W) defined by a single fosse (width c. 3-6m) is visible on Google Earth (18/06/2017; 02/07/2018).'* (Historic Environment Viewer, 2021).

This site is unlikely to be affected by the proposed project. The environmental sensitivity of geographical areas likely to be affected by the proposed development are evaluated further within Section 3.4.2 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 development does not lie within any European sites, nature reserves or existing/ proposed natural heritage areas (detailed in Section 3.2.1 of this report). There are 4no. European sites within 15km of the site. It is not anticipated that there will be a significant impact on these areas. The Screening for Appropriate Assessment concluded that *'the proposed N52 Road Safety Improvement Scheme either individually or cumulatively, poses no likely significant effects on any European sites in view of their conservation objectives. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment'.*

As outlined previously in Section 3.2.1 the proposed project is unlikely to have any significant effects during the construction phase on identified archaeological or architectural features within the vicinity of the proposed project site.

The only other relevant aspects of the environment (including human health), which could potentially be significantly affected by the proposed works 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 proposed project will mainly involve excavations to an anticipated maximum depth of 500mm bgl. GSI (2021) have reported a '*moderate'* groundwater vulnerability rating for the northern portion of the proposed development and *'high'* groundwater vulnerability rating for the southern portion of the site. There is a small area in the middle of the proposed development which is classified as *'karst'* and *'extreme'* groundwater vulnerability rating, indicating that the groundwater beneath this portion of the proposed development may be vulnerable to contamination. There is 1no. Meath County Council well reportedly used for public supply (GSI Name: 2627SWW050) within the proposed development. Further clarification should be obtained from Meath County Council in relation to the current use of this well, specifically if it is in use as a public drinking water supply. A door to door well survey should be carried out within 200m of the proposed scheme, to identify any well protection measures which may be required prior to any site enabling / construction works commencing. Due to the nature and scale of the project it is anticipated that the construction and operation of the proposed development will not have a significant impact on the well supply.

The proposed project site does not lie within any European site. Storm water / surface water drainage from the east side of the scheme will drain to the N52 roadway drainage network which connects to the M3 motorway drainage network. The M3 storm water / surface water drainage network outfalls (via a tributary) to the Toberultan Stream which connects to the River Blackwater ca. 9km downstream of the project site. As such, there is potential indirect connectivity from the project site to the River Boyne and River Blackwater SAC (002299) and the River Boyne and River Blackwater SPA (004232) via storm water / surface water drainage from the proposed scheme when it is operational. There are no ecological corridors present, such as woodlands, within the proposed site which could provide direct connectivity to any European site. Surface water drainage from the west side of the scheme will outfall to the same local field drains which are currently in use. No alterations to surface water flows or surface water quality are anticipated at existing outfall locations (M3 network and local field drains) when the proposed scheme is operational. Due to the nature and scale of the project it is anticipated that the construction and operation of the proposed development will not have a significant impact on the surface water quality of any watercourse. No impacts to either surface water quality or to the hydrological flows within local field drains are considered likely during usage of the 912m of footpath and traffic calming gateways. It is considered that neither the construction nor operation of the 912m footpath nor usage of the proposed road safety improvement scheme will lead to any changes to the hydrological or ecological status of the Calliaghstown wet grassland and marsh area.

The nearest potential dust sensitive receptor (dwelling) is adjacent to the proposed project. Dust may be generated during the construction phase. Construction will require the use of machinery such as dump trucks, loading shovels etc. and the presence of such machines may result in a temporary increase of noise and dust. The air quality at the proposed development 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 and operation of the proposed development will not have a significant 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). No works will be conducted during night-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.

It is expected that the scheme will commence upon receipt of development consent and it is estimated that the duration of the build will be approximately 6 months. There will be a slight increase in traffic during construction, but this will be a temporary. A traffic light 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 development may give rise to air, noise, water emissions and waste. However, the development 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'.*

The construction phase of the development may generate waste such as metals, construction and demolition waste, plastic wrapping, wooden pallets or soil arisings. Policy INF POL 61 of the Meath County Development Plan (2021-2027) seeks to:

> *"INF POL 61: To facilitate the implementation of National Waste legislation and National and Regional Waste Management Policy".*

Given the scale and nature of the proposed project any such waste is likely to be generated in very minor volumes. All waste will be removed on a regular basis and will be segregated before being recycled or disposed of by the Contractor to an appropriately licenced waste recovery or waste disposal facility in accordance with all relevant waste management legislation.

The operational phase of the project should be accompanied by an increase in pedestrian footfall 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)).

Natural resources in the area will be required to facilitate the development during construction and operation phase. The proposed project will require the removal of hedgerows and grass verges in front of residential premises to facilitate the installation of the footpath. The total size of private land required for the proposed development is 0.0588ha. The hedgerows and grass verge have a low ecological value. The project is not located within or in proximity to any designated European Sites.

The proposed project involves a maximum footpath excavation depth of 750mm bgl. All soil requiring disposal offsite will require testing against the EPA "Determining if Waste is Hazardous" criteria, and (EPA, 2018), and the waste acceptance criteria (WAC) for the receiving facilities before being moved offsite to an appropriate, licenced, permitted or registered facility.

Construction waste generation will be minimised during the proposed construction works, in accordance with Policy INF POL 61 of the Meath County Development Plan (2021-2027) (MCC, 2021). Engineering grade fill material (CL804 sub-base materials, binder material and surface dressing) will be imported to the site during the proposed works.

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 3.4 ('*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 3.4).

3.3. Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA[4]

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))

The proposed project is a Road Safety Improvement Scheme along the N52 at Calliaghstown, Co. Meath between the M3 Motorway/ N3 Type 2 Dual Carriageway/ N52 roundabout junction, extending approximately 1.7 km west towards Mullingar. Refer to Section 3.3.1 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 Council Planning Applications has been undertaken for applications submitted within the last 5 years in the vicinity of the proposed project (last reviewed 13/11/2021). Some of the granted applications have already been completed and of those which are not completed, most are generally of 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.

1no. project is committed development, which has not yet been built or is currently under construction. This development has been further evaluated for the potential of cumulative impacts and is presented in Table 3-1. It is considered unlikely that the granted development will act in combination with the proposed project to give rise to significant cumulative impacts on the receiving environment.

[4] Pursuant to Schedule 7 of the Planning and Development Regulations as amended 2001-2020

Table 3-1 - Committed Development in the vicinity of the proposed development

Planning Ref	Decision Date	App. Name	Location	Description	Assessment
KA191391	04/12/2019	Trevor & Conni Murray	Tall Trees, Calliaghstown, Kells, Co. Meath	4no. bedroom 2 storey dwelling (169.2sqm), a new entrance & a BAF sewage treatment system & percolation area and to remove the boundary hedge on the main N52 main Rd on the properties of both Con & Bernie Kavanagh and Dermot & Hannah Walsh also to maintain the hedge on the property of Margaret Smith at a low level to accommodate the required 90m sightlines and all ancillary site works.	Based on the location, scale and nature of this project, cumulative impacts associated with the proposed development on the receiving environment are unlikely.

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

There will be demolition works required for the proposed development, with the removal of existing boundary walls, fences lines and hedgerows in front of residential premises. 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))'.*

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

Refer to Section 3.3.3 under '*The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).*

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

Refer to Section 3.3.3 under '*The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).'*

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

Refer to Section 3.3.2 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 pollution and nuisance impacts associated with the proposed project. No significant impact from pollution or nuisance issues are likely to arise from the proposed project.

The construction phase of the project may generate waste such as metals, construction and demolition waste, plastic wrapping, wooden pallets or soil arisings or waste electrical. 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.

To facilitate the new path, the existing boundary walls and fence lines will be demolished, along with the removal of the hedgerow and the stripping back the top soil. Soils and existing hardstanding areas will be removed to accommodate the new path and all excavated materials will be removed to a licenced waste facility. The proposed project will involve the installation of ca. 250mm of pavement materials as follows; 150mm of CL804 sub-base materials, 60mm of binder material and 40mm of surface dressing. The works will also involve the installation of ducting below the path along the alignment of the pathway with total depth of excavations for ducting to be ca. 400-500mm below pathway level. The installation of ducting is part of the proposed design so as to accommodate future cables should they be required (i.e. future proofing for internet cables, lighting etc). The small sectioned nature of the asphalt pours being undertaken in a phased basis, combined with the edge retention around each section, reduces the potential for significant impact on the environment.

There is 1no. Meath County Council well reportedly used for public supply (GSI Name: 2627SWW050) within the proposed project site. Further clarification should be obtained from Meath County Council in relation to the current use of this well, specifically if it is in use as a public drinking water supply. A door to door well survey should be carried out within 200m of the proposed project, to identify any well protection measures which may be required prior to any site enabling / construction works commencing.

The nearest sensitive receptors (residential housing) are adjacent to and accessed of the road along which the proposed project will be aligned. 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 and road saws etc. and the presence of such machines may result in a temporary increase of noise. Noise barriers will be installed to minimise noise impact on sensitive receptors. 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 works will be carried out during daytime hours.

No significant impact from pollution or nuisance issues are likely to arise from the proposed project. There will be no additional pollution or nuisance issues from the operational stage of the proposed project.

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 no historic flooding events recorded within the vicinity of the proposed project (OPW, 2021). There is no pluvial, fluvial or coastal flooding in the vicinity of the proposed project site (OPW, 2021). There are 2no. Seveso Control of Major Accident Hazards (COMAH) establishments within 15km of the proposed project site as shown in Table 3-2.

Table 3-2 - Seveso Establishments Within 15km of the Site

Facility	Tier	Location	Distance from Site
Xtratherm Ltd	Lower	Liscarton Industrial Estate, Kells Road, Navan, Co. Meath	11.40 km
Boliden Tara Mines DAC	Upper	Knockumber Road, Navan, Co. Meath	13.30 km

Construction Stage

Due to the nature and scale of the works and control procedures to be implemented it is considered therefore, that the likely impact from accidents and disasters is not significant.

Operation Stage

There will be no additional risk of major accidents or disasters associated with the operational stage of the proposed project.

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

The risks to human health (for example, due to water contamination or air contamination (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). Refer to section 3.3.2 *Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).* There will be no risk to human health due to air pollution during the operational phase of the project.

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). 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). No significant impact on human health due to noise pollution is anticipated to occur during the operational phase of the project.

There are no reported public drinking water supplies within a 2km radius of the project (GSI, 2020). Due to the nature and scale of the project it is not anticipated to have a significant impact on groundwater. There is 1no. Meath County Council well reportedly used for public supply (GSI Name: 2627SWW050) within the proposed project site. Further clarification should be obtained from Meath County Council in relation to the current use of this well, specifically if it is in use as a public drinking water supply. A door to door well survey should be carried out within 200m of the proposed project, to identify any well protection measures which may be required prior to any site enabling / construction works commencing.

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 proposed project will be carried out on the N52 at Calliaghstown, Co. Meath between the M3 Motorway/ N3 Type 2 Dual Carriageway/ N52 roundabout junction. Under the Meath Development Plan 2020-2026 (Meath County Council (MCC), 2020) the area of the proposed development is zoned as '*RA – Rural Area'*.

The area surrounding the proposed project is also land use zoned as '*RA – Rural Area'*. The location of the proposed project has been detailed previously in Section 3.2.1 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 3.3.3 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

No significant impacts on wetlands or riparian areas are anticipated.

(ii) Coastal zones and the marine environment

The proposed project site is located ca. 43km east of the Irish Sea.

(iii) Mountain and forest areas

There are no mountain or forested area within 2km of the proposed project.

(iv) Nature reserves and parks

There are no nature reserves and parks within 15km of the proposed project site.

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

Refer to Section 3.3.3 under '*The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b))'*

It is considered that due to the nature and scale of the works there will be no significant impact on areas classified or protected under legislation from the proposed project.

(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

Water Quality

Bailieborough groundwater body (IE_EA_G_006) has '*good*' water quality status under the Water Framework Directive (WFD) for the 2013-2018 period and is *'not at risk'* of failing to achieve the relevant WFD objectives by 2027 (EPA, 2021). Due to the nature and scale of the works the proposed project is not likely to significantly impact groundwater quality.

There is an unnamed stream ca. 200m northeast of the proposed footpath which is a tributary of the Toberultan Stream. This unnamed watercourse (Code: IE_EA_07T180970) and the Toberultan stream have an 'Unassigned' WFD status (2013-2018) and are detailed within EPA records as being 'At Risk' of not achieving favourable water quality status (EPA, 2021).

Air 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.

Noise Quality

It is anticipated that during construction there may be an increase in noise volumes. The Contractor will be required to prepare a CEMP and implement standard construction control measures to minimise noise levels associated with construction works. 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 water quality, baseline air and noise from the proposed development.

(vii) Densely populated areas

Under the Meath Development Plan 2021-2027 (Meath County Council (MCC), 2021) the area of the proposed development is zoned as '*RA – Rural Area'*. Therefore, it is not a densely populated area.

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

Refer to 3.2.1 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)).'*

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 development.

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

The likely significant effects on the environment of proposed development 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 footprint of the proposed project (refer to Figure 3-1). 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 works (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 3.4.1 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 project (during the construction or operational phases). A project specific CEMP will be prepared by the appointed Contractor prior to the works commencing which will clearly set out all environmental control measures for the onsite management of any pollution / nuisance issues, which could arise during the construction phase.

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 the 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 (2001-2021), and EIA Planning and Development Regulations 2018 (Schedule 7), as presented within Section 3.4 of this screening report.

Based on the information provided within Section 3.1 and 3.2 of this report, and summarised below, it is considered that due to the size, nature, and characteristics of the proposed project, no significant effects on the receiving environment are expected; hence 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- 2021 (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 proposed project, 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.

Key findings are summarised as follows;

- Due to the limited nature of the works it is considered that there will be no 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 impact.
- Waste will be generated during the construction phase however this is not anticipated to have a significant effect.
- There will be no significant impact on the receiving biodiversity, surface water, groundwater or traffic environment.
- There will be no impact on recorded monuments or historic features.

