

KILDARE COUNTY COUNCIL
Comhairle Contae Chill Dara



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

**An Bord Pleanála Section 177AE Application for the
Remediation of Brooke Bridge,
Monasterevin, County Kildare**

K424-OCSC-XX-XX-RP-PL-0010

JOB No: K424

April 2021

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

APRIL 2021

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1 INTRODUCTION

This report provides information to facilitate an An Bord Pleanála Section 177AE Assessment under the Planning and Development Act, 2000, (as amended) for proposed remediation works to the Brooke Bridge in Monasterevin, Co Kildare. The Brooke Bridge carries the L7049 local road over a River (name unknown), North of Monasterevin, Co Kildare. The watercourse travels in a westerly direction, goes under the Barrow Navigation Canal and then joins the Figle River 660m to the west of the bridge. It should be noted that 884m downstream of this connection with the Figle River, the River Barrow and River Nore SAC commences. There is therefore a direct pathway from the works to this 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 Brooke Bridge, (constructed date unknown), is a single span masonry arch structure. The bridge spans a length of 3.2m in total with a maximum width of 6.35m. The arch facing walls, parapets and spandrels are rubble and square cut limestone while the arch barrel is made up of rubble masonry. The bridge is in need of maintenance/ remediation works.

It is noted that Brooke bridge is not listed on Kildare County Councils Record of Protected Structures or the National Inventory of Architectural Heritage. As such, it does not have any importance in respect of its architectural, historical, social and technical heritage interest values. In addition, 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 materially alter the character of the structure.

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

- Replacement of soft grass verges with concrete rubbing strips
- Installation of stainless-steel drainage integrated into concrete rubbing strip
- Raising of the existing road surface above the arch barrel by circa 100mm
- De-vegetation of parapet/spandrel walls and repointing of joints as a result
- Repair of missing/ damaged sections of the parapet wall and copping
- De-vegetation of embankments
- Replacement of masonry in abutments and arch barrel including repointing of joints
- Stitch repair to crack in abutment and arch barrel
- Installation of fencing
- Removal of material that has built up in the riverbed upstream, bridge span and downstream.

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 Altemar Marine and Environmental Consultancy in April 2021 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 Brooke Bridge is located between the zones within the administrative area of Kildare County Council. We refer to the Kildare County Development Plan 2017-2023 (as varied) in this instance.

Brooke Bridge is located outside the development boundary for the Monasterevin Local Area Plan 2016-2022. As such, it is only subject to the policies and objectives set out in the Kildare County Development Plan 2017-2023. The bridge is not shown in the Plan as being zoned.

3.1.2 Built Heritage Considerations

While Brooke Bridge is not listed as a protected structure in the Kildare County Development Plan or recorded on the National Inventory of Architectural Heritage, the County Plan reverts to the Architectural Protection Guidelines for Planning Authorities in relation to works to historic and protected structures.

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 damage 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 summarises 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.”

We refer to Section 3.2 of this report for more information in respect how the Architectural Heritage Protection guidelines relate to general works to historic bridges.

3.1.3 Natural Heritage Considerations

The watercourse upon which Brooke Bridge is located is approximately 1.5m wide. It is not identified on Ordnance Survey of Ireland Discovery mapping or on the EPA Waterframework Directive geospatial dataset for rivers and streams. The watercourse travels in a westerly direction, goes under the Barrow Navigation Canal and then joins the Figile River 660m to the west of Brooke bridge. It should be noted that 884m downstream of this connection with the Figile River, the River Barrow and River Nore SAC commences (Figure 6). As such there is a direct pathway from the works to this SAC.

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 project is limited in scale and extent and the potential zone of influence is restricted to the immediate vicinity of the proposed development with potential for downstream impacts. As noted, the River Barrow and River Nore are downstream from the works

with a direct pathway. Works are proposed on a bridge that lies over a stream with a direct pathway to this SAC. In addition, instream works are proposed which involves the removal of silt in the bed of the stream. This may cause considerable resuspension of particulate material with the potential for significant downstream effects on the SAC in the absence of mitigation measures. In the absence of mitigation significant effects cannot be ruled out on the aquatic/instream features of interest of this SAC that are located downstream of the works.

