T: +44 (0)1224 295579
E: ms.marinelicensing@gov.scot

Marine Licence Application for Construction Projects

Version 1.0

Marine (Scotland) Act 2010

Marine Scotland, 375 Victoria Road, Aberdeen, AB11 9DB
http://www.gov.scot/Topics/marine/Licensing/marine

Acronyms

Please note the following acronyms referred to in this application form:

BPEO	Best Practicable Environmental Option
EIA	Environmental Impact Assessment
ES	Environmental Statement
MHWS	Mean High Water Springs
MMO	Marine Mammal Observer
MPA	Marine Protected Area
MS-LOT	Marine Scotland – Licensing Operations Team
PAM	Passive Acoustic Monitoring
SAC	Special Area of Conservation
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WGS84	World Geodetic System 1984

Explanatory Notes

The following numbered paragraphs correspond to the questions on the application form and are intended to assist in completing the form. These explanatory notes are specific to this application and so you are advised to read these in conjunction with the Marine Scotland Guidance for Marine Licence Applicants document.

1. Applicant Details

The person making the application who will be named as the licensee.

2. Agent Details

Any person acting under contract (or other agreement) on behalf of any party listed as the applicant and having responsibility for the control, management or physical deposit or removal of any substance(s) or object(s).

3. Payment

Indicate payment method. Cheques must be made payable to: The Scottish Government.

Marine licence applications will not be accepted unless accompanied by a cheque for the correct application fee, or if an invoice is requested, until that invoice is settled. Target timelines for determining applications do not begin until the application fee is paid.

4. Application Type

Indicate if the application is for a new construction site or an existing construction site. Provide the existing or previous consent/licence number and expiry date if applicable.

5. Project Details

(a) Give a brief description of the project (e.g. construction of a new sea outfall).

(b) Provide the total area of proposed works in square metres.

(c) Provide the proposed start date of the project. The start date will not be backdated, since to commence a project for which a licence has not been obtained will constitute an offence, which may result in appropriate legal action. A licence is normally valid for the duration of the project but not exceeding 3 years. If a project will not be completed before a marine licence lapses, it will be necessary for licence holders to re-apply for a further licence to continue any ongoing work at least 14 weeks prior to the expiry date of the licence. **Target duration for determination of a marine licence application is 14 weeks.**

(d) Provide the proposed completion date of the project.

(e) Provide the cost of the works seawards of the tidal limit of MHWS. This estimate should only cover

work taking place below the tidal level of MHWS and must take into consideration the cost of materials, labour fees etc.

(f) Describe the location of the proposed works. Include a list of the latitude and longitude co-ordinates (WGS84) of the boundary points of the proposed project. WGS84 is the World Geodetic System 1984 and the reference co-ordinate system used for marine licence applications. Co-ordinates taken from GPS equipment should be set to WGS84. Coordinates taken from recent admiralty charts will be on a WGS84 compatible datum. Ordnance survey maps do not use WGS84. In a few cases, (e.g. laying of long pipelines) it may only be practicable to supply co-ordinates for the start and end points.

Example: For positions read from charts the format should be as in the example: 55°55.555'N 002°22.222'W (WGS84). The decimal point specifies that decimals of minutes are used and the datum is stated explicitly. If seconds are used then the format should be as in the example: 55°55'44''N 2°22'11''W (WGS84).

It is important that the correct positions, in the correct format, are included with this application, as any errors will result in the application being refused or delayed.

To supplement your application, please provide photographs of the project location and submit these with your application. Please also provide a suitably scaled extract of an Ordnance Survey Map (1:2,500 scale but not more than 1:10,000) or Admiralty Chart which must be marked to indicate:

- the full extent of the works in relation to the surrounding area;
- latitude and longitude co-ordinates defining the location of the works;
- the level of MHWS;
- any adjacent SAC, SPA, SSSI, MPA, Ramsar or similar conservation area boundary.

Drawings and plans will be consulted upon. If they are subject to copyright, **it is the responsibility of the applicant to obtain necessary approvals to reproduce the documents and to submit suitably annotated copies with the application.**

Sewer outfalls, discharge pipes for industrial waste etc. The size and description of the pipe must be shown on the longitudinal sections and also details of its supports, foundations, methods of jointing and details of any tidal flaps.