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

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PART 8

EIA SCREENING PROCEDURE

Planning & Development Regulations 2001- 2022– Part 10

PA ref.: P8 / .....* **Date of Display:** ..... / ..... / 20.....*
(*to be completed and attached to file on date of display)

Proposing Department: Transportation Section
Responsible Officer: Paul McKown
Planning Case Officer:
Proposed Development: The proposed development will consist of:

- The provision of a footpath (approximately 950m long) primarily along the northside of the N52 from its junction with the Rhine road, L68355 to the existing footpath at the M3-N3-N52 roundabout at Townspark, Kells Co. Meath.
- Two number traffic calming gateways on the N52, at Barfordstown and Townspark.
- Safety improvement works to the junctions of the N52 and The Rhine road, L68355 and to the junction of the N52 and Boolies road, L68350.
- Drainage works comprising road gullies, underground pipelines (both new and upsizing existing)
- Public Lighting, Accommodation & fencing/boundary works, Relocation of utility poles
- Landscaping works and ancillary infrastructure works.

Site Location: Townspark, Calliaghstown, Lackmelch and Barfordstown, southwest of Kells, Co. Meath.

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1. (a) Is the development of a type set out in Part 1 of Schedule 5:

Yes ☐ No ☒

(b) If 'Yes', specify which Class and notify Responsible Officer of requirement to proceed to Article 117 scoping and/or Section 175 application to An Bord Pleanála, as necessary:

2. (a) Is the development of a type set out in Part 2 of Schedule 5:

Yes ☐ No ☒

(b) If 'Yes', specify which Class and notify Responsible Officer of requirement to proceed to Article 117 scoping and/or Section 175 application to An Bord Pleanála, as necessary:

[2] Notify Responsible Officer of requirement to provide an EIAR and proceed to Article 117 scoping and/or Section 175 application to An Bord Pleanála.

3. **(a) Is the development of a type set out in Part 2 of Schedule 5 which does not exceed a quantity, area or other limit specified in respect to the relevant class of development:**

Yes ☐ No ☒

(b) If 'Yes', specify which Class and proceed to Question 4:

---

[2] Notify Responsible Officer of requirement to provide an EIAR and proceed to Article 117 scoping and/or Section 175 application to An Bord Pleanála.

Sub-threshold Development – Preliminary Examination (Step 1)

4. Provide a preliminary examination of the proposed development in accordance with Article 120(1)(a) referencing its nature, size and location:

Examining the proposed development in accordance with Article120A Article 120(1)(a) referencing its nature, size and location, it is recommended that sub-threshold EIA screening is carried out.

Preliminary Conclusion

☐ **there is no real likelihood of significant effects on the environment arising from the proposed development, and an EIA is not required [Article 120(1)(b)(i)]**

☐ **there is significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the proposed development and the information specified in Schedule 7A is required for the purposes of a screening determination [Article 120(1)(b)(ii) – proceed to Q. 5]** [1]

☐ **there is a real likelihood of significant effects on the environment arising from the proposed development and an EIAR is required in respect of the development [Article 120(1)(b)(iii)]** [2]

Specify reason(s)

Signatures		Dated
1.	.....	..... / ..... / 20.....
2.	.....	..... / ..... / 20.....
3.	.....	..... / ..... / 20.....

[1] Notify Responsible Officer of requirement to provide Schedule 7A information.

[2] Notify Responsible Officer of requirement to provide an EIAR and proceed to Article 117 scoping and/or Section 175 application to An Bord Pleanála.

Sub-threshold Development – Screening Determination (Step 2)

5. Provide a screening determination of the proposed development in accordance with Article 120(1B) with reference to the criteria listed in Schedule 7 and the information submitted pursuant to Schedule 7A, where applicable:

☒ **See attached determination sheet**

Screening Determination

☒ **there is no real likelihood of significant effects on the environment arising from the proposed development and an EIA is not required [Article 120(1B)(i)]**

☐ **there is a real likelihood of significant effects on the environment arising from the proposed development and an EIAR is required in respect of the development [Article 120(1B)(ii)] [3]**

Specify reason(s)

Referring to EIA Screening report carried out by WS Atkins Ireland for the proposed development dated March 2022, specifically the conclusions and key findings which state:

"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."

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

Signatures		Dated
1.	.....	17 / 10 / 2022
2.	.....	17 / 10 / 2022
3.	.....	17 / 10 / 2022

[3] Notify Responsible Officer of requirement to provide an EIAR and proceed to Article 117 scoping and/or Section 175 application to An Bord Pleanála.

Appendix F – Ecological Impact Assessment Report

ATKINS

Member of the SNC-Lavalin Group

N52 Road Safety Improvement Scheme, Calliaghstown, Kells, County Meath

Ecological Impact Assessment Report

Meath County Council

February 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 N52 Road Safety Improvement Scheme at Calliaghstown, Kells, County Meath.

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

Revision	Purpose description	Origin-ated	Checked	Reviewed	Author-ised	Date
Rev 0	Draft for comment	BW/CW	CW	POD	MF	18/11/2021
Rev 1	For submission	BW/CW	CW	CW	MF	15/02/2022

Client signoff

Client	Meath County Council
Project	N52 Road Safety Improvement Scheme, Calliaghstown, Kells, County Meath
Job number	5203694
Client signature / date	

Contents

Tables

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1. Introduction

Atkins Ireland have been commissioned by Meath County Council to prepare an Ecological Impact Assessment (EcIA) Report for the construction and operation of a proposed Road Safety Improvement Scheme on the N52 National Secondary Road at the townlands of Calliaghstown, Townspark, Lackmelch and Barfordstown, south west of Kells, Co. Meath.

The proposed road safety improvement works comprise two 'gateways' located at Barfordstown and Calliaghstown close to the existing N52/M3 roundabout to reduce vehicular traffic speeds to posted 60km/hr speed limits; improvement works to the junctions of the N52 with Boolies Road (L68350) and The Rhine road (L68355); and approximately 950m of footpath primarily along the northside of the N52 at Calliaghstown.

1.1. Proposed Scope of Works

The proposed works will comprise of:

- Installation of traffic calming measures (gateways) on the N52 at Calliaghstown and Barfordstown;
- Junction Upgrade works to the junction of the N52 with Bolies Road local road (L68350) and to the junction of the N52 with the Rhine local road (L68355)
- Provision of a footpath and verges (approx. length 912m) from the existing path at M3/N3/N52 roundabout to the junction of the N52 with the Rhine local road (L68355);
- Drainage works comprising underground pipelines (both new and upsizing existing), attenuation and discharge to existing M3 Motorway drainage system, Calliaghstown Wetland (upsizing existing outfall) and to un-named field drain (both new and existing outfalls).
- And associated minor road realignment, excavation and reinstatement, kerbing, accommodation works, realignment of boundary walls, fences and gates, landscaping works, public lighting, ducting, road marking, road signage, road surfacing, utility poles and overhead wire relocation/alteration, drainage/attenuation works and ancillary infrastructure works.

The total length of project site is ca. 1,700m and works outside of the above include for some minor fence alterations and new road signage prior to and after the footpath along the N52 roadway for speed restriction purposes.

Construction activities will include the removal of some existing boundary walls, fence lines and / or hedgerows in front of residential premises to facilitate the installation of the footpath. The installation of the footpath will also necessitate the removal and realignment of some existing signage and poles in certain locations (e.g. Eircom Poles).

The construction makeup of the path will involve the installation of ca. 250mm of pavement materials as follows; 150mm of CL804 sub-base materials, 60mm of binder material and 40mm of surface dressing. The works will also involve the installation of ducting below the path along the alignment of the pathway with total depth of excavations for ducting to be ca. 400-500mm below pathway level. The installation of ducting is part of the proposed design so as to accommodate future cables should they be required (i.e. future proofing for internet cables, lighting etc).

Works will also involve the installation of a roadside kerb along the eastbound laneway and also the formation of a grass verge separating the roadway kerb from the pedestrian pathway where space is available. The total depth of excavations for kerb and verge works is ca. 250mm below road surface levels. Property walls, fences and / or hedgerow will be reinstated in their new (set back) location with ca. 0.5m of grass verge to be installed to provide separation of the footpath from the residential boundaries.

Storm water / surface water drainage for the proposed footpath will predominantly be to ground, to local field drains and / or will be to the existing drainage infrastructure in local roadway (N52, L68355 M3 roadways). Drainage of storm water / surface water run-off for the proposed scheme is summarised as follows: -

- East side of scheme (ca. 400m in length) will drain to existing N52 road drainage network which connects to M3 drainage network. The M3 drainage infrastructure outfalls to the Toberultan Stream.
- Mid-section of scheme (ca. 700m in length) will drain to agricultural lands field drains located directly north of proposed footpath / scheme.
- West side of scheme (ca. 600m in length) which will remain as existing drain to adjacent verge and to existing road drainage network on local roadway (L68355) which outfalls to local field drains north of proposed footpath / scheme.

Plan and cross section design of the proposed footpath along the N52 roadway is illustrated in Figure 1-1 below.

The location and alignment of the proposed pedestrian path is illustrated in Figure 1- 2 below and is further detailed in design drawings in Appendix A.

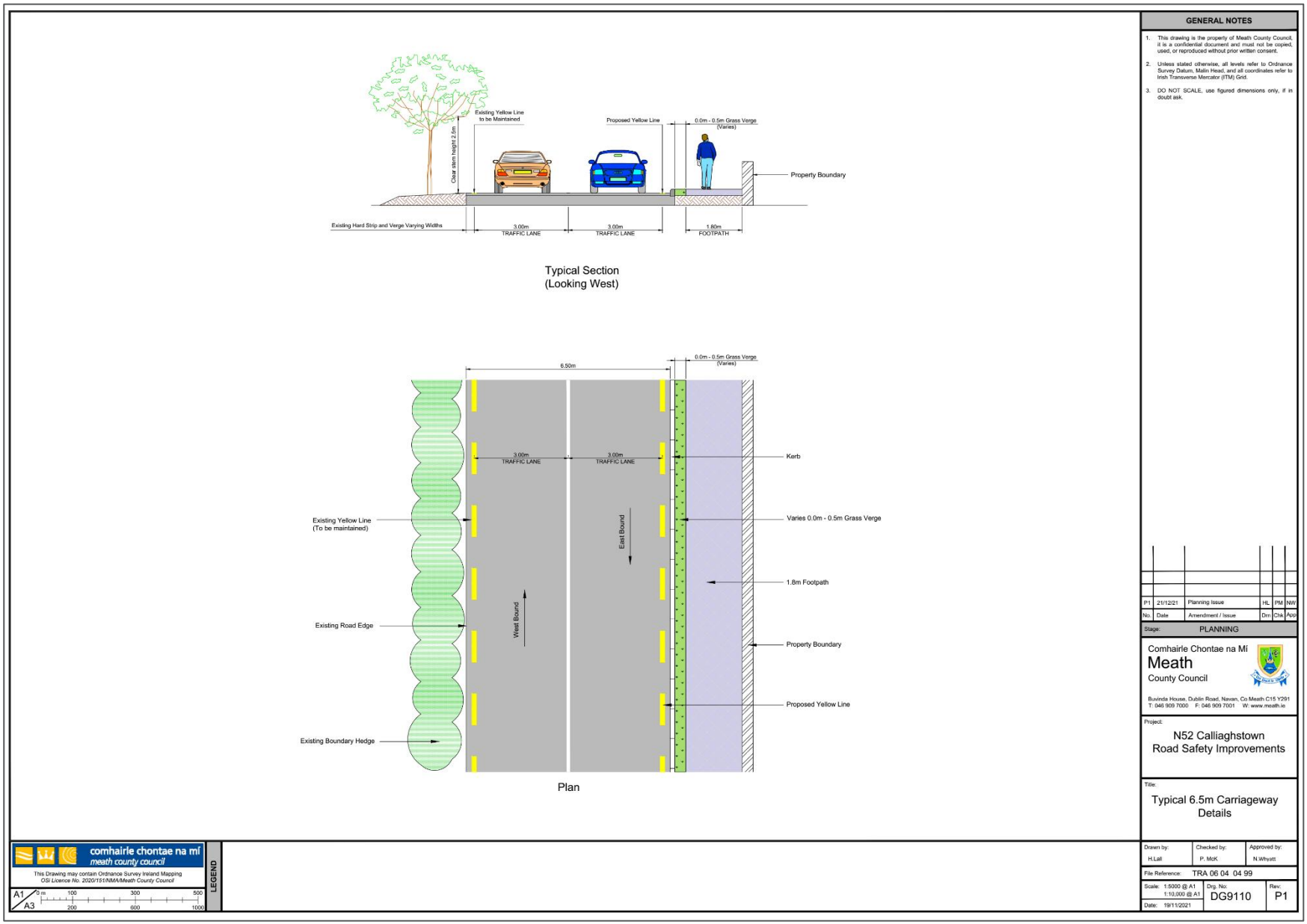


Figure 1-1 Plan and Cross Section illustration of footpath configuration.

Figure 1-2 Location of proposed Road Safety Improvement Works on N52, southwest of Kells.

2. Methodology

The ecological assessment of the proposed scheme followed methodologies including, but not limited to the following: -

- National Roads Authority (2009). Guidelines for Assessment of Ecological Impacts of National Roads Schemes.
- Environmental Protection Agency (EPA) (2017). Guidelines on the Information to be contained in Environmental Impact Assessment Reports. (Draft, August 2017).
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine.
- National Roads Authority. Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes.
- A Guide to Habitats in Ireland. The Heritage Council. The Heritage Council (Fossitt, 2000);
- Best Practice Guidance for Habitat Survey and Mapping. The Heritage Council, Church Lane, Kilkenny, Ireland (Smith, G., O'Donoghue, P., O'Hora, K. & Delaney, E. 2011);
- Foulkes, N., Fuller, J., Little, D., McCourt, S. and Murphy, P. (2013). Hedgerow Appraisal System - Best Practise Guidance on Hedgerow Survey, Data Collation and Appraisal. Woodlands of Ireland, Dublin. Unpublished Report.

2.1. Desk Study

A desk study was carried out to collate available existing information on habitats and species of ecological value within and surrounding the proposed scheme. Ecology reports, sourced from National Parks and Wildlife Service and Meath County Council, were also reviewed as part of the desktop exercise. The ecological information was collated with the aim of providing a comprehensive evaluation of baseline ecological conditions found within the scheme study area and was used to undertake an evaluation of the likely impacts the proposed scheme will have on biodiversity.

Sites designated for nature conservation were examined within 15km of the proposed scheme. Sites considered included both internationally (European sites, Ramsar sites) and nationally designated conservation areas (National Heritage Areas, proposed National Heritage Areas, Nature Reserves).

