KILDARE COUNTY COUNCIL

Comhairle Contae Chill Dara

An Bord Pleanala Section 177AE Application

for the Remediation of Monasterevin Bridge

Monasterevin, County Kildare

An Bord Pleanala Section 177AE Application for the Remediation of Monasterevin Bridge, Monasterevin, County Kildare

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AN BORD PLEANALA SECTION 177AE APPLICATION FOR THE REMEDIATION OF MONASTEREVIN BRIDGE, MONASTEREVIN, CO. KILDARE

JANUARY 2021

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1 INTRODUCTION

This report provides information to facilitate an An Bord Pleanala Section 177AE Assessment under the Planning and Development Act, 2000, (as amended) for proposed remediation works to the Monasterevin Bridge in Monasterevin, Co Kildare. The Monasterevin Bridge is located within the River Barrow and River Nore SAC. The River Barrow and River Nore SAC (site code 002162) is selected for alluvial wet woodlands and petrifying springs, priority habitats on Annex I of the E.U. Habitats Directive, 1992. The site is also selected as a SAC for old oak woodlands, floating river vegetation, estuary, tidal mudflats, Salicornia mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs, all habitats listed on Annex I of the E.U. Habitats Directive. As well as habitats, the SAC has been selected due to the presence of invertebrate, fish and mammal species which are listed under Annex II of the EU Habitats Directive, including freshwater pearl mussel, freshwater crayfish, Atlantic salmon, twaite shad, the three Irish Lamprey species - sea, brook and river, the Desmoulin's whorl snail and Eurasian otter.

The Monasterevin Bridge, which was constructed over the river barrow c.1832. It is a five-arch structure, constructed of elliptical cut-stone barrel vaults the with semi-circular buttressing, the piers are built on circular cutwaters. The piers are of fine cut ashlar blocks with the arch's formed of cut-stone voussoirs. The parapet walls consist of coursed stone with a cut-stone coping. The underside of each of the arches are gunited. The bridge is in need of maintenance/ remediation works.

The bridge is noted in the National Inventory of Architectural Heritage as having regional importance based upon its architectural, historical, social and technical heritage interest values. The proposed work is necessary to repair scour induced damage to the bridge structure. Work will restore the masonry structure and reinstate the concrete cutwater protection. The alterations proposed require localised invasive work but these have been designed to minimise impact both visual and physical using appropriate materials compatible with the historic masonry structure. The proposed works will not have an adverse impact on the heritage special interest value of the protected structure.

To ensure the serviceability of the structure as part of the road's infrastructure within County Kildare, the following rehabilitation works are proposed:

- Remedial repair works to piers and cutwater : Works will require removal of defective sections of the concrete cutwater, dismantling displaced masonry, grouting voids, reinstatement of displaced masonry and renewal of concrete cutwater
- Localised vegetation removal and pointing of opening joint\ Dismantling will be carried out to remove embedded roots
- Rock armour protection to the east embankment of the river

Planning policies as set out in Section 3 of this report have been adhered to as part of the project lifecycle.

This application follows Kildare County Councils legal obligation to carry out an Appropriate Assessment for the proposed scheme. As mitigation measures are required for the proposed bridge remediation works in order to prevent adverse impacts on the Natura 2000 network an Article 6 Appropriate Assessment is required under the Habitats Directive (92/43/EEC). A Natura Impact Statement (NIS) was completed by Ecofact Environmental Consultants in March 2020 and a copy of the report is contained in Appendix C.

2 PROJECT PARTICULARS

2.1 Client

Kildare County Council

Áras Chill Dara,

Devoy Park,

Naas,

Co Kildare.

W91 X77F

2.2 Design Team/ Engineer

O'Connor Sutton Cronin & Associates

9 Prussia Street,

Dublin 7.

D07 KT57

2.3 Project supervisor design process (PSDP)

O'Connor Sutton Cronin & Associates

9 Prussia Street,

Dublin 7.