Bridges over tidal waters: An elevation with longitudinal and cross-sections of the bridge to a suitable scale must show the dimensions of the spans and width of piers, etc. above and below MHWS and the maximum and minimum heights of the undersides of the superstructures above MHWS. The headroom above MHWS and the width of span of the nearest bridges, if any, above and below the site must be stated.

Tunnels under tidal waters: The longitudinal section of the tunnel must show the distances between the bed of the river or estuary and the top of the tunnels. Cross-sections must show the internal and external dimensions of the tunnel and particulars of construction. When a proposed future dredging level is known this must also be shown on all sections.

Overhead cables: Catenary must be supplied in addition to the site plan showing the minimum clearance of the cable at MHWS and the electrical clearance allowed.

(g) Indicate if the project is located within the jurisdiction of a statutory harbour authority and provide details of the statutory harbour authority where relevant.

(h) Provide a full method statement, including schedule of works and the ultimate fate of the structure.

(i) Provide assessment of the potential impacts the works may have, including interference with other uses of the sea. Please include details of areas of concern e.g designated conservation areas, such as a SAC, SPA, SSSI, MPA or Ramsar site and shellfish harvesting areas. Further guidance on designated conservation areas can be obtained from SNH at this website:

http://gateway.snh.gov.uk/sitelink/index.jsp and guidance on shellfish harvesting areas can be obtained from http://www.foodstandards.gov.scot/ with regards to the Shellfish Waters Directive (2006/113/EC) which has parameters set to protect the water quality in which edible shellfish are grown.

Applicants should also be aware of the need to pay due regard to coastal and marine archaeological matters and attention is drawn to Historic Scotland's Operational Policy Paper HP6, "Conserving the Underwater Heritage".

Any application for beach replenishment works must be cross checked as to whether the proposed site is a designated bathing water site. If so, all physical works should ideally be done outwith the Bathing Water Season (1st June to 15th September). Further guidance on the Bathing Waters Directive (2006/7/EC) can be obtained from http://apps.sepa.org.uk/bathingwaters/.

Where there are potential impacts from the works, please provide details of proposed mitigation, such as use of MMOs or PAM, in response to potential impacts.

6. Deposits and/or Removals

(a) Complete the table to indicate all permanent substances or objects to be deposited and/or removed from below MHWS. If you propose using types of substances or objects for which a specific box is not provided in the table, please describe the nature of such substances or objects in the box marked "other".

(b) Please indicate the method of delivery of any substance(s) or object(s) to be placed below MHWS.

(c) Where the proposed work involves salt marsh feeding, beach replenishment or land reclamation the description of the substances or objects must include details of its chemical quality. Where the substances or objects have not been chemically analysed, MS-LOT may request representative samples for analysis or require the applicant to arrange for analyses to be undertaken before the marine licence application can be determined.

(d) If temporary deposits are required, please provide details as with the permanent deposits above. The temporary deposit location details (Latitude and Longitude WGS84) must be added to the form, and the period of time the site will be used must be provided. If granting a licence, MS-LOT will include on the document details of any area that has been approved as a temporary deposit site.

7. Disposal of Dredged Substance(s) or Object(s) at Sea

(a) If you are proposing to dispose of any excess substance(s) or object(s) arising from the project at sea, a separate marine licence will be required (see Dredging and Sea Disposal application form). The granting of a marine licence for construction projects does not imply that a marine licence for sea disposal will also be granted as different assessment criteria are used to determine each type of application. If a separate application is being submitted for dredging and sea disposal then this must be accompanied with a BPEO report.

(b) Provide the quantity of dredged substance(s) or object(s) for sea disposal in wet tonnes.