The Natura 2000 network (European sites) is comprised of both Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) for birds; these sites are designated for the protection of biodiversity across the European Union. SACs are designated under the EU Habitats Directive (92/43/EEC), as transcribed into Irish law by the European Communities (Birds and Natural Habitats) Regulations, 2011, while SPAs are designated under the EU Birds Directive (79/4089/EEC; and as amended 2009/147/EC). SACs are sites of international importance due to the presence of Annex I habitats and/or Annex II species listed under the EU Habitats Directive (92/43/EEC). SPAs are designated for the protection of bird species listed on Annex I of the Bird Directive (2009/147/EC), regularly occurring populations of migratory species and areas of international importance for migratory birds. Ramsar sites are wetland sites designated to be of international importance under the Ramsar Convention an intergovernmental environmental treaty established by UNESCO. A Natural Heritage Area (NHA) is the basic designation for wildlife under the Wildlife Amendment Act (2000). NHA sites are selected by having special scientific significance for one or more species, communities, habitats, landforms or geological features, or for a variety of natural attributes. A Nature Reserve is an area of importance to wildlife, which is protected under Ministerial order and sites are established under section 15 of the Wildlife Act 1976.

The inland surface waters (e.g. rivers, streams and lakes) within close proximity to the proposed scheme, or which receive drainage from the proposed scheme, were reviewed. Where information was available waterbodies were assessed in relation to their fisheries value, biological status, water quality and designation status. Relevant

waterbodies within the study area were identified through the EPA online Map Viewer facility1. Available records of protected aquatic species, designation status and water quality for these water features were reviewed.

The desk-based study also reviewed available information on any known or potentially important sites for rare or protected flora or fauna known to occur along or within the zone(s) of influence of the proposed scheme. Available information on any other sites of ecological value, that are not nationally or internationally designated, found within or in close proximity to the proposed road safety improvement scheme were also reviewed.

The locations of conservation sites, protected species occurrences and areas of ecological interest were reviewed using Google maps / Google StreetView2 and Bing maps3. Sources of data used to collate and compile information of ecological features of interest and importance for the study include: -

- National Parks and Wildlife Service (NPWS)
    - Information on sites designated for nature conservation, including spatial data.
    - Habitats and species data
    - Wildfowl Sanctuaries
- National Biodiversity Data Centre (NBDC)
    - Protected species records
    - Invasive species records
- Environmental Protection Agency
    - Watercourses and lake spatial files
    - Water quality data
    - Corine land cover data
- Geological Survey of Ireland
    - Underlying geology, soils and hydrogeology
- Ordnance Survey Ireland
    - Historic mapping
- Birdwatch Ireland
    - Bird count data from the Irish Wetland Bird Survey (IWeBS)
- Wetland Survey Ireland
    - Information on identified wetland habitats within the study area.
- OPW Wildlife Service Report (1990)
    - Wildlife Sanctuaries
- Irish Peatland Conservation Trust
- National Heritage Plan
- Ramsar sites information service.
- Teagasc
    - Ireland Peatland Maps.

[1] https://gis.epa.ie/EPAMaps/
[2] https://www.google.ie/maps
[3] http://www.bing.com/maps/

2.2. Zone of Influence of the Proposed Scheme

The zone of influence is the area over which ecological features may be subject to significant effects as a result of the proposed scheme and associated activities. This is likely to extend beyond the footprint of the new pathway. The zone of influence can vary for different ecological features depending on their sensitivity to environmental change (CIEEM, 2018). Ecological resources or features of conservation value within the zone of influence of the proposed scheme may be subject to impacts as a result of their direct or indirect connectivity to the proposed scheme. Direct connectivity refers to ecological features found within or partly within the scheme study area. These features may be directly impacted by the proposed scheme, e.g. through habitat loss. Indirect connectivity refers to sites outside of the scheme study area but connected through features such as linear habitats (i.e. wildlife corridors) or surface water pathways. Indirect impacts may include deterioration of water quality or air quality, increase in noise or the severing of linear corridors used by wildlife to move between sites.

For the purposes of this assessment, direct impacts such as loss of habitat and direct mortalities of species were confined to ecological resources contained within proposed project boundary. For the consideration of indirect impacts, such as impacts to water quality or disturbance of species, the zone of influence was extended to 15km to incorporate the presence of European and nationally designated sites, as the zone of influence will vary for different ecological features depending on their sensitivity to environmental change (CIEEM, 2018). This 15km distance is derived from UK guidance (Scott Wilson *et al*., 2006).

2.3. Site Visits

Following the desk-based review of available information on the habitats and species of conservation value found within the zone of influence of the proposed scheme, the site was visited 29th September 2021. The aim of this site visit was to view the ecological features of interest first hand, determine the likely interaction that the proposed scheme may have on these habitats and to undertake a preliminary assessment of the potential impact the proposed scheme may have on the identified habitats. The project site was also assessed for the presence of protected species and for habitats suitable for protected species refugia (e.g. nesting habitat, badger setts, bat roosts). The site was also inspected for the presence of high impact invasive plant species such as Japanese knotweed (*Fallopia japonica*).

Habitats are classified in line with the Heritage Council Classification scheme (Fossitt, 2000). Dominant plant species in each habitat type were recorded. Plant nomenclature follows the Botanical Society of Britain and Ireland's List of Accepted Plant Names (Botanical Society of Britain and Ireland, 2019).

2.4. Valuing Ecological Importance

Ecological features can be important for a variety of reasons. Importance may relate, for example, to the quality or extent of the site or habitats found within, or the rarity of the habitat and / or species, the extent to which such habitats and / or species are threatened throughout their range, or to their rate of decline.

The importance of an ecological feature was considered within a defined geographical context. The frame of reference used to determine ecological value relied on known and published accounts of the feature's ecological importance, rarity and distribution combined with professional judgement.

The following geographic frame of reference was used for evaluating the importance of ecological features within the study area: -

- International importance
- National importance
- County importance
- Local importance (higher value)
- Local importance (lower value)

The geographical context for determining the value of ecological receptors followed recommendations as outlined in the Guidelines for Assessment of Ecological Impacts of National Roads Scheme, National Roads Authority (2009).

3. Existing Environment

The following section outlines the baseline ecological conditions found within and around proposed scheme. Details of protected sites, habitats, features, flora and fauna that are within the zone of influence of the proposed scheme are listed. Details of the land use and the environmental landscape within the study area are also outlined following a review of aerial photography and Corrine Land Cover datasets[4].

Meath County Development Plan 2013-2019[5] describes the natural heritage of County Meath as follows: -

> *'Meath's natural heritage includes scenic river valleys, rolling farmland, a network of mature hedgerows and diverse coastal habitats.'*

A review of aerial photography and Corrine land cover information identifies the proposed scheme as being within 'Agricultural Areas'. These lands are primarily made up of improved agricultural grasslands used for pasture and arable lands. Built areas with the study area include private residences which are mainly adjacent to roads and farm buildings.

The agricultural grassland and built lands habitats are considered to be of low ecological value in accordance with the NRA (2009) Guidelines for Assessment of Ecological Impacts of National Road Schemes. The treelines and hedgerows bordering the agricultural grassland field are of more ecological value and for the study area, where possible, these hedgerows were reviewed at vantage points during site surveys with the aim to assess their ecological value.

3.1. Sites Designated for Nature Conservation

There are 4 no. sites of international importance which are designated for protection and there are 5no. sites which are of national importance within 15km of the study area of the proposed scheme. These designated sites are outlined in greater detail in the following sections of this report.

3.1.1. International Importance – European Sites

Of international importance: there are a total of 4 no. European sites identified to be within 15km of the proposed scheme; 3 no. Special Areas of Conservation (SACs) and 1 no. Special Protection Area for birds (SPA). Details of the European sites including the qualifying interests for which they are designated are provided below in Table 3.1. The European sites in the environs of the proposed scheme are illustrated below in Figures 3.1 & 3.2.

The ecological features for which these sites have been designated were examined and the distances between the sites and the proposed scheme were measured. Potential connectivity between the European sites listed in Table 2.1 below and the proposed roadway scheme was assessed through both potential direct and indirect connectivity.

There are no SACs within the site of the proposed scheme. There are no SPAs within the site of the proposed scheme.

Storm water / surface water drainage from the east side of the proposed footpath will drain to the adjacent N52 roadway drainage network which connects to the M3 motorway drainage network. The M3 storm water / surface water drainage network outfalls (via a tributary) to the Toberultan Stream which connects to the River Blackwater ca. 9km downstream of the project site. As such, there is potential indirect connectivity from the project site to the River Boyne and River Blackwater SAC (002299) and the River Boyne and River Blackwater SPA (004232) via storm water / surface water drainage from the east side of the proposed scheme when it is operational.

[4] http://www.epa.ie/soilandbiodiversity/soils/land/corine/

[5] https://meathcountydevelopmentplan.files.wordpress.com/2011/01/meath-county-development-plan-2013-2019-consolidated-version-written-statement-december-2016.pdf

Table 3.1 European sites within 15km of the proposed scheme.

European sites - Special Areas of Conservation (SACs)			
Site Name (Site Code)	Distance from Study Area	Features of Interest	Connectivity to proposed scheme
River Boyne and River Blackwater SAC (002299)	ca. 2.7km north east via land, ca. 9km downstream via watercourses	• Alkaline fens [7230] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Lampetra fluviatilis* (River Lamprey) [1099] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355]	Potential indirect connectivity exists between the project site and this SAC via the scheme's storm / surface water drainage which (from the east side of the proposed scheme) will outfall via a tributary to the Toberultan Stream which outfalls ca. 9km downstream to this European site.
Girley Bog SAC (002203	ca. 4.4km south west	• Degraded raised bogs still capable of natural regeneration [7120]	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Killyconny Bog SAC (000006)	ca. 8.9km north west	• Active raised bogs [7110] • Degraded raised bogs still capable of natural regeneration [7120]	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Natura 2000 Sites - Special Protection Areas (SPAs)			
River Boyne and River Blackwater SPA (004232)	ca. 2.8km north east via land, ca. 9km downstream via watercourses	• Kingfisher (*Alcedo atthis*) [A229]	Potential indirect connectivity exists between the project site and this SPA via the scheme's storm / surface water drainage which (from the east side of the proposed scheme) will outfall via a tributary to the Toberultan Stream which outfalls ca. 9km downstream to this European site.

Figure 3.1 SACs within 15km of the project site location.

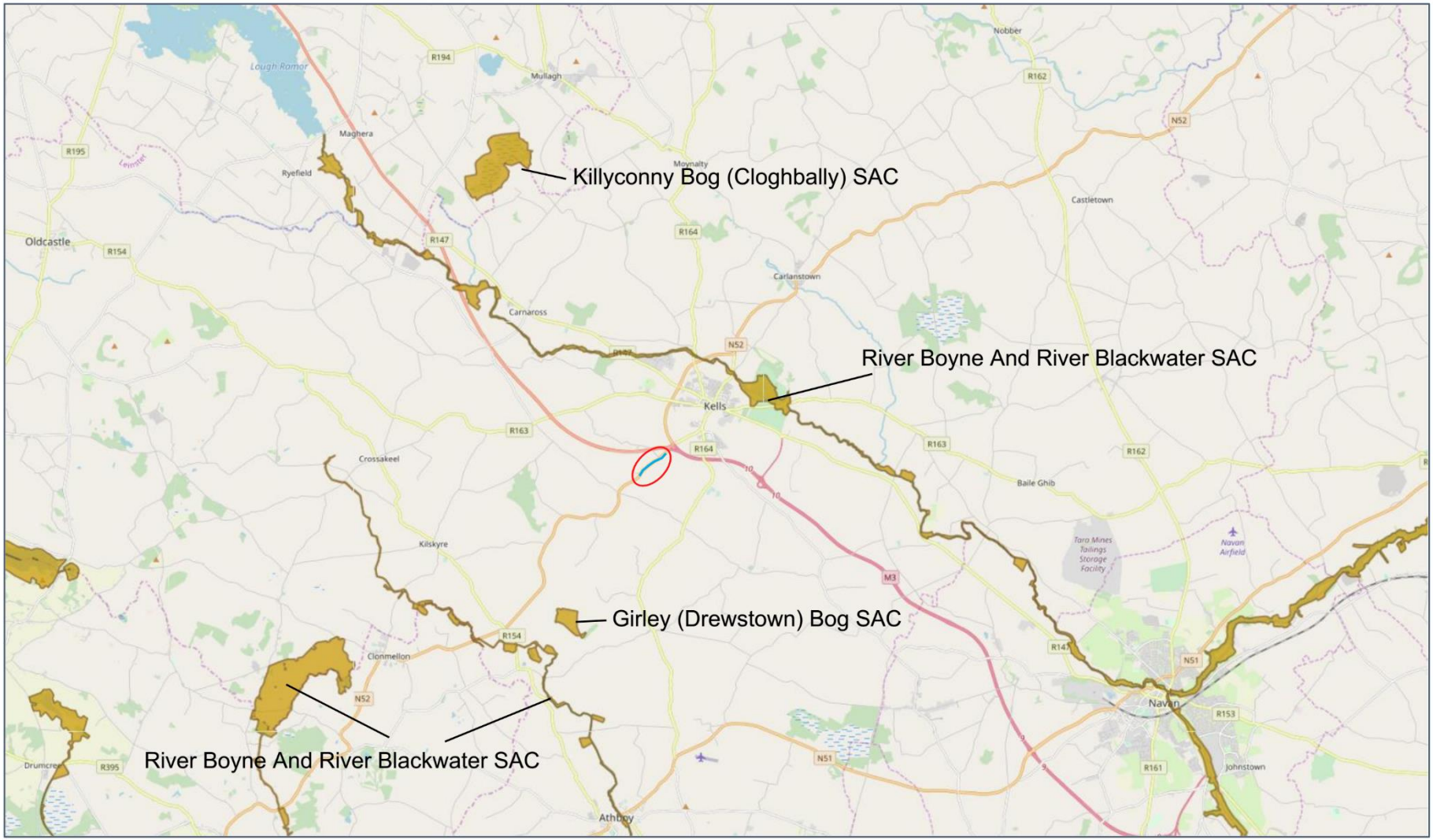
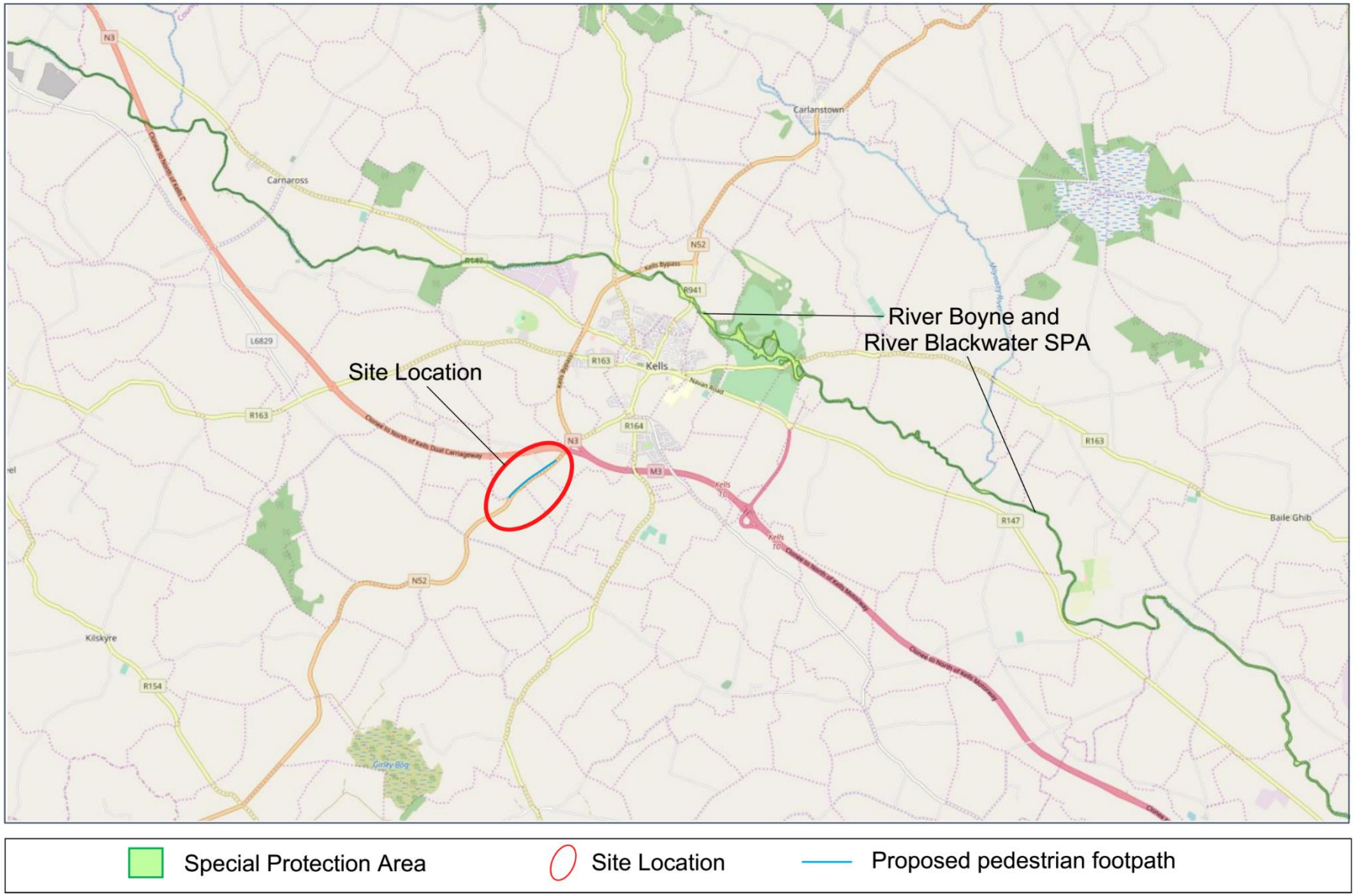