In a strict application of the precautionary principle, it has been concluded that significant effects on the River Barrow and River Nore SAC likely from the proposed works in the absence of mitigation measures. For this reason, a NIS was carried out to assess whether the proposed project, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European Site. All other Natura 2000 sites were screened out at initial screening.

Following the implementation of the mitigation measures outlined in the NIS, the proposed project would not be deemed to have a significant impact. No significant impacts are likely on Natura 2000 sites, alone in combination with other plans and projects based on the implementation of mitigation measures.

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 general works to protected structures 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 Principle (sic) Bridge Inspection Report accompanying this report and the Remediation Methodology for Brooke Bridge that noted the damage to the parapets and arch barrel that were recorded at the bridge. The repair works include

masonry repair and repointing of the parapets, crack stitching to the masonry arch barrel and 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 damage to the parapets and arch barrel which are proposed to be repaired, 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

Brooke Bridge is located on the local road (L7049) North of Monasterevin in County Kildare.



Brooke Bridge spans an un-named river which is approximately 1.5m wide and is used by vehicular/pedestrian traffic travelling on the local road L7049. The bridge is not listed as a protected structure or on the National Inventory of Architectural Heritage. While not located within an SAC or SPA, the bridge is located circa 1.1km (1.5km via watercourse) from the River Barrow and River Nore SAC (Code 002162).

4.2 Project Justification

The Brooke Bridge, date of construction is unknown, however it is evident on the 6-inch ordnance survey maps from 1837 – 1842. It is a historical bridge in need of maintenance/ refurbishment works. There is damage to the bridge parapets and cracking to the arch barrel that extends to the abutment 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.

4.3 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 "Remediation Methodology Report", contained in Appendix G.

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

The proposed works include the following:

- Replacement of soft grass verges with concrete rubbing strips
- Installation of stainless-steel drainage integrated into concrete rubbing strip
- Raising of the existing road surface above the arch barrel by circa 100mm
- De-vegetation of parapet/spandrel walls and repointing of joints as a result
- Repair of missing/ damaged sections of the parapet wall and copping
- De-vegetation of embankments
- Replacement of masonry in abutments and arch barrel including repointing of joints
- Stitch repair to crack in abutment and arch
- Installation of fencing
- Removal of material that has built up in the riverbed upstream, bridge span and downstream

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

4.4 Timescale for the Completion of the Works

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

4.5 Existing Environment

Brooke Bridge is located on an un-named watercourse approximately 1.5m wide. The watercourse travels in a westerly direction, goes under the Barrow Navigation Canal and then joins the Figile River 660m to the west of the bridge. 884m downstream of this connection with the Figile River, the River Barrow and River Nore SAC commences, as such there is a direct pathway from the works to this 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*).

4.6 Design Drawings

Refer to the following drawings in Appendix F:

K424-OCSC-Z1-XX-DR-C-0100	Brooke Bridge Site Location Map
K424-OCSC-Z1-XX-DR-C-0101	Brooke Bridge Existing Layout Plan
K424-OCSC-Z1-XX-DR-C-0102	Brooke Bridge Existing Layout Upstream Elevation
K424-OCSC-Z1-XX-DR-C-0103	Brooke Bridge Existing Layout Downstream Elevation
K424-OCSC-Z1-XX-DR-C-0200	Brooke Bridge Existing Defects at Road Level Plan
K424-OCSC-Z1-XX-DR-C-0202	Brooke Bridge Existing Defects Below Road Level Plan
K424-OCSC-Z1-XX-DR-C-0204	Brooke Bridge Existing Defects at Elevations
K424-OCSC-Z1-XX-DR-C-0300	Brooke Bridge Remedial Works at Road Level Plan
K424-OCSC-Z1-XX-DR-C-0301	Brooke Bridge Remedial Works Vertical Alignment
K424-OCSC-Z1-XX-DR-C-0302	Brooke Bridge Remedial Works Below Road Level Plan
K424-OCSC-Z1-XX-DR-C-0303	Brooke Bridge Remedial Works at Elevation Upstream Elevation
K424-OCSC-Z1-XX-DR-C-0304	Brooke Bridge Remedial Works at Elevation Downstream Elevation
K424-OCSC-ZZ-XX-DR-C-0001	Brooke Bridge Repair Detail Vegetation Removal
K424-OCSC-ZZ-XX-DR-C-0002	Brooke Bridge Repair Details Masonry Repointing