D07 KT57

3 PLANNING CONTEXT

3.1 Kildare County Development Plan 2017-2023 (as varied) and Monasterevin Local Area Plan 2016-2022

3.1.1 Land-Use Zoning

It is noted that Monasterevin Bridge is located between the zones within the administrative are of Kildare County Council. We refer to the Kildare County Development Plan 2017-2023 (as varied) and Monasterevin Local Area Plan 2016-2022 in this instance.

Monasterevin Bridge is located within the development boundary for the Monasterevin Local Area Plan 2016-2022. As such, it is subject to the policies and objectives set out therein. The bridge is not show in the Plan as being zoned but is surrounded by lands zoned Town Centre (A) "*To provide for the development and improvement of appropriate town centre uses including retail, commercial, office, residential, amenity and civic use*" and Open Space & Amenity (F) "*To protect and provide for recreation, open space and amenity provision*".

3.1.2 Built Heritage Considerations

Monasterevin Bridge is listed as a protected structure in the Monasterevin Local Area Plan (RPS No. B26-38). The bridge is also recorded on the National Inventory of Architectural Heritage (NIAH No. 11816057 refers).

The following policies of the Kildare County Plan are applicable to Monasterevin Bridge:

PS 1 - "*Conserve and protect buildings, structures and sites contained on the Record of Protected Structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest*"

PS 2 - "*Protect the curtilage of protected structures or proposed protected structures and to refuse planning permission for inappropriate development within the curtilage or attendant grounds of a protected structure which would adversely impact on the special character of the protected structure including cause loss of or dam-age to the special character of the protected structure and loss of or damage to, any structures of architectural heritage value within the curtilage of the protected structure. Any proposed development within the curtilage and/or*

attendant grounds must demonstrate that it is part of an overall strategy for the future conservation of the entire built heritage complex and contributes positively to that aim."

PS 7 - "*Promote best practice and the use of skilled specialist practitioners in the conservation of, and any works to, protected structures. Method statements should make reference to the DAHG Advice Series on how best to repair and maintain historic buildings. As outlined in the Architectural Heritage Protection Guidelines, DAHG, a method statement is a useful tool to explain the rationale for the phasing of works. The statement summaries the principal impacts on the character and special interest of the structure or site and describe how it is proposed to minimise these impacts. It may also describe how the works have been designed or specified to have regard to the character of the architectural heritage.*"

PS 11 - "*Promote the maintenance and appropriate re-use of buildings of architectural, cultural, historic and aesthetic merit which make a positive contribution to the character, appearance and quality of the streetscape or landscape and the sustainable development of the county. Any necessary works should be carried out in accordance with best conservation practice.*"

PS 12 – "*Protect the protection of original or early building fabric including timber sash windows, stonework, brickwork, joinery render and slate. Likewise, the Council will encourage the re-instatement of historically correct traditional features.*"

PS 16 – "*Protect and retain important elements of the built heritage including historic gardens, stone walls, landscapes and demesnes, and curtilage features.*"

PS 19 - "*Have regard where appropriate to DAHG Guidelines and conservation best practice in assessing the significance and conservation of a Protected Structure, its curtilage, demesne and setting.*"

PS 20 - "*Have regard where appropriate to DAHG Guidelines and conservation best practice in assessing the impact of development on a Protected Structure, its curtilage, demesne and setting.*"

Architectural Conservation Areas Policies:

ACA 2 - "*Ensure that any development, modifications, alterations, or extensions within an ACA are sited and designed appropriately and are not detrimental to the character of the structure or to its setting or the general character of the ACA and are in keeping with any Architectural Conservation Area Statement of Character Guidance Documents prepared for the relevant ACA*".

ACA 3 - "*Have regard to DAHG Guidelines and conservation best practice in assessing the significance of a historic town or urban area and the formulation of an ACA or in assessing development proposals relating to an ACA*".

The following policies and objectives of the Monasterevin Local Area Plan 2016-2022 are applicable to the Monasterevin Bridge:

Protecting and enhancing Monasterevin's significant and unique built heritage is one of the core objectives of the Local Area Plan. Heritage Protection Policies & Objectives contained within the Local Area Plan of relevance include the following:

Monasterevin LAP Architectural Heritage Policies

BH 1 - "*To protect the historic core of the town in particular on West End, Main Street and Drogheda Street and to resist the demolition of vernacular architecture of historical, cultural and aesthetic merit, which make a positive contribution to the character, appearance and quality of the local streetscape and the sustainable development of Monasterevin*".