Figure 3.2 SPAs within 15km of the project site location.



3.1.2. International Importance – Ramsar Sites

A Ramsar Site is a wetland site designated to be of international importance under the Ramsar Convention, an intergovernmental environmental treaty established in 1971 by UNESCO. It provides for national action and international cooperation regarding the conservation of wetlands, and wise sustainable use of their resources.

Lough Derravaragh is the closest Ramsar site to the study located area ca. 29.7km west. The site was identified as a Ramsar Convention Site in 1996 (Ramsar Site no. 847; 1,120 ha). The Site is a wetland of international importance as a raised or cutaway bog with a shallow, alkaline lake and extensive reedbeds and swamps. Vegetation includes various aquatic plants dominated by reeds and sedges, several of which have a restricted distribution in Ireland, and deciduous woodland composed of native species. The site supports nationally important numbers of several species of waterbirds and provides valuable habitat for otter.

There is no indirect connectively from the proposed scheme to Lough Derravaragh Ramsar site.

3.1.3. International Importance – Annex I Habitats

The Habitat Directive[6] lists the specific habitat types (and species) which have been designated for conservation by EU member states within the Natura 2000 network (European sites). There are over 200 habitat types listed within Annex I of the Habitats Directive which are legally protected under the directive.

Under Article 11 of the Habitats Directive EU member states are obliged to monitor the conservation status of annexed habitats (and species). The monitoring requirements obliged to be undertaken by member states is not restricted to European sites / Natura 2000 sites (SACs and SPAs) but encompasses the total national resource of each habitat i.e. Annex 1 habitats outside of SACs as well as those within SACs. Consequently, data on Annex I habitat must be collected both within and outside the Natura 2000 network and under Article 17 of the Habitats Directive EU member states are obliged to report to the EU commission every six years on the implementation of measures taken towards meeting the objectives of the directive.

In 2019 Ireland submitted to the EU Commission an Article 17 report on the assessment of the status of Annex 1 habitats (and species) that Ireland is required to protect under the EU Habitats Directive. A review of recently National Parks and Wildlife Service[7] published (2020) Article 17 datasets show the locations of the following habitat types: - Bogs, mires and fens; coastal habitats; dunes habitats; forests; freshwater habitats; grasslands; heath and scrub; rocky habitats; sclerophyllous scrubs.

None of these habitats are located within 2km of the proposed footpath.

3.1.4. National Importance – National Heritage Areas

Of national importance; there are 2 no. Natural Heritage Areas (NHAs) and 3 no. proposed Natural Heritage Areas (pNHAs) within 15km of the proposed scheme. Details of the sites including a synopsis of each site is provided in Table 3-2 below. Nationally important sites within 15km of the proposed scheme are illustrated below in Figure 3.3.

The site synopsis, where available, for each site was reviewed and summarised. The distances between each site and the proposed scheme were also measured and the potential connectivity between them assessed.

[6] formally known as Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora

[7] https://www.npws.ie/maps-and-data/habitat-and-species-data/article-17/habitats/bogs-mires-and-fens

Table 3.2 Nationally important conservation sites within 15km of the proposed scheme.

National Heritage Areas (NHAs)			
Site Name / Code	Distance from Scheme[8]	Site Synopsis[9]	Connectivity
Girley Bog NHA 001580	3.3km south	The site comprises a raised bog that includes both areas of high bog and cutover bog and is bounded in parts by coniferous forestry to the south and north. The site is partially divided by a large drain that runs across the high bog. There is an area of hummocks and pools in the southern half of the high bog, although parts of the south-west have been afforested. Cutover is found all around this site and in the north-west and southwest the cutover has been utilised for forestry. Much of the high bog has vegetation typical of a Midland Raised Bog. Girley Bog NHA is a site of considerable conservation significance comprising as it does a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This site supports a good diversity of raised bog microhabitats, including hummocks and pools. This site is one of the few remaining raised bogs in County Meath and represents the eastern extreme of the range of raised bogs in the country. Ireland has a high proportion of the total E.U. resource of this habitat type (over 50%) and so has a special responsibility for its conservation at an international level.	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Jamestown Bog NHA 001324	7.7km	The site comprises a raised bog that includes both areas of high bog and cutover bog. The site is bounded on all sides by coniferous forestry and old cutover. The raised bog consists of two flat, elongated lobes, separated by areas of cutover bog and coniferous forestry. The eastern lobe is the largest and contains areas which are quaking, with small, infilling pools and also some dry hummocks. There are large areas of both abandoned and active cutting around the high bog, along with areas of coniferous forestry. There are a number of tracks in the site. This raised bog is of particular interest as it is one of the most north-eastern of the remaining raised bogs in the country, and one of only two raised bogs in County Meath. Jamestown Bog NHA is a site of considerable conservation significance comprising as it does a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Its location makes it especially important as it is representative of the north-eastern extreme of the geographic range of raised bogs in Ireland. Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level.	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.

[8] Distance measured in a straight line from closest point.

[9] Site synopsis summarised from information received from National Parks and Wildlife Service.

Proposed National Heritage Areas (pNHAs)			
Site Name / Code	Distance from Scheme[10]	Site Synopsis[11]	Connectivity
Lough Shesk (000556)	9.5km south west	This lough forms part of River Boyne and River Blackwater SAC	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Killyconny Bog (000006)	8.8km north	Designated for the same features as Killyconny Bog SAC	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Lough Ramor (000008)	13km north west	Lough Ramor lies in a hollow in the Silurian strata that cover most of eastern Cavan. It is a very shallow lake with a pH of about 7.5 and a maximum depth of 6m. The water is nutritionally poor but suffers periodic enrichment, resulting in algal blooms. Being situated on a different rock type than the other Cavan lakes it differs also in appearance. Much of the shore has semi-natural woodland of Alder (*Alnus glutinosa*), willows (*Salix* spp.) and Hazel (*Corylus avellana*), those stands near Virginia being originally planted. The islands are mostly covered by willows and in more open places Black-headed Gulls nest. Mallard, Teal and Red-breasted Merganser breed on the island while Great Crested Grebe largely use the mainland shores of the lake. Freshwater marshes exist in many places around the shore but extensive reedbeds stretching out into the lake are rare. The margins of the marshes are mostly sedge dominated by such species as Bottle Sedge (*Carex rostrata*), Bladder-sedge (*C. vesicaria*), Tufted-sedge (*C. elata*), Common Sedge (*C. nigra*) and occasionally Water Sedge (*C. aquatilis*). Stretches of the shore with muddy or stony substrates provide niches for Trifid Burmarigold (*Bidens tripartita*) and the scarce Tasteless Water-pepper (*Persicaria mitis*) and Small Water-pepper (*Persicaria minor*). The lake supports nationally important numbers of Cormorant (average maximum of 201) and notable concentrations of Whooper Swan, Wigeon, Teal, Mallard and Lapwing. Snipe, Lapwing and Curlew also nest in the fringing marshes. The plant communities along the lake margins are of note and, combined with the over-wintering bird numbers, make Lough Ramor an important wetland site.	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.

[10] Distance measured in a straight line from closest point.

[11] Site synopsis summarised from information received from National Parks and Wildlife Service.

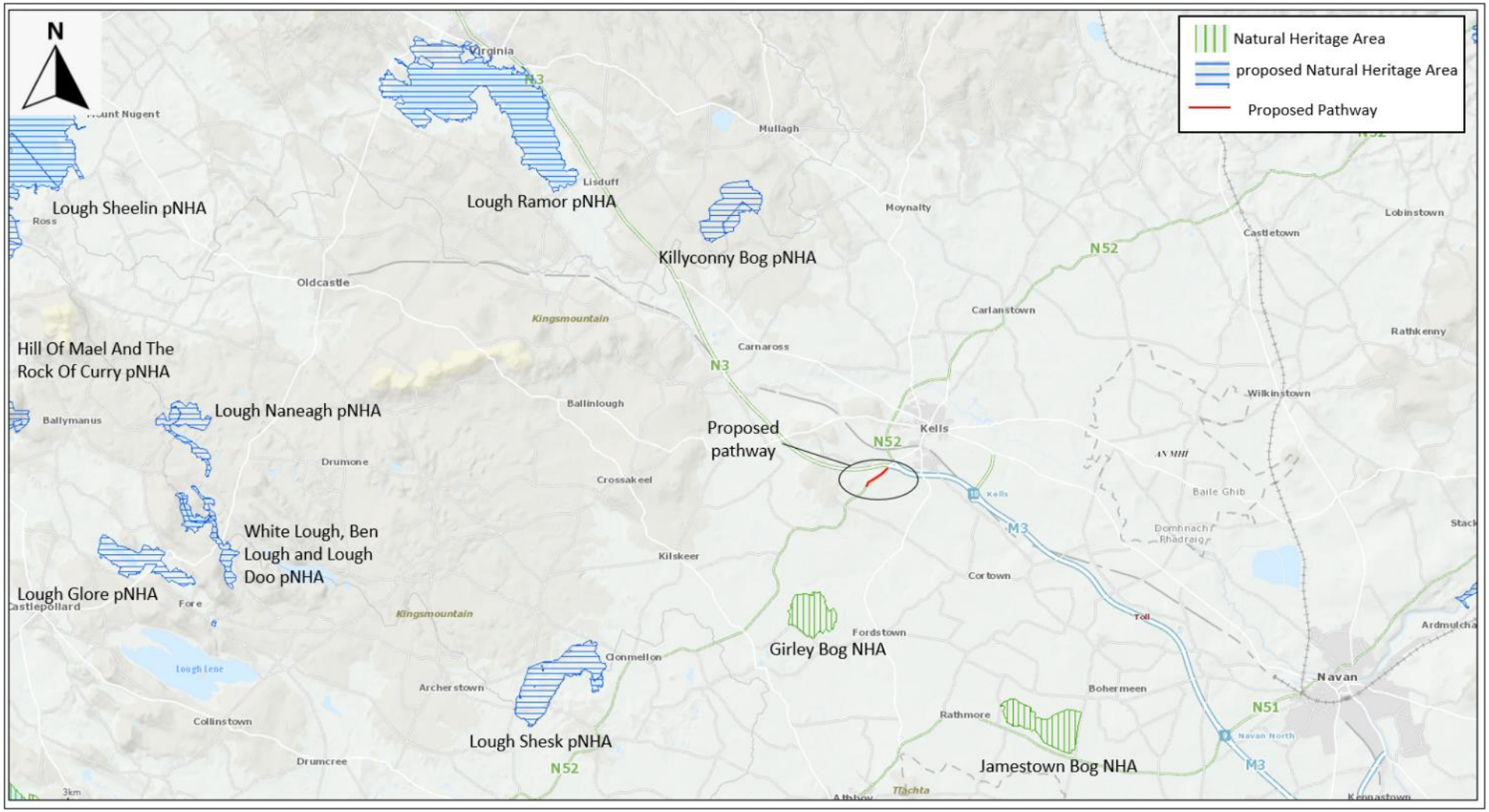


Figure 3.3 National Heritage Areas & proposed National Heritage Areas.