K424-OCSC-ZZ-XX-DR-C-0003	Brooke Bridge Repair Details Missing Masonry Replacement
K424-OCSC-ZZ-XX-DR-C-0004	Brooke Bridge Repair Details Masonry Parapet Wall Repair
K424-OCSC-ZZ-XX-DR-C-0005	Brooke Bridge Repair Details Masonry Structure Repair
K424-OCSC-ZZ-XX-DR-C-0006	Brooke Bridge Repair Details Concrete Rubbing Strip
K424-OCSC-ZZ-XX-DR-C-0007	Brooke Bridge Repair Details – Integrated Stainless-Steel Drain in Concrete Rubbing Strip
K424-OCSC-ZZ-XX-DR-C-0008	Brooke Bridge Repair Details – Existing Surface Tie-In to Concrete Rubbing Strip
K424-OCSC-ZZ-XX-DR-C-0009	Brooke Bridge Repair Details Existing Surface to New Road Surface Tie In
K424-OCSC-ZZ-XX-DR-C-0010	Brooke Bridge Repair Details Replacement of Damaged Road Surface
K424-OCSC-ZZ-XX-DR-C-0011	Brooke Bridge Repair Details Typical Road Build Up
K424-OCSC-ZZ-XX-DR-C-0012	Brooke Bridge Repair Details Concrete Canvas Installation
K424-OCSC-ZZ-XX-DR-C-0013	Brooke Bridge Repair Details Stitch Repair to Crack in Abutment/ Arch Barrel

4.7 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:

- De-vegetation and Repointing of Masonry - In order to mitigate debris entering the watercourse, the contractor will install a sealed working platform – ‘CRASH DECK’, fully boarded out and effectively screened and sealed on all edges to ensure that no products enter the watercourse. A filtration membrane will be installed on the scaffold/ crash deck to capture particles and prevent them from entering the river/ watercourse. This crash deck system will be installed around the areas to be repointed and stitch repaired

- Debris will be removed from the crash deck at the end of each working day to avoid the build-up of material on the crash deck. During the cleaning works the Contractor must use a filtration membrane on the scaffold/ crash deck to capture particles and prevent them from entering the river/ watercourse.
- This crash deck shall also remain in place during the completion of the crack stitching to the masonry arch.
- De-vegetation and repointing of masonry where there is a loss of mortar in the joints and vegetation growing between the units.
- Once the in-stream element of the works has been completed, the out of stream associated works will commence in the following order.
- Masonry repair to the existing masonry parapets and their copings.
- Excavation of the existing grass verges and construction of the concrete 'rubbing strips' with integrated stainless-steel drainage in their place.
- Planning out of the existing road surface course, laying of regulating course to the road and raising the existing road surface by circa 100mm.
- Installation of fencing at the ends of the parapets.

4.8 Emissions/ Discharges During Construction

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

4.9 Operations Phases

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

4.10 Mitigation Measures

The main mitigation measures are as set out in the Remediation Methodology Report (Appendix G) and stated in section 4.7. 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 5 of the NIS.

4.11 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.

4.12 Hydrological/ Hydrogeological Impact

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

4.13 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, Kildare 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 Brooke Bridge:

- No item of plant or equipment (including stores or offices) shall be placed or parked in the water course
- 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.
- Restrictions on Working Hours

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.



APPENDIX A. PRINCIPLE BRIDGE INSPECTION REPORT



APPENDIX B. AA SCREENING



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