BH 3 - "*To protect and preserve buildings and the spaces between structures that create a distinctive character in the proposed ACA. Improvements to historic buildings and the public realm will consolidate and protect this asset"*.

BH 4 - "*To protect and preserve those built heritage items listed in Table 14 and shown on Maps 4(A) and 4(B) of this Local Area Plan".*

Monasterevin LAP Architectural Heritage – Objectives

It is an objective of the Council:

BHO1: To ensure that any development which may take place within the confines of Moore Abbey Demesne is carried out in a planned coherent way while sympathetic to the demesne, its boundaries and the overall historic landscape.

In response to the above policies and the impact of the proposed development on the Historic Urban Context. The proposed works will not alter the bridge structure or its contribution to the entrance character to the town. The rock armour protection proposed for the eastern embankment will remove vegetation at the river's edge. Repair and reconstruction of the existing masonry wall and maintaining the rock armour alignment at the level of the concrete cutwater to provide a planted area in front of wall will minimise it impact along the river edge. The proposed works will not adversely impact on the historic urban context and the overall setting of the bridge on the River Barrow.

In respect of the above policies and the impact of the proposed development on a protected structure. The works in this include removal alteration, addition repair and renewal. These impacts can often represent the more significant impacts as these will result in physical intervention to the structure and fabric.

The proposed work is necessary to repair scour induced damage to the bridge structure. Work will restore the masonry structure and reinstate the concrete cutwater protection. The alterations proposed require localised invasive work, but these have been designed to minimise impact both visual and physical using appropriate materials compatible with the historic masonry structure. The proposed works will not have an adverse impact on the heritage special interest value of the protected structure.

3.1.3 Natural Heritage Considerations

Monasterevin Bridge is located within the within the River Barrow and River Nore SAC (Code 002162).

Policy NH 2 of the Monasterevin Local Area Plan states the following in relation to the protection of Natura 2000 sites:

> "*To ensure that any development proposal within the vicinity of or having an effect on a designated site, or adjacent to/within an SAC provides sufficient detail illustrating how it will limit any possible impact upon the designated site and will include proposals for appropriate amelioration. All plans or projects must undergo an Appropriate Assessment Screening under Article 6 of the Habitats Directive and a full AA will be carried out where necessary. In all such cases the National Parks and Wildlife Section of the DAHG shall be consulted.*"

Policy NH 4, NH 5 and Nh 6 of the Kildare County Plan states the following in relation to the protection of Natura 2000 sites:

> NH 4 - "*Support the conservation and enhancement of Natura 2000 Sites including any additional sites that may be proposed for designation during the period of this Plan and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site.*"
>
> NH 5 - "*Prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the county and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive.*"
>
> NH 6 - "*Ensure an Appropriate Assessment, in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and with DEHLG guidance (2009), is carried out in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site to determine the likelihood of the plan or project having a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects and to ensure that projects which may give rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites will not be permitted (either individually or in combination with other plans or projects) unless for reasons of overriding public interest.*"

A Natura Impact Statement has been prepared and accompanies this Section 177AE Application. The NIS assesses the likely significant effects on the Natura Site arising from the proposed rehabilitation works. The bridge is expected to undergo remedial repair works to piers and cutwaters including the removal of defective sections of the concrete cutwater, dismantling displaced masonry, grouting voids, reinstatement of displaced masonry and renewal of concrete cutwater. The works also include localised vegetation removal and pointing of opening joints\ dismantling will be carried out to remove embedded roots. Rock armour protection to the east embankment of the river. Due to the nature of works, the instream works have the potential to result in direct water quality and disturbance impacts affecting the integrity of the Natura 2000 site.