3.1.5. National Importance – National Parks, Nature Reserves & Wildlife Sanctuaries

There are no National Parks or Nature Reserves within the proposed scheme or within 15km of the proposed scheme. The closest Nature Reserve is Scargh Bog and is located 32.5km south west of the proposed footpath.

3.2. Other Known Sites of Ecological Value

There are sites and habitats outside of those designated above which are protected and / or of ecological value which may be impacted by the proposed scheme. Wetland and woodland habitats within the proposed scheme are discussed in greater detail below. Similarly, surface water features within the proposed scheme, such as rivers and streams, are also detailed in this section of the report.

The predominant habitat types present within the footprint of the scheme, as well as within the lands directly adjacent (ca. 50m) to the proposed scheme, are presented below. Details on the habitats present and adjacent to the proposed scheme are informed through desk-based research as well as by site surveys undertaken in September 2021. Habitats were categorized and photographed, and particular attention was paid to the primary habitats and land take to be directly affected by the proposed scheme. The walkover survey also included search for evidence of the presence of, and the potential of each habitat to support, priority and protected species as recommended by CIEEM[12].

3.2.1. Woodland Habitat

Datasets from the National Survey of Native Woodlands[13] (NSNW) 2003-2008 were reviewed to identify any native woodland habitat (other than wet woodlands) intersected by, or in close proximity to the proposed scheme. The NSNW does not identify any native woodlands within the footprint or within 5km of the proposed scheme. The Ancient and Long-Established Woodland Inventory of Ireland 2010[14] was also reviewed with no woodland habitat being identified within 5km of the proposed scheme from this inventory.

A review of the National Biodiversity Data Centre's (NBDC) forestry datasets show 4 no. areas of forestry, 3 no. of which are identified as 'Mature Spruce' located ca. 350m east, ca. 600m south, and ca. 760m south west. One area of forestry is unidentified and is located ca. 760m south east.

3.2.2. Freshwater Habitats

Water features within the study were examined through a review of the Environmental Protection Agency (EPA) spatial data and water quality records[15], a review of aerial imagery and following site walkovers.

EPA datasets do not identify any loughs, rivers or lakes within the proposed scheme.

There is an unnamed stream ca. 200m northeast of the proposed footpath which is a tributary of the Toberultan Stream. This unnamed watercourse (Code: IE_EA_07T180970) and the Toberultan stream have an '*Unassigned*' WFD status (2013-2018) and are detailed within EPA records as being '*At Risk*' of not achieving favourable water quality status. The unnamed tributary flows under the M3 motorway junction (ca 200m northeast of the commencement of the footpath) and from this area connects to the Toberultan stream and subsequently flows in a general southeast direction for ca. 9km before outfalling to the River Blackwater.

The River Blackwater is located ca. 2.7km north. The Environmental Protection Agency (EPA) records indicate the River Blackwater as having '*Moderate* water quality (2013-2018) and consider the watercourse as being at '*Risk*' of not achieving a favourable water quality status. Watercourses in context with the proposed scheme are illustrated in Figure 2.4 below.

[12] Chartered Institute of Ecology and Environmental Management (2017) Guidelines for Preliminary Ecological Appraisal, Second Edition.
[13] https://maps.biodiversityireland.ie/Map
[14] https://maps.biodiversityireland.ie/Map
[15] https://gis.epa.ie/EPAMaps/

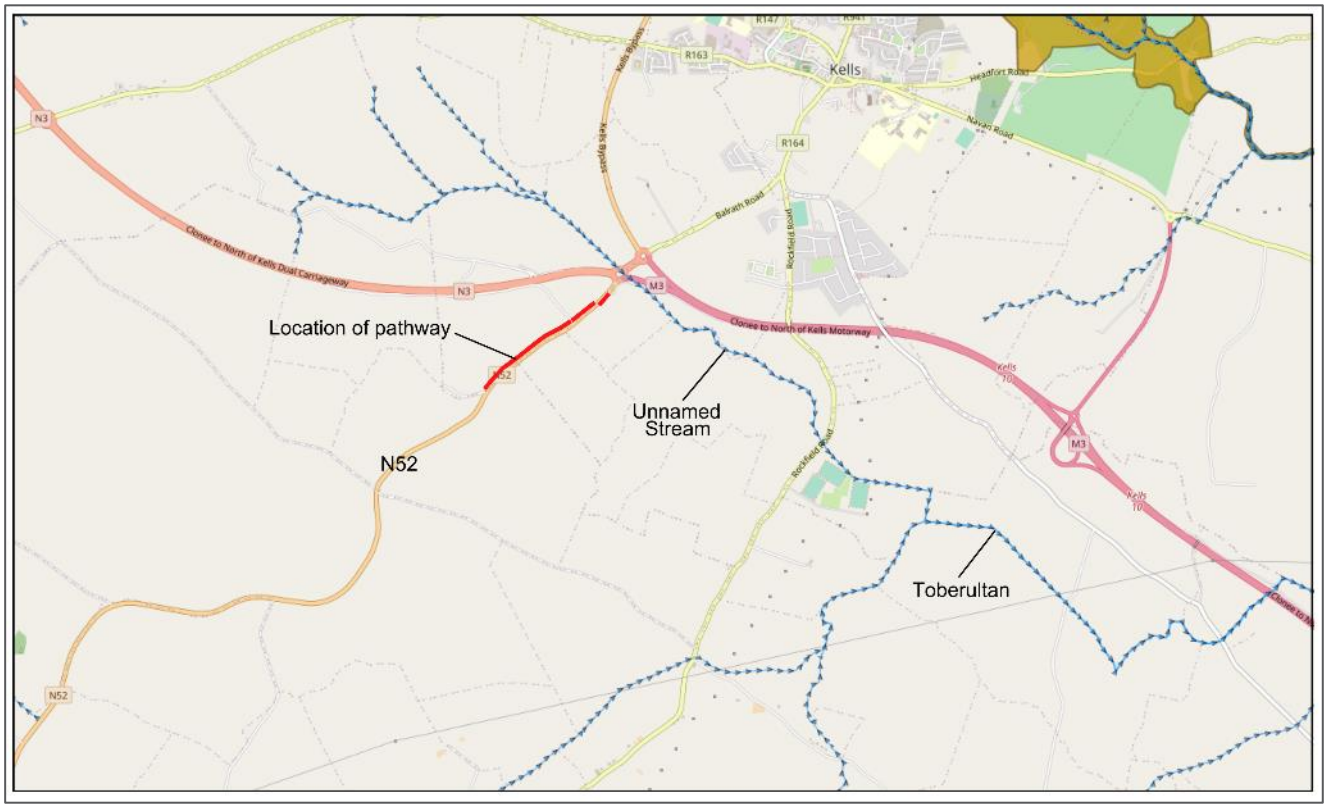


Figure 3.4 Watercourses within the vicinity of the proposed scheme.

3.2.3. Wetland Habitats

A review of the Irish Wetlands Survey database[16] show 8 no. wetlands within 2km of the proposed footpath. Wetland Survey Ireland (WSI) describes the type of wetland and also assigns an ecological value/importance to the site, as detailed in Table 3.3 below. The distances between each wetland site and the proposed scheme were also measured and the potential connectivity between them assessed.

Calliaghstown wetland site is the closest located ca. 350m west of the proposed scheme. The location of this wetland site is illustrated in Figure 3.5 below.

The Calliaghstown wetland site has not been afforded protection at a national or international level. Wetland surveys were undertaken in 2008 within County Meath as detailed in; *County Meath Wetlands and Coastal Habitat Survey*[17] (2010). As part of the methodology and site selection for this survey a wide range wetland sites across county Meath were identified (ca. 1700no.) and of these sites 64 no. were subject to field surveys. Given that Calliaghstown wetland site has not been afforded protection at an international or national level, nor was it identified as a prime wetland site to be surveyed during 2008, this wet grassland and marsh area is likely to be of local importance at a higher level.

However, taking a precautionary approach, and considering the wetland site has not been subject to detailed ecological surveying, for the purposes of this EcIA; Calliaghstown wetland site (WMI MH220) will be given a geographic frame of reference of being between - County Importance and Local Importance at a higher level.

[16] http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/map-of-irish-wetlands---map/index.html

[17] Meath County Council & The Heritage Council (2010). County Meath Wetlands and Coastal Habitat Survey; An action of the County Meath Heritage Plan 2007-2011.

Table 3.3 Wetlands within 2km of the proposed scheme.

Name (Site Code)	Distance[18]	Description	Site Evaluation[19]	Connectivity
Calliaghstown Wetland (WMI MH220)	ca. 350m west	Marsh, wet grassland	F Rating: Unknown value	Sections of the N52 roadway, and therefore also the proposed scheme, will drain to ground via agricultural lands field drains located directly north of proposed footpath / scheme and to the road drainage network on local roadway (L68355). Field drains which receive drainage from the N52 roadway of the scheme have potential connectivity with this wetland site.
Boolies Farm Ponds (WMI MH222)	ca. 900km west	Artificial pond	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Pepperstown Ponds (WMI MH225)	ca. 1.km south east	Artificial pond	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Balrath Demesne Pond East (WMI MH223)	ca. 1.5km south west	Artificial pond	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Rockfield Pond WMI MH227)	ca. 1.5km east	Artificial pond	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Destinrath (WMI MH221)	ca. 1.6km north	Marsh, wet grassland, scrub	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Febog Pond (WMI MH226)	ca. 1.8km east	Artificial pond, marsh, wet grassland	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.
Balrath Demesne Pond West (WMI MH224)	ca. 2km south west	Artificial pond	F Rating: Unknown value	No direct connectivity. No surface water or landscape connectivity from the proposed scheme.

3.2.4. Irish Wetland Bird Survey

A review of the I-WeBS (Irish Wetland Bird Survey) data identifies no waterbird counting sites within 5km of the proposed footpath.

[18] Distance measured in a straight line from closest point.
[19] From Wetland Survey Ireland datasets.

Figure 2.5 Calliaghstown wetland site located west of proposed scheme.

3.3. Species Records

This section of the report outlines species that have been recorded within the proposed scheme.

A review of the National Biodiversity Data Centre (NBDC) datasets[20] of rare, protected and invasive species records for the last 12 no. years were reviewed. Records for the past 12 years are included within this report as older records are unlikely to still be relevant given their age and the changes in land use and management that has occurred in the intervening period.

7 no. 100m x 100m Ordinance Survey Ireland (OSI) grid squares which encompass the project site were reviewed, N721739, N722740, N723741, N724742, N726743, N727744, N728745. A review of every 1km x 1km grid square within the proposed scheme was also examined to provide an account of species previously recorded within the wider area which included OSI grid squares N7274, N7273, and N7173.

NBDC species records for the reviewed area were very limited with fungi and insects forming almost all of the recorded species. Only one species of note was recorded within a 1km radius around the project site; Sparrowhawk (*Accipiter nisus*). The absence of recent records of species from the NBDC datasets does not necessarily mean that species does not occur within the area rather a species presence has not formally been recorded to date.

No invasive plant species have been recorded within the proposed project site.

3.4. Site Visit

The site was visited 29th September 2021. All potential ecologically sensitive receptors were noted and photographed. The wider area around the project site is largely rural in nature with the surrounding landscape being made up of farmed lands. The predominant habitat bordering the proposed scheme is improved agricultural grassland. The hedgerows and treelines which act as field boundaries around the field systems serve as wildlife habitats and corridors connecting sites of ecological interest within the wider area.

The project site is aligned entirely along the N52 roadway and as such roadside hedgerows, roadside trees, and residential gardens are the primary areas where vegetation clearance will be required. There will also be some small areas where new fence lines will be set back ca. 2-3m into fields and as such there will also be loss of some small areas of agricultural grassland.

Presented below is a summary of the predominant habitat types found within and around the proposed project site. Habitats are classified in line with the Heritage Council Classification scheme (Fossitt, 2000). Dominant plant species in each habitat type were recorded. Plant nomenclature follows the Botanical Society of Britain and Ireland's List of Accepted Plant Names (Botanical Society of Britain and Ireland, 2019). The approach to determining ecological importance of features within and around the project site is set out in Section 2.4 of this report and is based on CIEEM (2018) guidance.

3.4.1. Hedgerows (WL2)

The majority of the project site involves land take along the frontage of residential properties, however, there are also ca. 320m of hedgerow (WL2) alongside the roadway where no properties or associated gardens occur. The proposed project will involve the loss of ca. 320m of well-maintained / low cut roadside hedgerow. Hedgerow required to be cleared for the footpath is predominantly made up of cut back ash (*Fraxinus excelsior)* of ca. 1.5m - 2m in height with occasional elder (*Sambuca nigra*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), holly (*Ilex aquifolium*) and willow (*Salix* spp.). Bramble (*Rubus fruticosus*), bindweed (*Calystegia sepium*), and ivy (*Hedera helix*) are also found throughout the ash predominant hedges. Given the geographical setting of the low cut hedgerows, i.e. alongside a busy roadway, they do not provide for a high value ecological corridor between ecological sites or good quality habitats. The low cut hedgerows will provide for some opportunities for nesting and foraging passerine bird species, however, given the proximity of the N52 roadway,

[20] https://maps.biodiversityireland.ie/Map

these low cut, species poor hedgerows are not considered to be high quality or prime nesting habitat. Hedgerows in this area are considered to be patchy and species poor and are of local ecological value at a lower scale.

All roadside / field boundary hedgerows are located within ca. 400m area at the eastern side of the proposed project. The remainder of the project site will involve loss of garden hedgerows fronting residential properties. The hedges fronting properties are made of ornamental non-native species (e.g. privet hedges).

Plates 2.1 - 2.4 show an example of the semi natural hedgerows within the footprint of the proposed scheme.

