



Method Statement for works to the Menai Bridge 2025

for

UK Highways

13 November 2024

ECO_1154



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1. INTRODUCTION

1.1 Description of brief

1.1.1 Ecoscope Ltd were commissioned to provide a method statement for proposed works to the Menai Bridge over the period 2022 - 2026.

1.1.2 The project will include:

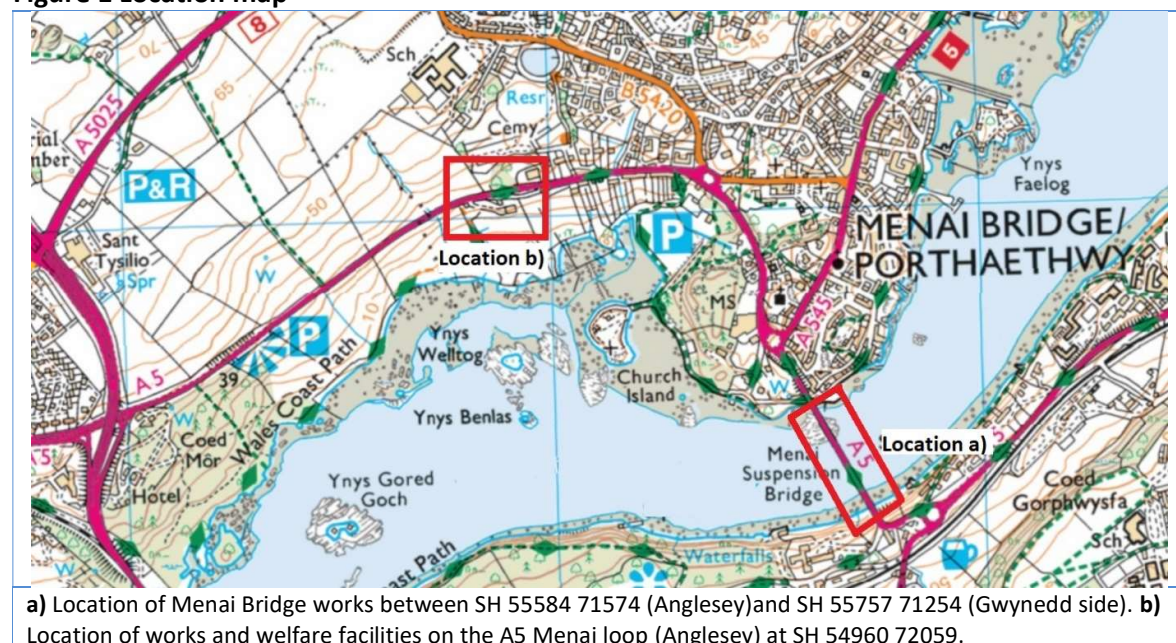
1. an ecological desktop survey;
2. an assessment of the environmental mitigation measures;
3. Marine Licensing application.

1.1.3 On-site works began in March 2022 and are anticipated to finish early 2026.

1.2 Location of works

1.1.1 The proposed works to the Menai Bridge will be undertaken at the location shown in Figure 1 Location (a), with the proposed location for off-site works in Figure 1 Location (b)

Figure 1 Location map



2. METHOD STATEMENT

2.1 Desk study

2.1.1 The proposed works will have the potential to directly affect the protected sites listed in Table 1.

Table 1 Protected Sites and their Qualifying Features

NAME	CLASSIFICATION	SUMMARY OF QUALIFYING FEATURES	AREA	DISTANCE
Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay	SAC	• Tideswept rocky shore community; • Lichen communities above tideline; • Tideswept oarweed communities (with ascidians); • Overhanging rock communities; • Sheltered muddy gravel communities; • Diving and wading birds; • Otter	26,501 Ha	0
Glannau Porthaethwy	SSSI	• Sandbanks which are slightly covered by sea water all the time; • Mudflats and sandflats not covered by seawater at low tide; • Reefs; • Large shallow inlets and bays; • Submerged or partially submerged sea caves; • Additional marine features included in designation but not reason for it.	67 Ha	0
Traeth Lavan / Lavan Sands & Conwy Bay	SPA	• Oystercatcher; • Red-breasted Merganser; • Curlew; • Great crested Grebe; • Redshank.	2,703 Ha	5.2 Km
Liverpool Bay / Bae Lerpwl	SPA	• Red-throated Diver; • Little Gull; • Common Scoter; • Little Tern; • Common Tern.	252,757 Ha	10.3 Km