The mitigation measures proposed are considered to be sufficient to ensure that potential impacts regarding water quality, invasive species and disturbance are minimised. From the evidence presented in the NIS, it is concluded that the potential direct, indirect and cumulative impacts that may arise from the proposed works do not have the potential to affect the integrity of the River Barrow and River Nore SAC.

The proposed works do not meet the threshold requirements for the provision of an Environmental Impact Assessment Report (EIAR) as set out in the Planning and Development Regulations 2001 (as amended) and Planning and Development Act, 2000 (as amended).

3.2 The Architectural Heritage Protection Guidelines for Planning Authorities, 2004

The following section explores the Architectural Heritage Protection Guidelines relating to proposed works to protected structures, works located within an ACA and general works to historic bridges. We reiterate that no new buildings or structures are proposed. The works include repair and maintenance of the bridge only.

3.2.1 Works to Bridges

Section 14.2 provides guidance in relation to the protection of bridges stating:

> "*There is a rich heritage of bridges throughout the country that requires careful consideration when any repair or alteration work is proposed.*"

They go on to state that:

> "*Proposals to reinforce, widen or infill sections of a bridge which is a protected structure, resulting in the concealment of any part of it, should be treated with caution. Where*

reinforcement is proven to be unavoidable, efforts should be made to ensure that the least possible structural and visual damage is caused to the bridge."

"*Proposals to reinforce, widen or infill sections of a protected bridge will require alterations to the character and quality of the structure. Where the impacts are likely to be substantial and would damage the character and integrity of the protected structure to an unacceptable extent, alternative solutions should be explored.*"

In response to the above statement, we note that the works proposed **will not conceal** any part of the bridge. The materials and palette of colours proposed will **complement and match the existing features and will not alter the character or quality of the structure**.

3.2.2 Maintenance and Repair Works

Section 19.1 provides guidance in relation to the maintenance and repair of protected structures and buildings located within ACAs.

"*Regular and correct maintenance and repair are key to the conservation of protected structures and buildings within ACAs. Without them the structures, or elements of them, may deteriorate beyond recovery. Proper repair and maintenance slow the progress of decay without damaging the character and special interest of the structure but should generally be undertaken only after establishing the cause of deterioration. Aggressive or misguided works can lead to the permanent damage of the fabric of a building. In considering routine maintenance, care should be taken to require that such works always follow conservation principles and best practice. Repair and maintenance works should not generally include the replacement of elements, except where required to make good a shortfall or to replace individual broken items.*"

Section 19.4 states the following:

"*Repairs should be carried out only after careful analysis of the problems that have led to deterioration so as to ensure that the repairs are appropriate and have a relatively long life.*"

In response to the above statements, we refer to the Preliminary Remedial Works Report accompanying this report and note the scouring and damage to the piers and cutwaters that were recorded at the bridge. The repair works include works to piers and cutwaters, localised vegetation removal and pointing of opening joints in accordance with Section 19.1 of the Guidelines.

Section 4.13.5 provides guidance in relation to exemptions pertaining to routine maintenance. The guidelines refer specifically to the maintenance of buildings, however the principle of these maintenance works can be relied upon in the example of a structure such as a bridge.