8. Noise Monitoring

Under the Marine Strategy Regulations (2010), there is now a requirement to monitor loud, low to mid frequency (10Hz to 10kHz) impulsive noise. Activities where this type of noise is produced include seismic airguns, other geophysical surveys (<10kHz), pile driving, explosives and certain acoustic deterrent devices. Where noisy activity is being undertaken, you must complete an initial registration form for the noise registry which allows you to provide details on the proposed work. Completion of a 'close-out' form, which allows licensees to provide details of the actual dates and locations where the activities occurred, is also required within 12 weeks of the completion of the 'noisy' activity or, in the case of prolonged activities such as piling for harbour construction or wind farms, at quarterly intervals or after each phase of foundation installation.

These forms can be downloaded from:
http://www.scotland.gov.uk/Topics/marine/science/MSInteractive/Themes/noise-reduction

Marine licence applications will not be accepted until this form has been completed and submitted.

9. Statutory Consenting Powers

Please describe in the answer to this question what (if any) statutory responsibilities you (or your client) have to consent any aspect of the project.

10. Scotland's National Marine Plan

Scotland's National Marine Plan has been prepared in accordance with the EU Directive 2014/89/EU, which came into force in July 2014. The Directive introduces a framework for maritime spatial planning and aims to promote the sustainable development of marine areas and the sustainable use of marine resources. It also sets out a number of minimum requirements all of which have been addressed in this plan. In doing so, and in accordance with article 5(3) of the Directive, Marine Scotland have considered a wide range of sectoral uses and activities and have determined how these different objectives are reflected and weighted in the marine plan. Land-sea interactions have also been taken into account as part of the marine planning process. Any applicant for a marine licence should consider their proposals with reference to Scotland's National Marine Plan. A copy of Scotland's National Marine Plan can be found at: http://www.gov.scot/Publications/2015/03/6517/0

Indicate whether you have considered the project with reference to Scotland's National Marine Plan and provide details of considerations made with reference to the policies, including but not limited to General Policies 7 and 13 (GEN 7 and GEN 13), that have been considered. If you have not considered the project with reference to Scotland's National Marine Plan please provide an explanation.

11. Pre-Application Consultation

Certain activities will be subject to public pre-application consultation. Activities affected will be large projects with the potential for significant impacts on the environment, local communities and other legitimate uses of the sea. The new requirement will allow those local communities, environmental groups and other interested parties to comment on a proposed development in its early stages – before an application for a marine licence is submitted. Further information can be obtained from: http://www.scotland.gov.uk/Resource/0043/00439649.pdf

If applicable, please provide your pre-application consultation report with your application.

12. Consultation (other than carried out under pre-application consultation)

Provide details of all bodies consulted and give details of any consents issued including date of issue.

13. Environmental Assessment

(a) Under the Marine Works Environmental Impact Assessment (EIA) Regulations 2007, there may be a requirement for certain projects to undergo an EIA and produce an ES. If EIA is required, MS-LOT will not determine a marine licence application until the EIA consent decision in respect of the marine licence application has been reached. Please confirm if the project falls under Annex I or II of Directive 85/337/EEC: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0092&from=EN in relation to the Marine Works (EIA) Regulations 2007.

Marine licence applications for proposals which fall under the regulations will not be accepted unless a screening opinion has been issued in relation to this.

(b) Please indicate if an EIA has been undertaken and whether it was for the marine licence application to which this application relates or for any other EIA regulator (e.g local authority). Please attach any previous ES to the application.

MS-LOT will not determine a marine licence application until the EIA consent decision in respect of any regulated activity associated with the marine licence application has been reached.

14. Associated Works

Indicate whether the application is associated with any other marine projects (e.g. land reclamation, marine/harbour construction works, dredging and sea disposal etc). If this is the case, provide reference/licence number for the related marine projects.

Marine Licence Application for Construction Projects

Version 1.0

Marine (Scotland) Act 2010

It is the responsibility of the applicant to obtain any other consents or authorisations that may be required.

Under Section 54 of the Marine (Scotland) Act 2010, all information contained within and provided in support of this application will be placed on a Public Register. There are no national security grounds for application information not going on the Register under the 2010 Act.