Plate 2.1 **Cut ash in roadside hedgerow.**

Plate 2.2 **Low cut ash dominant hedgerow.**

Plate 2.3 **Elder within cut hedgerow.**

Plate 2.4 **Ash regrowth.**

3.4.2. Trees

There are 9 no. of young and/or semi mature ash trees within the roadside hedgerows which have been allowed to develop (i.e. which have not been periodically cut back). All 9 no. ash trees are ivy covered. There are also 2 no. semi mature holly trees within the roadside hedgerow and 1 no. semi mature sycamore (*Acer pseudoplantanus*) between residential properties. The ash, holly and sycamore trees limbs and branches are thin and a such do not allow for holes and crevices of sufficient size to accommodate roosting bats. The trees do provide bird nesting habitat for local passerine species. Native trees within the proposed project site are considered to be of local ecological value at a lower scale. Plates 2.5 - 2.6 show an example of ash trees (within the aforementioned hedgerows) within the footprint of the proposed scheme.

Plate 2.4 Young developing ash in hedgerow.

Plate 2.6 Ivy covered semi mature ash in hedgerow.

There are also 2 no. of ornamental non-native trees within the footprint of the proposed scheme. These are located within residential gardens (Refer to Section 2.7.7 below for ornamental planting).

3.4.3. Scrub (WS1)

Outside of the footprint of the proposed project there is an area of willow scrub habitat bordering the eastern side of the N52 roadway. Bramble and nettle (*Urtica dioica*) are prevalent throughout the scrub habitat. There will be no willow scrubland lost or interfered with as a result of the proposed footpath project. The proposed footpath is to be located on the opposite laneway to the area of scrub. Plate 2.7 below shows the area of willow scrub adjacent to the N52 roadway. The scrub habitat is separated from the roadway by a ca. 1m high stone wall (refer to Plate 2.9 below for stone wall).

Plate 2.7 Willow scrub habitat set back from N52 roadway.

3.4.4. Conifer Plantation (WD4)

There is one small area of mature and semi mature planted woodland, acting as a shelter belt for a residence. consisting of larch (*Larix decidua*) and scots pine (*Pinus sylvestris*). This conifer shelter belt / small woodland area is located on the south side of the N52 and the proposed pathway is located on the north side of the N52 roadway. There will be no conifer shelter belt lost or interfered with as a result of the proposed scheme.

Plate 2.7 below shows the small area of conifer woodland adjacent to the N52 roadway. The scrub habitat is separated from the roadway by a ca. 1m high stone wall.

Plate 2.8 Conifer woodland habitat adjacent to N52 roadway.

3.4.5. Stone Walls (BL1)

There are dry stone walls located alongside the N52 roadway. Some of the larger stone walls on the south side of the roadway show evidence of lichen, mosses and ferns establishing within cracks and crevices. The larger stone wall features are located on the south side of the N52 and the proposed pathway is located on the north side of the N52 roadway. Plate 2.10 below shows the ca. 1m high old stone wall with lichen, mosses and small ferns which separates the roadway from the aforementioned willow scrub habitat. None of the larger stones walls will be lost or interfered with as a result of the proposed project.

On the same side as the proposed footpath / north side of the N52 roadway, there are occasional smaller and lower stone walls which form the boundary of residential properties. These walls will be removed and reinstated at a setback distance. The majority of smaller stone walls have ornamental planting associated with residential gardens, as per Plate 2.11 below. Once small section of old stone wall, ca. 15m in length, between residential properties (refer to Plate 2.9 below) is covered with ivy and bramble and is backed by 1 no. young hawthorn and 1 no. semi mature sycamore (as noted in Section 2.7.1.).

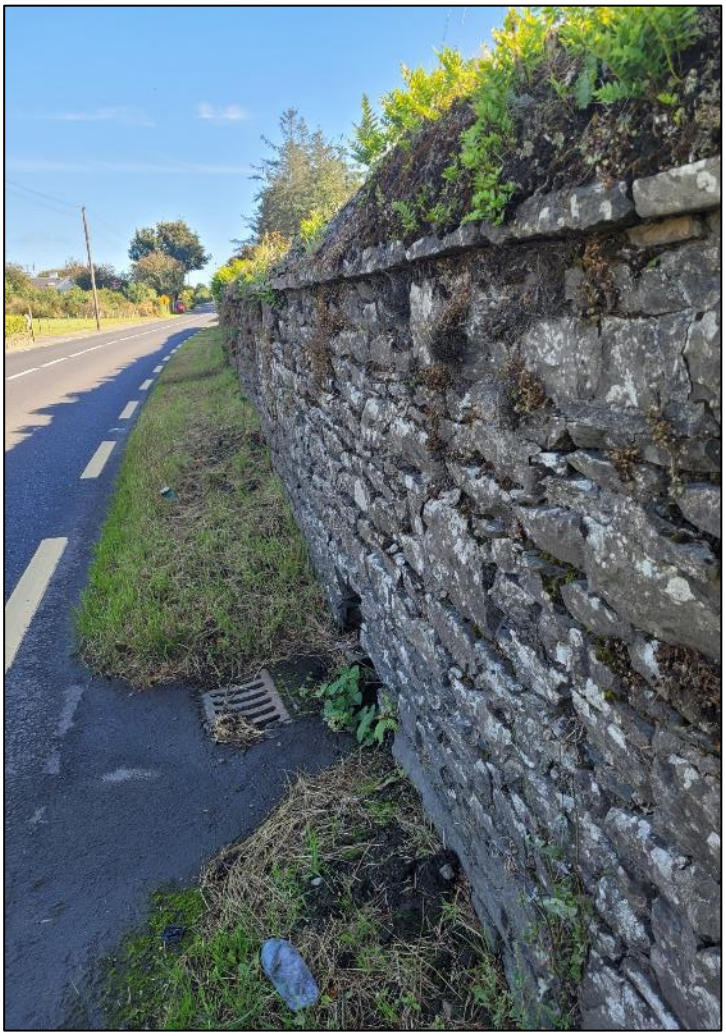


Plate 2.10 Old stone wall near scrub habitat to be retained untouched.

Plate 2.9 Ivy and bramble covered stone wall.

Plate 2.11 Residential stone wall.

3.4.6. Improved Agricultural Grassland (GA1)

The lands around and bordering the proposed scheme are dominated largely by intensively managed or highly modified agricultural grasslands. These improved agricultural grasslands are species poor and as such are of poor ecological value.

3.4.7. Ornamental Planting

Within the footprint of the proposed project, the frontage of residential properties have a wide variety of ornamental planting predominantly of non-native plant species along with many areas of grassed lawn. Along with the removal of residential fences and or walls, there will be some loss of garden hedgerows, trees and shrub planting. Boundary features will be removed and new boundary features will be re-instated at a short setback distance.

3.4.8. Grass verges

There are well maintained and well cut grass verges along entire length of the proposed project. These well mown grass verges are considered to be of low ecological value. Grass verges will be reinstated alongside the new proposed pathway.

Note; the well mown grass verges along the front of properties and roadside edge do not represent the habitat type of GS2 Dry meadows and grassy verges.

3.4.9. Artificial Surfaces (BL3)

There are large areas of built surfaces in the form of the N52 roadway itself along with the driveways of local residences.

3.4.10. Species

No evidence of protected terrestrial mammal species was noted during site surveys. There are no badger (*Meles meles*) setts within or adjacent to the proposed project. The trees within the project site do not proffer habitats suitable for accommodating bats[21].

Outside of the ornamental planting of residential gardens, there are ca 320m of hedgerows and 12 no. trees within the project site which are suitable foraging habitats for invertebrates, local passerine bird species and small mammals. The project site does not proffer high quality nesting habitat for birds given the low cut nature of the hedgerows and the proximity of these hedgerows to a busy roadway.

No invasive plant species were noted within the footprint of the project site.

3.5. Key Ecological Receptors

In summary, the proposed project site does not lie within any area that has been designated for nature conservation at an international or national level. There are no habitats listed on Annex I of the Habitats Directive or records of rare or protected plants within the project site. There are no plants which are listed as alien invasive species[22].

There will be direct loss of 320m of hedgerows and 12 no. trees within the footprint of the proposed scheme. As such hedgerows and treelines are considered to be key ecological receptors.

[21] Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London

[22] As listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/ 2011.

There will be direct loss of existing grass verges within the footprint of the proposed scheme. These very narrow, largely unconnected strips of well mown grass verges are not species rich nor are they an important ecological corridor. The grass verges bordering the N52 roadway and residential properties are not considered to be key ecological receptors.

There will be direct loss of ornamental planting within the residential gardens. There will be no direct loss of mature native trees within residential gardens fronting the roadway. These areas are predominantly shrubs, non-native hedges and mown lawns with occasional non-native trees. Whilst residential gardens can proffer refuge and habitat for a wide range invertebrates, smaller terrestrial mammals and bird life, the small ca. 2-3m wide strips of gardens fronting the busy roadway are not considered to be semi natural habitats of any significant ecological value. Given the size of these small strips of gardens, the lack of native plant species diversity and their well-managed nature, these ornamental planting areas are not considered to be key ecological receptors.

The are some short sections of un-grouted old and new stone walls (not including plastered walls, breeze block walls, modern brick walls) of ca. 90m combined length which will be removed and, like for like, re-instated at a setback distance from the new pathway. Stone walls can proffer refuge for small mammals, smaller song birds and a wide variety of insect life. There is a section of old stone walls which is overgrown with ivy (refer to Plate 2.9 above) which could act as refuge/habitat for invertebrates. Considering the location and length (ca. 15m) of this stone wall it is unlikely to accommodate any protected small mammals. Old and new stone walls to be removed within the project site are not considered to be of ecological value at a local level. The old stone wall accommodating ferns, mosses and lichen is to be retained untouched.

The key ecological receptors which have the potential to be directly or indirectly impacted by the proposed project are listed below in Table 2.4. This table also ranks these key ecological receptors. Those habitats which are outside of the proposed project site and / or which have no potential to be indirectly impacted by the proposed project are not included as key ecological receptors.

Table 2.4 Ecological receptors and evaluation.

Receptors	Evaluation
River Boyne and River Blackwater SAC River Boyne and River Blackwater SPA	International Importance
Calliaghstown Wetland site	County Importance / Local Importance (Higher Value)
Unnamed tributary of the Toberultan Stream Toberultan Stream	Local Importance (Lower Value)
Hedgerows Trees	Local Importance (Lower Value)
Stone walls* Grass verges	No ecological importance

* The stone walls assessed to have some ecological value for accommodating mosses, ferns and lichen are outside the footprint of the proposed project and are not to be impacted.

4. Impact Assessment

4.1. Potential Impacts

The potential for impacts on nature conservation interests have been assessed in light of habitats and the species that are likely to be affected by the proposed scheme. The approach considers the following guidance: -

- *Guidelines on the Information to be Contained in Environmental Impact Assessment Report*, EPA (2017);
- *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018);
- *Guidelines for Assessment of Ecological Impacts of National Road Schemes*, 2nd Edition (NRA, 2009);
- *Guidelines for the treatment of Otters Prior to the Construction of National Roads Schemes* (NRA, 2006);
- *Guidelines for the treatment of Badgers Prior to the Construction of National Road Schemes* (NRA 2006); and
- *Requirement for the Protection of Fisheries Habitat During the Construction and Development Works at River Sites* (Eastern Regional Fisheries Board, 2006).

Potential impacts from the proposed scheme on the key ecological receptors of protected sites and habitats (which are listed in Section 3 above) are outlined in this section. Potential direct and indirect impacts during both construction and operational phase of the proposed scheme are discussed. Impacts to European sites are also considered in detail within the accompanying Appropriate Assessment report.

4.1.1. Designated Conservation Sites

The proposed scheme does not directly intersect or lie within with any internationally or nationally designated conservation sites such as SACs, SPAs, Ramsar, or NHAs. The nearest designed conservation sites are River Boyne and River Blackwater SAC and SPA which are located ca. 2.7km from the proposed project site.

There is potential indirect connectivity from a ca. 400m section of the project site to these European sites via the N52 road drainage network and ca. 9km of watercourses. The drainage network and watercourse connectivity is considered to be indirect and weak. This potential surface water connectivity does not represent a viable pathway through which the SAC / SPA could potentially be impacted given the location, nature and scale of the proposed project. A comprehensive assessment of potential impacts on European sites is outlined in the accompanying Appropriate Assessment Screening Report (document reference no: 5203684DG001) which concludes; "*It is concluded by the authors of this report that the proposed N52 Road Safety Improvement Scheme either individually or cumulatively, poses no likely significant effects on any European sites in view of their conservation objectives. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment*."

There is no direct or indirect connectivity to any Ramsar sites, Nature Reserves, Annexed habitats, National Heritage Areas or proposed National Heritage Areas.

Given the location, scale and nature of the proposed project, it is considered no impacts to designated conservations sites will occur as a result of the construction and / or operation of the proposed scheme.

4.1.2. Watercourses

A ca. 400m section of the N52 roadway drains to an unnamed tributary of the Toberultan stream (refer to section 3.2.2 above). Therefore, the potential for the construction and / or operation phase of this scheme to impact on

the surface water quality of this watercourse and in turn impact species accommodated within the waterbody was considered. Proposed works, within the 400m section which drains to the unnamed tributary, involve small areas of excavation and pathway, signage, kerb and ducting installation. These small scale works over a short 400m section will not likely result in significant amounts of potential contaminants (e.g. silts, sediments, hydrocarbons etc.).

Given the small scale nature of the project, the non-viscous material being used and given that standard construction methodologies will be employed, impacts to surface water quality or surface water features are not considered likely during the construction phase.

When the footpath is in use there will be no source of potentially contaminating or polluting materials from this element of the project. The small increase in hard standing surface areas from the installation of the pathway will not lead to any significant changes to the volumes of surface water run-off to the road drainage network. No impacts or alteration to either surface water quality or to the hydrological flows within the unamend tributary are considered likely during usage of the scheme.

Given the location, scale and nature of the proposed project, it is considered no impacts to surface water features will occur as a result of the construction and / or operation of the proposed scheme.

4.1.3. Wetland Habitats

Surface water run-off from the majority of the N52 roadway will drain to local field drains located at topographical low points (bar the 400m section discussed above which drains to the unnamed tributary). Given the proximity of the Calliaghstown Wetland site to the N52 roadway (ca. 320m), it is considered that surface water run-off from the N52 roadway likely reaches the wetland site via local field drains.