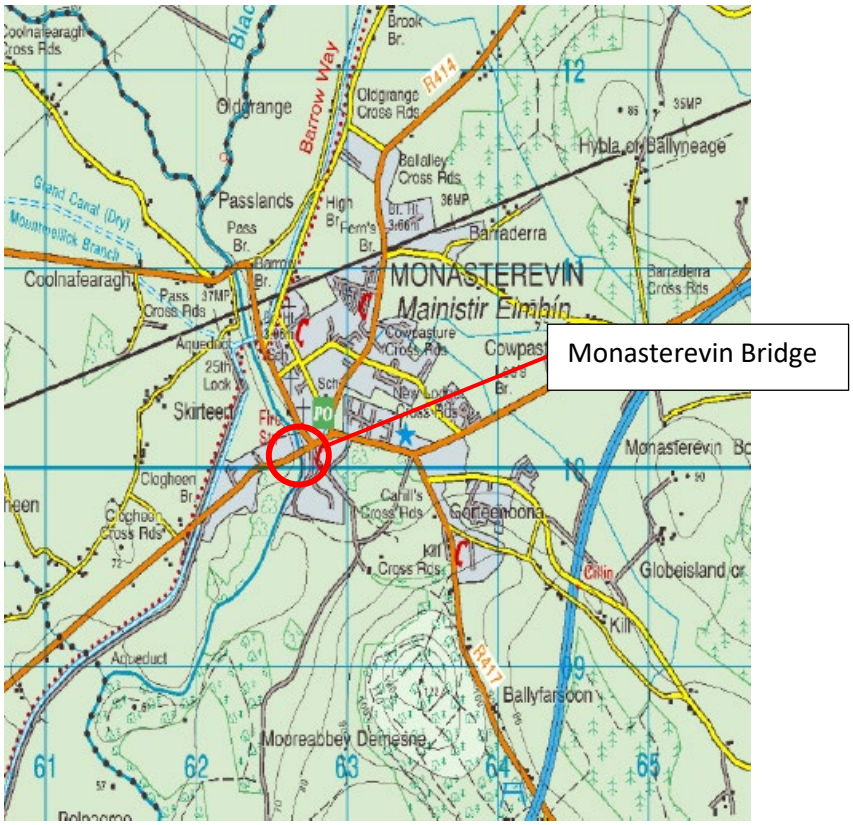
> "*Regular maintenance to keep a building weathertight; the securing but not the replacement of existing elements of windows and doors; clearance of gutters and downpipes; refixing of loose slates; repainting of previously painted surfaces; repair and maintenance works carried out in accordance with the Department of the Environment and Local Government Conservation Guidelines; minor alterations to services (but excluding the installation of major services such as lifts and air-conditioning).*"

On the basis of the above, the proposed works will not conceal any part of the bridge or damage the character or integrity of the structure. The bridge's condition was thoroughly investigated, and the deterioration found included scouring and damage to the piers and cutwaters which are proposed to be repaired and replaced, where necessary, having regard to good conservation practices. The routine maintenance which includes repair and maintenance works, vegetation removal and repointing, is considered under the Guidelines to be exempted development not requiring planning permission.

4 EXTENT OF PROPOSED WORKS

4.1 Site Location

Monasterevin Bridge is located on the main road (R445) in Monasterevin in County Kildare.



The bridge spans the main channel of the River Barrow and is currently used by vehicular/pedestrian traffic travelling on the regional road R445. The bridge is listed as a protected structure in the Monasterevin Local Area Plan (RPS No. B26-38). The bridge is also a recorded on the National Inventory of Architectural Heritage (NIAH No. 11816057 refers).

In addition to the above architectural protections, the bridge is located within the River Barrow and River Nore SAC (Code 002162).

4.1 Project Justification

The Monasterevin Bridge, which was constructed in c1832, is located at a historically pivotal location on the transport network that connected part of the wider country to Dublin. The bridge is of architectural and technical heritage interest value. The bridge's historical and social significance is a reminder of the road network development in Ireland a fine example of civil

engineering prowess and feat of the time, an important reminder of Ireland's civil engineering history and heritage.

The bridge is in need of maintenance/ refurbishment works. There is scour damage to the piers and cutwaters which is proposed to be repaired. Routine maintenance is also required which includes vegetation removal and repointing. These remedial works are necessary to prolong the design life of the bridge and ensure the serviceability of the structure as part of the road infrastructure within County Kildare.

4.2 Proposed Works Extents

A detailed inspection of the bridge was carried out by OCSC Consulting Engineers and has informed the proposed scope of works. Please refer to the "Preliminary Remedial Works Report", contained in Appendix A.

The proposal includes a range of repair and rehabilitation works to Monasterevin Bridge. The proposed works are required to prolong the service life of the aforementioned bridge.

The proposed works include the following:

- Remedial repair works to piers and cutwater: Works will require removal of defective sections of the concrete cutwater, dismantling displaced masonry, grouting voids, reinstatement of displaced masonry and renewal of concrete cutwater
- Localised vegetation removal and pointing of opening joint\ dismantling will be carried out to remove embedded roots
- Rock armour protection to the east embankment of the river

All the aforementioned details are included on the drawings contained in Appendix F.