Public Register

Do you consider that any of the information contained within or provided in support of this application should not be disclosed:

(a) for reasons of national security; YES ☐ NO ■

(b) for reasons of confidentiality of commercial or industrial information where such confidentiality is provided by law to protect a legitimate commercial interest? YES ☐ NO ■

If **YES**, to either (a) or (b), please provide full justification as to why all or part of the information you have provided should be withheld.

WARNING

It is an offence under the Act under which this application is made to fail to disclose information or to provide false or misleading information.

Target duration for determination is 14 weeks. Please note that missing or erroneous information in your application and complications resulting from consultation may result in the application being refused or delayed.

Marine licence applications will not be accepted unless accompanied by a cheque for the correct application fee, or if an invoice is requested, until that invoice is settled. Target timelines for determining applications do not begin until the application fee is paid.

Declaration

I declare to the best of my knowledge and belief that the information given in this form and related papers is true.

Signature [redacted] Date 06/10/21

Name in BLOCK LETTERS [redacted]

Application Check List

Please check that you provide all relevant information in support of your application, including but not limited to the following:

- Completed and signed application form ☐
- Project Drawings ☑
- Maps/Charts ☑
- Co-ordinates of the boundary points of the area of harbour jurisdiction (if you are a statutory harbour authority) ☑
- Method Statement ☑
- Photographs of the location of the project ☐
- Additional information e.g. consultation correspondence (if applicable) ☑
- Noise Registry – Initial Registration Form (if applicable) ☐
- Pre-application Report (if applicable) ☐
- Environmental Statement (if applicable) ☐
- Payment (if paying by cheque) ☐

1. Applicant Details

Title: Mr Initials: J Surname: Whitfield

Trading Title (if appropriate): Story Contracting Ltd

Address: Whistleberry Road, Blantyre, Glasgow
G72 0TA

Name of contact (if different):

Telephone No. (inc. dialing code): 0141 483 2323

Email: jordan.whitfield@storycontracting.com

Statutory Harbour Authority? YES ☐ NO ☐

If **YES**, please provide a list of the latitude and longitude co-ordinates (WGS84) of the boundary points of the area of harbour jurisdiction using Appendix 01 Additional Co-ordinates form if necessary.

2. Agent Details (if any)

Title: Mrs Initials: A Surname: Bush

Trading Title (if appropriate): IKM Consulting Ltd

Address: 39 Bo'ness Road, Grangemouth, FK38AN

Name of contact (if different): Amber Bush

Telephone No. (inc. dialing code): 01324 878822

Email: amber@ikmconsulting.co.uk

3. Payment

Enclosed Cheque ☐ Invoice ☒

Contact and address to send invoice to:

Applicant ☒ Agent ☐ Other ☐

If **OTHER**, please provide contact details:

Title: Initials: Surname:

Address:

Email:

4. Application Type

Is this application for a new construction site or an existing construction site:

New Site ☒ Existing Site ☐

If an **EXISTING SITE**, please provide the consent/licence number and expiry date:

Consent/Licence Number	Expiry Date

5. Project Details

(a) Brief description of the project (e.g. construction of a new sea outfall):

Story Contracting Ltd are due to carry out structure refurbishment works at UB052/001 Clyde Viaduct on behalf of Network Rail. Proposed works will include installation of a working scaffold platform, masonry and steelwork repairs, grit blasting and painting.

(b) Total area of the proposed works (in square metres):

2600 m^2

(c) Proposed start date **(Target duration for determination of a marine licence application is 14 weeks):**

04/01/2022

(d) Proposed completion date:

02/09/2022

(e) Cost of the works seawards of the tidal limit of MHWS:

£3,500,869.34

(f) Location:

The structure is located in Glasgow at National Grid Reference NS 61360 62515. UB 052/001 is a 7-span viaduct carrying 2No. electrified tracks of the ARG2 line and a single non-electrified ballasted track of the LNE Bridgeton Yard line (Goods line) over the River Clyde, disused land, and a footpath in Dalmarnock, between Rutherglen Central Junction and Finnieston Junction. Clearance under the structure varies in relation to the arches height. During a July 2021 topographical survey, clearance was shown to range between 6m (at the keystone) - 2.73m (at the pier) (based on a water level of 1.52m above Datum). Story are proposing to install a scaffold frame to facilitate the repairs, reducing the clearance to approximately 4m (at the keystone)- 0.73m (at the pier). See attached Elevation drawings within the Figures. It should be noted that Story are awaiting Glasgow City Council responding with a suitable clearance prior to finalising their scaffold design.