It is considered that the construction of the footpath, junction improvement works, installation of drainage, signage and ducting, kerb installation and the re-instatement of grass verges will not likely generate significant amounts of potentially contaminating materials which could contaminate surface water run-off from works areas during heavy rainfall events. During the construction phase of the proposed project the potential for contaminating material (e.g. silts, sediments, hydrocarbons etc.) to reach the wetland site via surface water run-off through local field drains is highly unlikely given the scale and nature of the project and the materials being used.

During the construction phase of the proposed scheme, no likely significant impacts are anticipated on surface water quality within local field drains and as such there will be no likely effects on the Calliaghstown Wetland site.

When the scheme is in use there will be no source of potentially contaminating or polluting materials from usage of the footpath and there will be no alterations to existing surface water runoff volumes from the N52 roadway. Drainage from the N52 roadway will be to the same field drains. The small increase in hard standing surface areas from the installation of the pathway will not lead to any significant changes to the volumes of surface water run-off to local field drains. No impacts to either surface water quality or to the hydrological flows within local field drains are considered likely during usage of the 912m of footpath and traffic calming gateways.

Whilst it is unknown if the Calliaghstown Wetland site is a groundwater fed ecosystem, it is considered that neither the construction nor operation of the 912m footpath nor usage of the proposed road safety improvement scheme will lead to any changes to the hydrological or ecological status of this wet grassland and marsh area.

4.1.4. Hedgerows and Trees

The project is of relatively small scale and will involve the direct loss of ca. 320m of hedgerow and 11 no. native trees. The hedgerows are assessed to be low cut, managed and are not species rich. The trees are not considered to be of high ecological value.

The loss of these small habitats does not represent any significant adverse impact which could potentially affect the refuge or foraging areas for local mammal and bird species. The loss of these small hedgerow and tree habitats will not likely impact or affect the refuge or foraging areas of local mammal and bird species. No likely impacts to local fauna are anticipated from the removal of ca. 320m of roadside hedgerow and the removal of 11 no. semi mature trees.

Given the proximity of these features to the roadway and as these habitats are not species rich or diverse, there will be no loss of habitats of high ecological value suitable for accommodating protected species or which act as important ecological corridors.

4.2. Mitigation Measures

The following recommendations and mitigation measures are proposed: -

- Vegetation clearance should be undertaken outside of bird nesting season (1st May – August 31st inclusive). Where habitat clearance cannot be avoided during the nesting season period then NPWS should be consulted in advance and if, following consultation, it is deemed necessary then a suitably qualified ecologist should be appointed to oversee clearance of nesting habitat and ensure the area is free of nesting birds. The appointed ecologist should develop a method statement for the nesting habitat clearance in consultation with local NPWS staff.

- A comprehensive landscaping design should be developed for the project site which should include for additional boundary planting and the creation new hedgerow and the planting of standard sized trees. Species used in the landscaping design should be native Irish species only and it is recommended that these are locally sourced. The aim of the landscaping design should be to replace, at minimum, the ca. 320m of hedgerow and 11 no. native trees which will be lost as a result of the proposed project. It is recommended that a more species rich and species diverse planting regime is detailed in the landscaping design so as, over the long term, there can be an improvement to local biodiversity.

- It is recommended that the landscaping design should include areas of ecological enhancement such as wild flower areas along grass verges as recommended in the All Ireland National Pollinator Plan.

- During the construction phase good practice environmental and pollution control measures should be employed with regard to current best practice guidance such as Environmental Good Practice On-site Guide (CIRIA, 2018).

- The construction management of the project site will take account of the recommendations of the Construction Industry Research and Information Association (CIRIA) guides ‘Control of Water Pollution from Construction Sites’ and ‘Groundwater control - design and practice’ to minimise as far as possible the risk of pollution.

- Strict bio-security protocols will be implemented during the construction phase so as to ensure no imported materials potentially contaminated with invasive plant species are brought to the project site. All imported soil materials should be visually inspected for signs of invasive plant contamination (such as root fragments, rhizome material) prior to arrival on the project site.

- During the construction phase all necessary precautions should be undertaken to prevent potential impact upon habitats and species from dust generated during the construction phase.

4.3. Cumulative Impacts

Cumulative impacts with other plans and projects were considered during the preparation of this report and the accompanying Appropriate Assessment Screening Report (document reference no: 5203684DG001).

Available Meath County Council records were reviewed with respect to other plans or projects which have the potential to occur during the same period as the proposed N52 pathway project to determine if there is the potential for other works or projects to act in combination with the proposed project to give rise to potential cumulative impacts on protected species or habitats of high ecological value.

All of the submitted planning applications within the vicinity of the proposed pathway project are local developments and are small scale projects consisting of private property extensions, single dwelling houses and retention projects.

It is considered that the proposed N52 pedestrian pathway project will not result in any significant impacts on protected species nor on habitats of high ecological value. Given that no significant adverse impacts are anticipated on protected species or habitats of high ecological value as a result of the proposed project, it is considered that the proposed project will not act in combination with other plans and projects to give rise to significant effects on habitats of high ecological value, protected species or local biodiversity.

4.4. Residual Impacts

The proposed project will result in the loss of grass verges, 11 no. native trees and ca. 320m of hedgerow. Mitigation by undertaking vegetation clearance outside of bird nesting season is proposed for breeding birds. Planting of native species with a diverse species mix is also proposed as mitigation to compensate for loss of hedgerow and tree habitats. The introduction of wildflower areas along the grass verges can lead to an increased availability for pollinating insects and food source for local passerine bird populations. Biosecurity measures are proposed to prevent the import of invasive plant species.

Through the identification of appropriate ecological mitigation measures, the residual ecological impacts of the project proposals are not expected to be significant and are expected to be localised to the project site. Local populations of passerine birds may suffer some minor disruption and habitat loss in the short term but, as the greater part of the project site is of low ecological value, habitat losses to project are not significant. Some minor beneficial effects can be expected over the long term from the planting of species diverse hedgerows and some opportunities for enhancement measures are presented in the form of wildflower planting along grassed verges. Provided ecological mitigation measures implemented correctly no residual impacts are expected.

5. Conclusions

The proposed N52 Road Safety Improvement Scheme will result in the loss of small areas of grass verges, species poor hedgerow and a small number of semi mature native trees within these hedgerows. The proposed project will also result in the loss of small sections of residential gardens.

The proposed project will not likely affect any habitats of high ecological value such as designated conservation sites, watercourses or local wetland sites.

The proposed project will not impact upon protected terrestrial or volant mammal species. There will be some small loss of bird nesting and foraging habitats, however with the inclusion of a landscaping design impacts on local passerine species is considered to be negligible.

There are opportunities for improvement to local biodiversity by the inclusion of wildflower areas along grassed verges.

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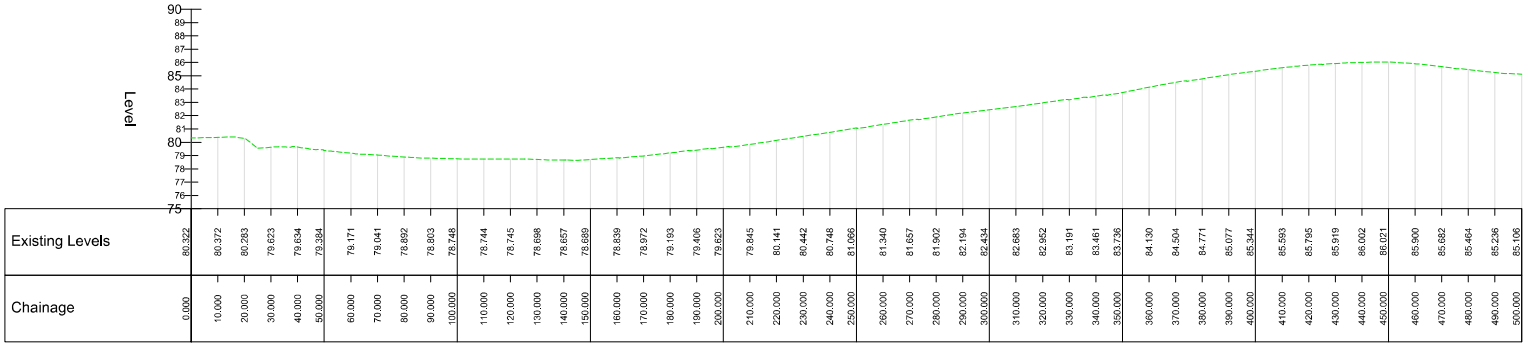
Appendices

Appendix A. Design Drawings

ALIGNMENT - N52 CENTRLINE - LONGSECTION
SCALE: H 1:2500,V 1:500. DATUM: 75.000



LEGEND

No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

Comhairle Chontae na Mí
Meath
County Council

Buvinda House, Dublin Road, Navan, Co Meath C15 Y291
T: 046 909 7000 F: 046 909 7001 W: www.meath.ie

Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 1 - (CH 0-500)

comhairle chontae na mí
meath county council

A1 / A3

LEGEND

- GRASS VERGE - 1.0m WIDE
- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
- EXISTING FOOTPATH
- EXISTING KERBLINE
- PROPOSED KERBLINE

GEN NOTES

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3. DO NOT SCALE, use figured dimensions only, if in doubt ask.

Drawn by:	Checked by:	Approved by:
D Muldoon	D Muldoon	N Whyatt

File Reference: TRA 06 04 04 99

Scale: 1:1000 @ A1
1:2000 @ A3
Date: 24/11/20

Drg. No: DG9211

Rev: D02

ALIGNMENT - N52 CENTRLINE - LONGSECTION (1)
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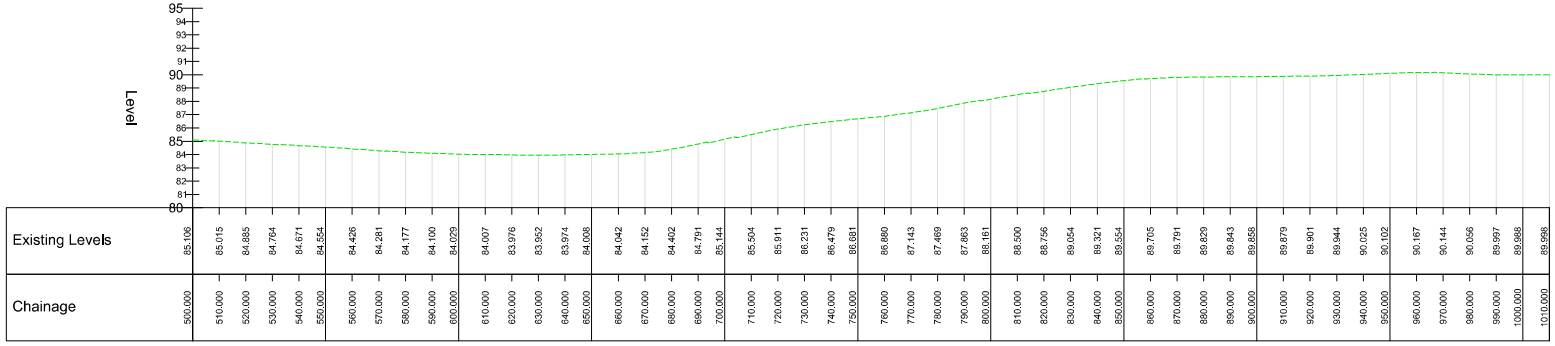

LEGEND

No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

Comhairle Chontae na Mí
Meath
County Council
Buvinda House, Dublin Road, Navan, Co Meath C15 Y291
T: 046 909 7000 F: 046 909 7001 W: www.meath.ie

Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 2 - (CH 500-1010)

A1 / A3

LEGEND

- GRASS VERGE - 1.0m WIDE
- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
- EXISTING FOOTPATH
- EXISTING KERBLINE
- PROPOSED KERBLINE

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3. DO NOT SCALE, use figured dimensions only, if in doubt ask.

Drawn by:	Checked by:	Approved by:
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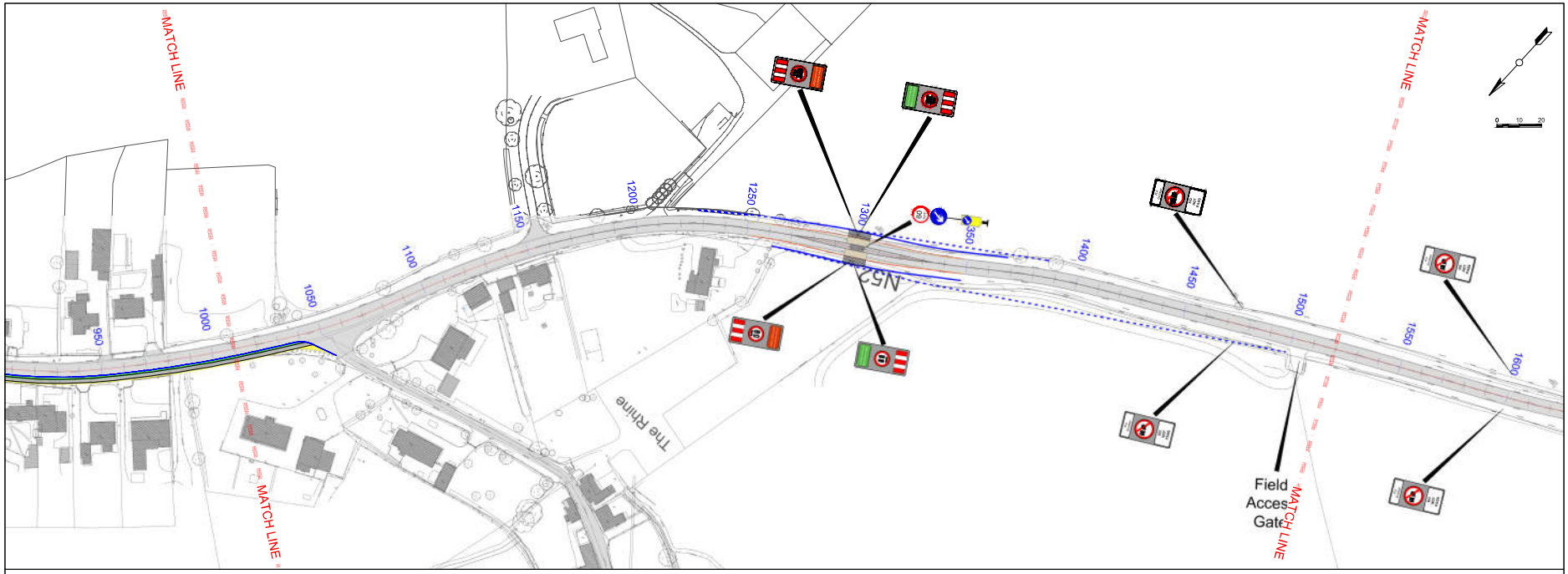
File Reference: TRA 06 04 04 99