4.3 Timescale for the Completion of the Works

The anticipated construction time for the works is approximately 2 months.

4.4 Existing Environment

Monasterevin Bridge is located on the 5th order River Barrow (EPA Segment Code: 14_10474) in the town of Monasterevin in County Kildare where the R445 road crosses the main channel of the Barrow. The bridge is located just upstream of the confluence of the 2nd order Passlands watercourse (EPA Segment Code: 14_1410) with the River Barrow. The EPA monitor biological water quality in this stretch of the River Barrow with a station located on the next bridge upstream (Station Code S14BO11000). This site was rated as being Q3-4 (Moderate) in 2017. This site is

located 1km upstream of the subject bridge site. The Monasterevein Waste water Treatment Plant is located on the right bank of the river downstream of Monasterevein Bridge.

Monasterevin Bridge is also located within the River Barrow and River Nore SAC. The River Barrow and River Nore SAC (site code 002162) is selected for alluvial wet woodlands and petrifying springs, priority habitats on Annex I of the E.U. Habitats Directive, 1992. The site is also selected as a SAC for old oak woodlands, floating river vegetation, estuary, tidal mudflats, Salicornia mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs, all habitats listed on Annex I of the E.U. Habitats Directive. As well as habitats, the SAC has been selected due to the presence of invertebrate, fish and mammal species which are listed under Annex II of the EU Habitats Directive, including freshwater pearl mussel (Margaritifera margaritifera and its hardwater form M. durrovensis), freshwater crayfish (Austropotamobius pallipes), Atlantic salmon (Salmo salar), twaite shad (Alosa fallax fallax), the three Irish Lamprey species - sea (Petromyzon marinus), brook (Lampetra planeri) and river (Lampetra fluviatilis), the Desmoulin's whorl snail Vertigo moulinsiana and Eurasian otter (Lutra lutra).

4.5 Design Drawings

Refer to the following drawings in Appendix F:

K424-OCSC-XX-XX-DR-C-0100	Monasterevin Bridge Site Location Map
K424-OCSC-XX-XX-DR-C-0101	Monasterevin Bridge Existing Layout Plan
K424-OCSC-XX-XX-DR-C-0102	Monasterevin Bridge Existing Layout Upstream Elevation
K424-OCSC-XX-XX-DR-C-0103	Monasterevin Bridge Existing Layout Downstream Elevation
K424-OCSC-XX-XX-DR-C-0104	Monasterevin Bridge Site Investigation Borehole Locations
K424-OCSC-XX-XX-DR-C-0105	Monasterevin Bridge Site Investigation Borehole Results
K424-OCSC-XX-XX-DR-C-0200	Monasterevin Bridge Existing Defects Below Road Level Plan
K424-OCSC-XX-XX-DR-C-0201	Monasterevin Bridge Photos of Existing Defects Below Road Level Plan
K424-OCSC-XX-XX-DR-C-0202	Monasterevin Bridge Existing Defects at Road Level Plan

K424-OCSC-XX-XX-DR-C-0203	Monasterevin Bridge Photos of Existing Defects at Road Level Plan
K424-OCSC-XX-XX-DR-C-0204	Monasterevin Bridge Existing Defects at Elevations
K424-OCSC-XX-XX-DR-C-0205	Monasterevin Bridge Photos of Existing Defects at Elevations
K424-OCSC-XX-XX-DR-C-0206	Monasterevin Bridge Pier and Cutwater Damage Elevations
K424-OCSC-XX-XX-DR-C-0300	Monasterevin Bridge Repair Details Sheet 1 of 5
K424-OCSC-XX-XX-DR-C-0301	Monasterevin Bridge Repair Details Sheet 2 of 5
K424-OCSC-XX-XX-DR-C-0302	Monasterevin Bridge Repair Details Sheet 3 of 5
K424-OCSC-XX-XX-DR-C-0303	Monasterevin Bridge Repair Details Sheet 4 of 5
K424-OCSC-XX-XX-DR-C-0304	Monasterevin Bridge Repair Details Sheet 5 of 5
K424-OCSC-XX-XX-DR-C-0400	Monasterevin Bridge Remedial Works Below Road Level Plan
K424-OCSC-XX-XX-DR-C-0401	Monasterevin Bridge Remedial Works at Road Level Plan
K424-OCSC-XX-XX-DR-C-0402	Monasterevin Bridge Remedial Works at Elevations