Latitude and Longitude co-ordinates (WGS84) defining the extent of the project (continue on Appendix 01 Additional Co-ordinates form if necessary):

Latitude											**Longitude**										
5	5	°	5	0	.	1	0		' N		0	0	4	°	1	2	.	5	5		' W
5	5	°	5	0	.	1	0		' N		0	0	4	°	1	2	.	5	6		' W
5	5	°	5	0	.	0	7		' N		0	0	4	°	1	2	.	5	4		' W
5	5	°	5	0	.	0	7		' N		0	0	4	°	1	2	.	5	5		' W
		°			.				' N					°			.				' W
		°			.				' N					°			.				' W
		°			.				' N					°			.				' W
		°			.				' N					°			.				' W
		°			.				' N					°			.				' W
		°			.				' N					°			.				' W

(g) Is the project located within the jurisdiction of a statutory harbour authority?

YES ☐ NO ■

If **YES**, please specify statutory harbour authority:

(h) Method statement including schedule of work (continue on separate sheet if necessary):

To carry out these works Story will construct a complex working platform using scaffolding. Scaffold will be supported from each bank, 2m surrounding each abutment. The scaffold will then be supported by the piers & hung from the structure. The height of this will be determined by the height of boats requiring to pass under the structure, which is currently being discussed with the council. The scaffold shall be fully encapsulated & sealed to allow blasting, painting, masonry and steelwork repairs within, with an external walkway on either side purely for access. On the support for the scaffold on the embankments (not at rivers edge though) surrounding the abutments, top soil shall be stripped and granular fill shall be placed and compacted to provide a solid footing for the scaffold.

Due to the presence of Giant hogweed (Heracleum mantegazzianum), Japanese knotweed (Fallopia japonica) and Himalayan balsam (Impatiens glandulifera), a spray treatment of the invasive non-native species (INNS) will need to be applied to a 5m envelope surrounding the structure and in any area where scaffolding is going to be positioned and invasive species are located. A copy of the INNS survey report and an outline management plan is attached. A INNS Management Plan will be produced ahead of the works commencing. All treatment of INNS will be completed in compliance with GBR23 of the CAR Practical Guide 2021.

A detailed schedule and drawings of all substructure elements and masonry approach spans and their proposed repair details are provided. As a minimum, repairs to jack arches/cross girders, columns, urgent defects and masonry/pointing repairs will be included.

Method Statement continued on page 16.

(i) Potential impacts the works may have (including details of areas of concern e.g designated conservation and shellfish harvesting areas) and proposed mitigation in response to potential impacts (continue on separate sheet if necessary):

There are two designates areas in proximity to UB 052/001. 856m south-west of the structure lies the Malls Mire Local Nature Reserve. The Bothwell Castle Grounds SSSI, approximately 7.8km downstream of work area, has qualifying features consisting of invertebrate assemblage and upland mixed ash woodland. Given the proximity of the structure, it is unlikely the works will impact these designated areas.

The main risk from the works is the potential for paint fines and grit to enter the water environment. All works will be undertaken on the structure, above water level and the works area will be fully encapsulated. The deck will be covered in cordex to contain any debris caused from works. A Surface Water Management Plan (SWMP) will be developed and briefed to the site operatives ahead of works commencing onsite highlighting the importance of good housekeeping and the management of any oils or chemicals etc. A Site Waste Management Plan will also be developed which will detail how the paint fines and grit will be contained and disposed from site and the process of removing waste materials in accordance with Waste Management Regulations.

Potential impacts and proposed mitigation are continued on page 17.