Scale: 1:1000 @ A1, 1:2000 @ A3
Drg. No: DG9212
Rev: D02
Date: 24/11/20



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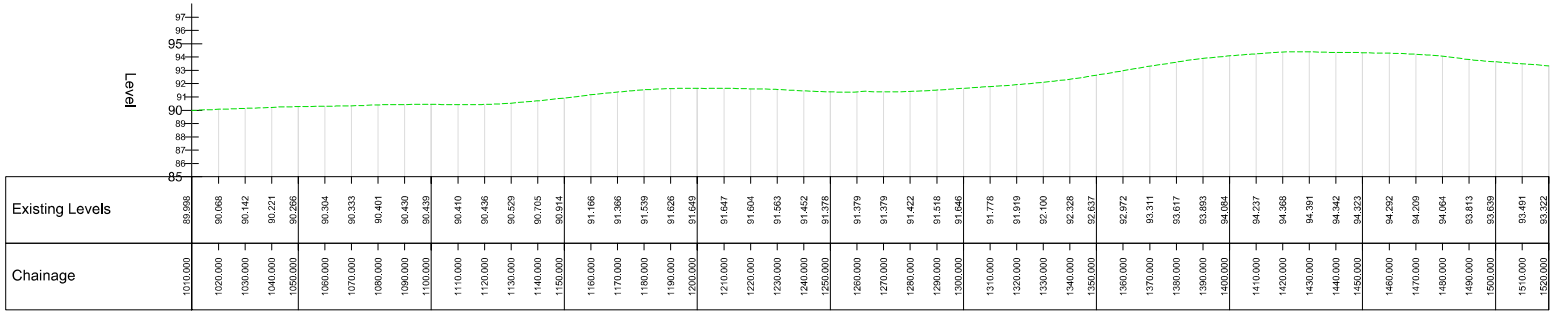

LEGEND

No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

Comhairle Chontae na Mí
Meath
County Council

Buvinda House, Dublin Road, Navan, Co Meath C15 Y291
T: 046 909 7000 F: 046 909 7001 W: www.meath.ie

Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 3 - (CH 1010-1520)

comhairle chontae na mí
meath county council

A1 / A3

LEGEND

- GRASS VERGE - 1.0m WIDE
- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
- EXISTING FOOTPATH
- EXISTING KERBLINE
- PROPOSED KERBLINE

GEN NOTES

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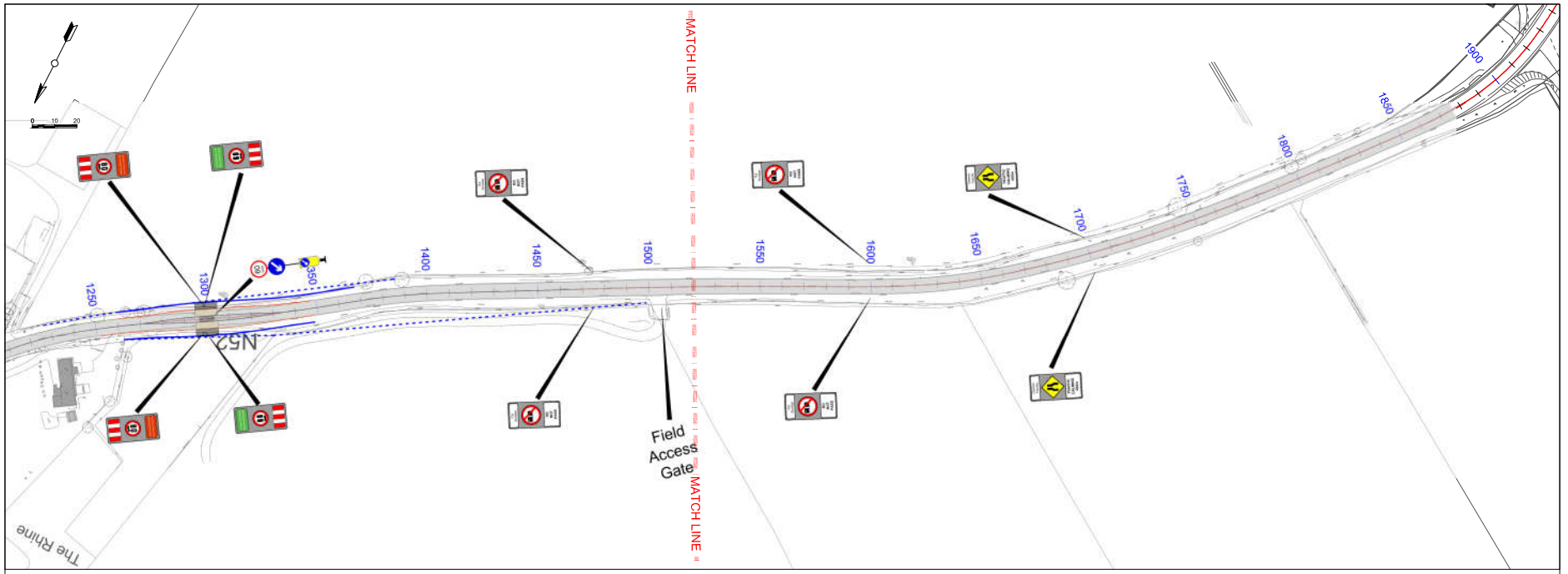
3. DO NOT SCALE, use figured dimensions only, if in doubt ask.

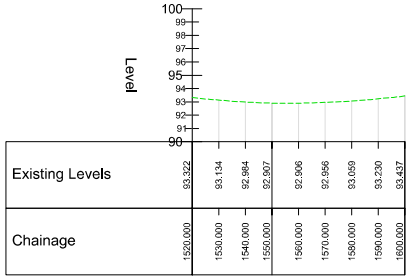
Drawn by:	Checked by:	Approved by:
D Muldoon	D Muldoon	N Whyatt

File Reference: TRA 06 04 04 99

Scale: 1:1000 @ A1, 1:2000 @ A3
Drg. No: DG9213
Rev: D02
Date: 24/11/20



ALIGNMENT - N52 CENTRLINE - LONGSECTION (3)
SCALE: H 1:2500,V 1:500. DATUM: 90.000



LEGEND

No.	Date	Amendment / Issue	Drn	Chk	App
D02	05/02/21	Revised Layout	DM	NW	NW

Stage: Preliminary Design

Comhairle Chontae na Mí
Meath
County Council

Buvinda House, Dublin Road, Navan, Co Meath C15 Y291
T: 046 909 7000 F: 046 909 7001 W: www.meath.ie

Project:
N52 Calliaghstown
Road Safety Improvements

Title:
Existing N52
Road Profile
SHEET 4 - (CH 1520-1600)

comhairle chontae na mí
meath county council

A1 / A3

LEGEND

- GRASS VERGE - 1.0m WIDE
- FOOTPATH - 1.8m WIDE
- VERGE - 0.5m WIDE
- LANDS ACQUISITION REQUIRED FOR THE SCHEME
- PREFERRED ADDITIONAL LAND ACQUISITION FOR INCREASED VISIBILITY
- EXISTING FOOTPATH
- EXISTING KERBLINE
- PROPOSED KERBLINE

GEN NOTES

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3. DO NOT SCALE, use figured dimensions only, if in doubt ask.

Drawn by:	Checked by:	Approved by:
D Muldoon	D Muldoon	N Whyatt

File Reference: TRA 06 04 04 99

Scale: 1:1000 @ A1, 1:2000 @ A3
Date: 24/11/2020
Drg. No: DG9214
Rev: D02

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

Appendix G – Copy of Newspaper Notice

MEATH COUNTY COUNCIL

Planning Notice Part 8

Planning and Development Act 2000-2021
Planning and Development Regulations 2001 – 2022

NOTICE OF PROPOSED DEVELOPMENT

N52 CALLIAGHSTOWN ROAD SAFETY IMPROVEMENT SCHEME

In accordance with the above regulations Meath County Council proposes to carry out development at Townspark, Calliaghstown, Lackmelch and Barfordstown, southwest of Kells, Co. Meath.

The proposed development will consist of:

- **The provision of a footpath (approximately 950m long) primarily along the northside of the N52 from its junction with the Rhine road, L68355 to the existing footpath at the M3-N3-N52 roundabout at Townspark, Kells Co. Meath.**
- **Two number traffic calming gateways on the N52, at Barfordstown and Townspark.**
- **Safety improvement works to the junctions of the N52 and The Rhine road, L68355 and to the junction of the N52 and Boolies road, L68350.**
- **Drainage works comprising road gullies, underground pipelines (both new and upsizing existing)**
- **Public Lighting, Accommodation & fencing/boundary works, Relocation of utility poles**
- **Landscaping works and ancillary infrastructure works.**

The development has been the subject of an Appropriate Assessment screening in accordance with Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) and the Planning and Development Acts 2000 -2021.

In accordance with Article 81 of the Planning & Development Regulations 2001-2022, Meath County Council has concluded from a preliminary examination, that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required. Any person may, within 4 weeks from the date of this notice, apply to An Bord Pleanála for a screening determination as to whether the proposed development would be likely to have significant effects on the environment.

The plans and particulars of the proposed development will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy, during office hours, at the offices of the Local Authority at the following locations:

- The Planning Section, Meath County Council, Buvinda House, Dublin Road, Navan, Co. Meath, C15 Y291 (inspection and purchase – see website meath.ie for Planning Counter opening hours)
- Meath County Council, Kells Municipal District Office, Headfort Place, Kells Co. Meath, A82 W2R3 (Opening Hours 9:00am to 1:00pm and 2:00pm to 5:00pm) (inspection only)
- https://consult.meath.ie/ (inspection only)

from Monday 24th October 2022 to Tuesday 22nd November 2022 (excluding weekends, Public Holidays, and Bank Holidays)

Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated may be made in writing to the Local Authority : ***Planning Department, Meath County Council, Buvinda House, Dublin Road, Navan, Co. Meath, C15 Y291*** or emailed to planning@meathcoco.ie or via the https://consult.meath.ie/ on or before Tuesday 06th December 2022.

Appendix H – Copy of Site Notice

comhairle chontae na mi
meath county council

MEATH COUNTY COUNCIL – SITE NOTICE
Planning Notice Part 8
Planning and Development Act 2000-2021
Planning and Development Regulations 2001 – 2022

NOTICE OF PROPOSED DEVELOPMENT

N52 CALLIAGHSTOWN ROAD SAFETY IMPROVEMENT SCHEME

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- **Public Lighting, Accommodation & fencing/boundary works, Relocation of utility poles**
- **Landscaping works and ancillary infrastructure works.**

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In accordance with Article 81 of the Planning & Development Regulations 2001-2022, Meath County Council has concluded from a preliminary examination, that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required.
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The plans and particulars of the proposed development will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy, during office hours, at the offices of the Local Authority at the following locations:

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Signed: _____
Martin Murray, Director of Services, Meath County Council

Date: 19th October 2022

Appendix I – DMURS Audit

Design Audit, in accordance with DMURS, Design Manual for Urban Roads and Streets, 2019

N52 Road Safety Improvement Scheme (RSIS) Calliaghstown, Kells, Co. Meath.

Introduction

This reader is referred to the proposed design drawings.

The objectives of the proposals are as follows :

- To address safety issues raised in the RSI Inspection (N52 Tag ID 23688 & 9) i.e. improve visibility to/from the L68350 and widen the local road bellmouth,
- To provide measures to assist in the reduction of vehicle speeds through the 60Kph speed limit,
- To provide pedestrian facilities to enable local residents to access domestic and agricultural properties within the residential area of the 60Kph speed limit,
- To provide pedestrian facilities to enable local residents to access the L68350 and use the local road as a recreational walking route.

The following Design audits have been carried :

- Road Safety Audit
- Accessibility
- Materials

Road Safety Audit

An independent Road Safety Audit has been carried out and the reader is referred to the independent Road Safety Audit (Appendix B) and also to 'Feedback' form relating to sign-off of issues arising by the Audit Team and the Designer.

Accessibility Audit

Summary of Issues

• Currently there are no pedestrian and/or cycle facilities on the N52 at the proposed development.

• Provision of a shared spaces can lead to difficulties for visually impaired users who may rely on kerb lines to navigate streets. Shared spaces may be intimidating for visually impaired users whom cannot rely on eye contact with drivers to communicate

• A shared pedestrian and cycle facility 1.8m is proposed to one side of the road only. Whilst an improvement on the, a single space may limit mobility.

• It is recommended the footpaths and kerbs be provided.

Possible Conflicts with Other Audits/Project Objectives

• Provision of a footpath will segregate pedestrians from motorists and may serve to increase vehicle speeds and reduce pedestrian mobility, conflicting with the objectives of the project.

Conclusions/Recommendations

• The characteristics of the street will change with the proposed design creating a lower speed environment that, on balance, is safer for all users whilst maintaining the movement function of the road.

• As drivers travel at lower speeds pedestrians with mobility impairments will be more readily identified.

• The street/carriageway edge will be defined by planted areas (green strip) where possible, kerbing, yellow lines and 'cats-eyes' that will aide navigation.

• Navigation measures could be supplemented via the use of tactile paving at junctions and key crossing points.

Materials Audit

Summary of Likely Issues

• Areas of new pedestrian and cycling facilities are prone to failure where they are continuously crossed by vehicles e.g. house entrances

• Areas of broken paving can be a maintenance liability and potential trip hazard.

• Paving and can be a maintenance liability and potential trip hazard.

• Realignment of historic louth bank walls and replacement with materials/walls of a more modern construction will detract from the visual amenity.

Possible Conflicts with Other Audits/Project Objectives

• Smooth paviors can become slippery and/or crack in inclement weather in a rural location.

Conclusion/Recommendations

• Use of paving is essential to the creation of a pedestrian and cycle facility. It is considered that the standard construction materials (in-situ concrete) for the shared facility path would be appropriate given the rural location, use of material for existing path at existing houses, etc as well as for general durability and strength.

• It is recommended where louth bank walls are realigned, a stone wall (to industry standard TII specifications) be considered which would provide visual amenity, a durable boundary in accordance with similar schemes constructed within the county.