4.6 Construction Phase(s)

Should this project proceed to construction stage and given the remedial nature of the works, the construction works will be completed in accordance with the Remediation Methodology Report in Appendix G. The works required for completion of the remediation works to the bridge are as follows:

- Installation of Rock Armour protection to the downstream eastern embankment.
- Repair of the Concrete Skirt that protect the piers and cutwaters, including underpinning detail through the following steps:
    - Contractor could erect sheet piling or similar to create a dry works area around each pier. If pumping is required to dewater the works area silt bags will also be used. The site ecologist will monitor suspended solids downstream of the works
    - The Contractor will work on one pier at a time so as to not alter the flows dramatically in the other channels.

- The damaged concrete skirt shall be removed and taken back to sound material from which the new skirt can be tied into. Material shall be removed and disposed offsite.
- The masonry cutwater shall be taken down and material stored to rebuild after the installation of the concrete skirt.
- Pier voids will be grouted and this will create a solid surface from which the new cutwater will be built.
- A silt curtain will be incorporated into the temporary works to prevent the accidental discharge of any grout to the watercourse.
- Following the grouting, the remaining pier masonry shall be repaired and repointed while it is exposed.
- Dowel bars and sleeves shall be drilled through one side of the existing masonry pier and out the other side.
- With the dowel bars set in place the reinforcement for the concrete skirt can be fixed tying into the existing concrete skirt.
- Shuttering to be erected and concrete poured. Raw or uncured waste concrete will be removed from the construction site and disposed of in accordance with the relevant waste management legislation. Wash down water from concrete trucks, cast in situ concrete etc. will be collected in a suitable containment structure and then taken off-site for appropriate disposal.
- Once the concrete has cured the cutwater will be re-erected and tied into the existing masonry pier.
- Following completion of the remedial works to the pier any debris or materials used as part of the remedial works will be removed from the works area and any disturbance to the riverbed reinstated.
- The sheet piling or other temporary works will be removed from around the pier and the normal flow returned to the channel prior to moving onto the next pier and the same process as detailed above carried out on each of the remaining piers in turn.

- De-vegetation and repointing of masonry where there is a loss of mortar in the joints and vegetation growing between the units.
- The repointing and vegetation removal will be carried out on each pier at the same time as the underpinning works so as to make use of the existing protection measures that will be in place.

4.7 Emissions/ Discharges During Construction

No discharges or emissions to land or river will be arising from the proposed works.

4.8 Operations Phases

There are no operational requirements for the proposed works, aside from routine maintenance.

4.9 Mitigation Measures

The main mitigation measures are as set out in the Remediation Methodology Report (Appendix G) and stated in section 4.6. In addition to which a site ecologist will be appointed for the duration of the works. The site ecologist will work with the contractor to ensure that their site-specific method statement complies with the relevant mitigation measures necessary to protect the qualifying interests of the Natura 2000 site as set out in the remediation methodology report and Table 1 of the NIS.

4.10 Flood Risk Assessment

The proposed remedial works will not have any impact upon the freshwater courses within the vicinity of the works. The proposed works will not give rise to any flooding or impact adversely upon adjoining lands.

4.11 Hydrological/ Hydrogeological Impact

The proposed remedial works will not have any hydrological or hydrogeological impact upon the site location.

4.12 Assessment of Landscape Status and Visual Impact

Given that no new structures or buildings are proposed, and the height of the bridge will remain as per the existing condition, no visual impact will occur. The height, form, scale and/or ridgeline of the bridge will not be altered as a result of the proposed works. Similarly, the materials and conservation methods proposed will ensure the integrity and character of the bridge and wider area is maintained.