3. SCOPE OF WORKS AND MITIGATION

3.1 General Protection and Risk Mitigation

- 3.1.1 All waste shall be disposed of in an appropriate covered skip and removed from site by a licensed waste carrier.
- 3.1.2 All plant to be checked upon arrival to site and at a minimum weekly inspection carried out by a competent person. All plant to be visually inspected prior to use daily. Site Manager/ Works Manager will also be required to undertake a weekly site safety inspection - this will include ALL plant visually inspected, environmental spill kits/ fire extinguishers, fencing, temp works, worksite etc. The Project Manager will do a minimum of 1 full site safety audit at a minimum bi-monthly. All of the measures below will be briefed as part of the Site Induction and MS Briefing as well as highlighted as a risk during the daily briefings. Due to the location of the Strait, conditions of the Marine Licence are integrated into the RAMS and daily briefings as well as undertaking TBT on the Environment.
- 3.1.3 Plant nappies and spill kits shall be provided for all hydraulic and diesel / petrol powered plant / equipment.
- 3.1.4 All tools, equipment and materials used when working at height shall be suitably secured with lanyards to prevent falling objects into the Strait or surrounding environment. The platforms shall be fully encapsulated with integral handrail and kickboards to the perimeter preventing material loss into the Strait.
- 3.1.5 Traffic management in the form of a single lane closure across the full length of the bridge will likely be in place throughout the duration of the project, across all schemes. One footway shall be closed, and one footway will always be open to the public.
- 3.1.6 All large plant – e.g. compressors will have both an internal bunded tank and in some cases an external fuel tank - also bunded. All static plant - as described above - that cannot be refuelled away from the main span - is also protected with

plant nappy/ fuel boom. Drainage holes in the deck will be sealed along with siting static plant as far from the drainage holes as possible. Any non- static plant will be refuelled in a designated re-fuelling area on the approaches to the structure - here we will have plant nappies, spill kits, fire extinguisher/ call station as well as terram/ sandbags at the nearest drainage gulley/ outlet to prevent fuel/ oil spills entering the drainage/ watercourse. We will also where possible encourage the use of alternative fuelled plant and bio-fuels and oils.

- 3.1.7 A fuel bowser will be located on site for the plant - this is normally 2000litres in a double bunded unit so if the tank is ruptured there is adequate capacity in the bund for the fuel. The bowser will not be located on the bridge
- 3.1.8 Any loose fuel cans will be stored in the COSHH store – off the bridge - the COSHH store will contain a bund with grillage on top for the cans/ fuel/ paint/ COSHH containers to prevent anything escaping.
- 3.1.9 For the static Plant – a compressor with 2000l capacity of fuel will be required on the bridge.
- 3.1.10 Plant shall be refuelled every few weeks rather than daily, refuelling is by tanker delivery thus eliminating/ reducing the risk of spills with multiple smaller fill ups.
- 3.1.11 The mobile plant/ welfare fuel tank will not be located on the bridge.

The following Band 3 requirements will also be complied with:

- 1. All equipment, temporary structures, access tracks, waste and/or debris associated with the works will be removed on completion of the works.
- 2. Bunding, storage facilities and spill kits will be employed to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment.
- 3. Plant, vehicles and machinery will not be refuelled on the foreshore.
- 4. Coatings and treatments will be suitable for use in the marine environment and are used in accordance with best environmental practice.

5. All equipment, materials, machinery and PPE used will be in a clean condition prior to their arrival on site, and upon removal from site, to minimise risk of introducing non-native species into the marine environment.
6. In the event of removal of any sensitive species or habitat designated by NRW under Schedule 7 of the Environment (Wales) Act 2016, no further removals will occur at that location or within 20m of that location.

3.2 Specific Work Scope Mitigations

3.2.1 There are six principal aspects to the works covered by this Method Statement:

1. Corbel strengthening and repairs
2. Parapet repairs and painting
3. Mainspan deck bearing inspections
4. Mainspan/ Tower walkway underdeck painting
5. Lighting Scheme

3.2.2 The following section outlines specific work streams and mitigations of risk. See Sketch in Appendix A for specific Site Locations – indicated in Brackets below.

3.3 Corbel Strengthening and Parapet Repair Works(1&2)

3.3.1 These works involve replacement of parapet fixing nuts followed by concrete repair and strengthening works to selected supporting concrete beams.

3.3.2 The repair work involves breaking out and replacement of isolated areas of concrete on the corbels, replacement / repair to internal reinforcement, installation of small steel strengthening brackets and associated fixings.

3.3.3 Access to the corbels shall be gained using rope access techniques, as well as with the use of the bespoke encapsulated platform.

3.3.4 The concrete removal works will be wetted during cutting or breaking to prevent the release of dust into the environment.

- 3.3.5 Wherever required, suitable encapsulation shall be erected around the worksite to ensure all concrete arisings and dust, as well as small areas of locally removed paint are captured; encapsulation shall be designed to contain overspill and splashes of new grout and concrete.

3.4 Painting scheme (underdeck and parapet painting) (2&5)

- 3.4.1 These works involve surface preparation and painting of various steelwork elements on the bridge superstructure; methods of preparation include: scraping away loose paint, mechanical preparation, quill blasting and open grit blasting.
- 3.4.2 This scope will require various forms of complex access on the bridge, including: bespoke encapsulated platforms to access the parapets and underdeck; and bespoke under-deck platform access to the soffits of the tower footways.
- 3.4.3 Some working platforms will be delivered to site on a floating vessel to facilitate installation.
- 3.4.4 All surface preparation, blasting and painting works shall be undertaken within an encapsulated enclosure suitable for the operation.
- 3.4.5 The encapsulation shall ensure that no blast media, paint, waste or other potentially harmful byproduct of the operation is released into the environment.
- 3.4.6 All waste, unused paint, disposable PPE and cleaning equipment shall be disposed of in an appropriate COSHH skip.

3.5 Deck bearing access (3)

- 3.5.1 This scope will require access from the bridge involving a bespoke under-deck platform access to the mainspan bearings to the Anglesey and Bangor Towers.
- 3.5.2 Some working platforms will be delivered to site on a floating vessel to facilitate installation.

- 3.5.3 The encapsulation shall ensure that no materials from the breaking into the bearing shelf for inspection or repair materials or other potentially harmful byproduct of the operation is released into the environment.

3.6 Lighting (6)

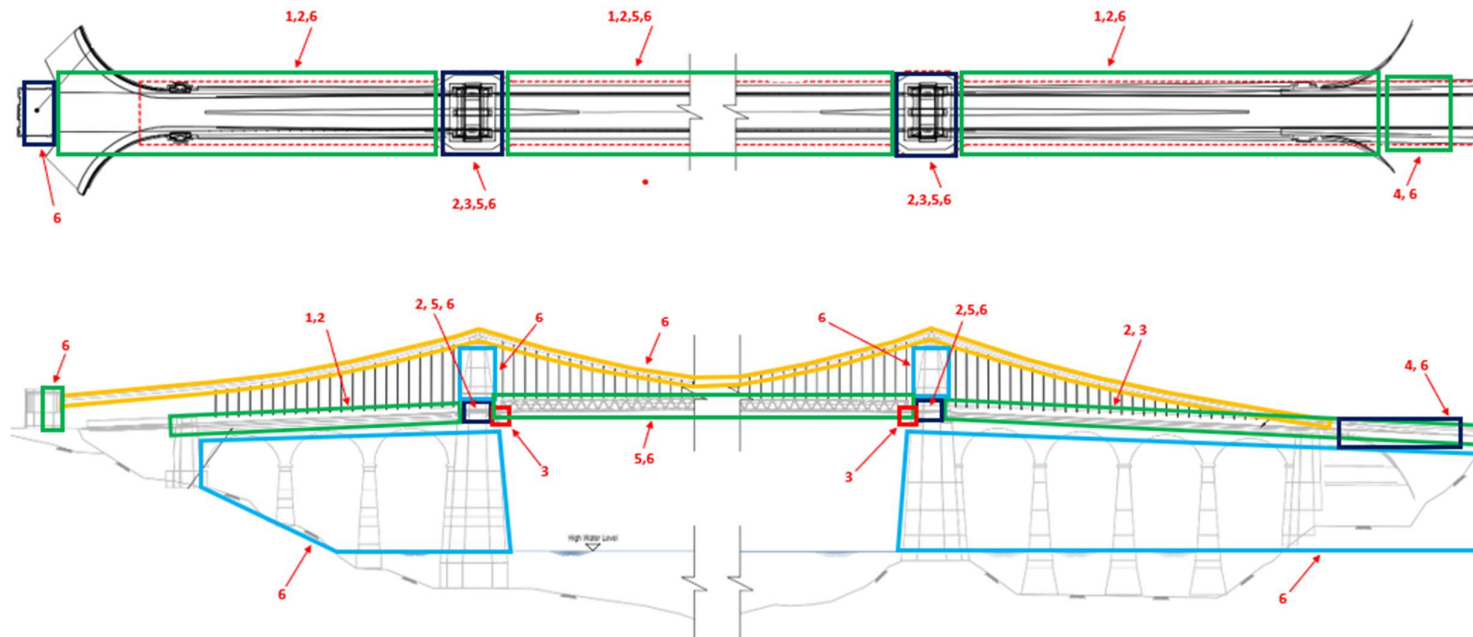
- 3.6.1 These works involve partial or total replacement of the lighting on the bridge, highway and decorative lighting.
- 3.6.2 The mainspan lighting and associated cabling shall be removed and refurbished in its entirety for future installation with temporary lighting installed in the interim period.
- 3.6.3 Replacement of lighting will involve a variety of access methods, including (but not necessarily limited to) rope access, access from floating vessels, MEWPs and scaffold access.
- 3.6.4 All works carried out from floating vessels shall be undertaken in line with requirements of the local Marine Authority with notice and liaison with the Coastguard, and all relevant Regulatory and local restrictions followed.
- 3.6.5 All materials used above or near the Strait shall be secured with a suitable lanyard.

3.7 Hanger Refurbishment and Replacement

- 3.7.1 Essential structural work to inspect, replace the hangers on the mainspan and North and South approach viaducts are complete. New hangers installed in 2024 require painting and this is scheduled for 2025. The hangers are located on the bridge.
- 3.7.2 The paint will comply with the DMRB NG 1900 of the standards for Protection of Steelworks against Corrosion and its Environmental appendices (1/23). The preferred method of application would be by brush.

Appendix A – Scheme Locations on Structure

Menai Suspension Bridge – Works Layout Drawing



Key

1. Corbel strengthening and repairs
2. Parapet repairs and painting
3. Mainspan deck bearing inspections
4. Land saddle inspections
5. Mainspan/ Tower walkway underdeck painting
6. M&E Lighting Scheme