5 LIAISON WITH STAKEHOLDERS AND PRESCRIBED BODIES

As part of its obligations, Louth County Council has consulted with various stakeholders during the design phase of these works.

Prior to this Section 177AE Application, the following statutory bodies provided information via publicly available sources.

- National Parks and Wildlife Service (NPWS)
- Inland Fisheries Ireland (IFI)
- Environmental Protection Agency
- Kildare County Council

The following prescribed Bodies will be formally notified of this application:

- Department of Agriculture and the Marine,
- Department of Housing, Local Government and Heritage,
- Department of Climate Action, Communication Networks and Transport,
- National Parks and Wildlife Service,
- Department of Media, Tourism, Arts, Culture, Sports and the Gaeltacht,
- Inland Fisheries Ireland,
- Office of Public Works,
- An Taisce, and
- The Heritage Council.

6 SITE RULES & RESTRICTIONS

6.1 Site Rules

The following is a non-exhaustive list of specific site rules which are to be developed by the successful tenderer:

- Mandatory that all site personnel have a valid Safe Pass.
- All staff to be inducted on the Health and Safety and Environmental issues.
- Control of access to the site and the prevention of unauthorised entry.
- Arrangements for personal protection measures for employees, visitors and other Contractors and sub-contractors.
- Arrangements for spillages.
- Arrangements for training of employees in health, safety and welfare at work and how to deal with environmental issues.
- Arrangements to ensure that other contractors and sub-contractors provide evidence of their health and safety and environmental policies to ensure compliance with site rules.
- Arrangements for ensuring that all visitors to site comply with the site rules.
- Emergency procedures to deal with accidents.
- Contractor will be required to put in place systems to address the affects resulting from COVID-19, including but not limited to adherence to Government and HSE Guidelines.

6.2 Site Restrictions

The following site restrictions will apply at Monasterevin Bridge:

- No item of plant or equipment (including stores or offices) shall be placed or parked in the SAC
- Works will take place outside the salmonid close season.
- Works will not be undertaken during hours of darkness to avoid disturbance of Otter foraging and commuting.
- Works will be undertaken outside the lamprey spawning season.
- <u>Restrictions on Working Hours</u>

  Normal working hours are as follows but cognisance should be given to tidal conditions which will restrict available working hours:

  0800 - 1800 hrs Monday-Friday

  0800 - 16.30 hrs Saturday

- Restrictions on Access

  The Contractor shall ensure that access to and from all properties adjoining the site shall not be unreasonably restricted during the construction works. The maintenance of access shall be the responsibility of the principal contractor.

7 UNFORSEEN CIRCUMSTANCES

Where unforeseen circumstances arise, the environmental issues arising must be submitted to the Employers Representative and Site Ecologist as soon as possible after the event.

Where unforeseen circumstances causing significant design changes the environmental implications arising are to be submitted to the Designers and the Employers Representative. Changes in design can only be implemented by the written approval of the Employers Representative prior to commencement of any works affected by the change in design.

Environmental issues arising during the course of construction from design changes, control measures, unsafe practices, incidents and accidents, amendments to the contractors Environmental Plan and information for the Safety and Health File will be examined at site meetings.

Any significant alteration to the scope of the works, for whatever reason, must be vetted by the Employers Representative. Any hazard discovered but not removed during the construction period must be recorded and a copy of the records sent to the Project Supervisor Design Process as soon as possible and in any case before Practical Completion.

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APPENDIX A. PRELIMINARY REMEDIAL WORKS

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APPENDIX B. AA SCREENING

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APPENDIX C. NATURA IMPACT ASSESSMENT

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APPENDIX D. BIODIVERSITY ASSESSMENT

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APPENDIX E. ENVIRONMENTAL IMPACT ASSESSMENT SCREENING

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APPENDIX F. DESIGN DRAWINGS

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APPENDIX G. REMEDIATION METHODOLOGY REPORT

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APPENDIX H. ARCHITECTURAL HERITAGE IMPACT ASSESSMENT REPORT