6. Deposits and/or Removals

(a) **Permanent** substance(s) or object(s) to be deposited and/or removed from below MHWS (continue on a separate sheet if necessary):

	Deposits		Removals	
Type of Deposit/Removal	Description	Quantity & Dimensions (metric)	Description	Quantity & Dimensions (metric)
Steel/Iron	N/A	No.		No.
		Dimensions		Dimensions
		Weight (kg/tonnes)		Weight (kg/tonnes)
Timber	N/A	No.		No.
		Dimensions		Dimensions
		Weight (kg/tonnes)		Weight (kg/tonnes)
Concrete	N/A	No.		No.
		Dimensions		Dimensions
		Weight (kg/tonnes)		Weight (kg/tonnes)
Plastic/Synthetic	N/A	m^2		m^2
Clay (< 0.004 mm)	N/A	Volume (m^3)		Volume (m^3)
		Weight (kg/tonnes)		Weight (kg/tonnes)
Silt (0.004 ≤ Silt < 0.063 mm)	N/A	Volume (m^3)		Volume (m^3)
		Weight (kg/tonnes)		Weight (kg/tonnes)
Sand (0.063 ≤ Sand < 2.0 mm)	N/A	Volume (m^3)		Volume (m^3)
		Weight (kg/tonnes)		Weight (kg/tonnes)
Gravel (2.00 ≤ Gravel < 64.0 mm)	N/A	Volume (m^3)		Volume (m^3)
		Weight (kg/tonnes)		Weight (kg/tonnes)
Cobbles (64.0 ≤ Cobbles < 256.0 mm)	N/A	Volume (m^3)		Volume (m^3)
		Weight (kg/tonnes)		Weight (kg/tonnes)
Boulders (≥ 256.0 mm)	N/A	Volume (m^3)		Volume (m^3)
		Weight (kg/tonnes)		Weight (kg/tonnes)

Pipe	N/A	Length (m) External Diameter (cm/m)		Length (m) External Diameter (cm/m)
Other (please describe below):				

(b) Method of delivery of substance(s) or object(s):

N/A

(c) For work involving salt marsh feeding, beach replenishment or land reclamation please provide the following information relating to the substance(s) or object(s) to be deposited:

Quantity (tonnes):

N/A tonnes

Nature of substance(s) or object(s) (e.g. sand, silt, gravel etc.):

N/A

Source (if sea dredged state location of origin)

N/A

Particle size:

N/A

Have the substance(s) or object(s) been chemically analysed? **YES** ☐ **NO** ☐
If YES, please include the analysis data with your application

(d) **Temporary** substance(s) or object(s) to be deposited below MHWS (continue on a separate sheet if necessary):

Type of Deposit	**Description**	**Quantity & Dimensions** (metric)
Steel/Iron	N/A	No.
		Dimensions
		Weight (kg/tonnes)
Timber	N/A	No.
		Dimensions
		Weight (kg/tonnes)

Concrete	N/A	No.
		Dimensions
		Weight (kg/tonnes)
Plastic/Synthetic	N/A	m^2
Clay (< 0.004 mm)	N/A	Volume (m^3)
		Weight (kg/tonnes)
Silt (0.004 ≤ Silt < 0.063 mm)	N/A	Volume (m^3)
		Weight (kg/tonnes)
Sand (0.063 ≤ Sand < 2.0 mm)	N/A	Volume (m^3)
		Weight (kg/tonnes)
Gravel (2.00 ≤ Gravel < 64.0 mm)	N/A	Volume (m^3)
		Weight (kg/tonnes)
Cobbles (64.0 ≤ Cobbles < 256.0 mm)	N/A	Volume (m^3)
		Weight (kg/tonnes)
Boulders (≥ 256.0 mm)	N/A	Volume (m^3)
		Weight (kg/tonnes)
Pipe	N/A	Length (m)
		External Diameter (cm/m)
Other (please describe below):		

7. Disposal of Dredged Substance(s) or Object(s) at Sea

(a) Do you intend to apply for a marine licence for sea disposal of dredged substance(s) or object(s) as part of the project? YES ☐ NO ■

If **YES**, please specify nature of substance(s) or object(s) (e.g sand, gravel, silt, clay, rock etc.):

N/A

(b) Quantity of substance(s) or object(s) (wet tonnes):

N/A wet tonnes

A separate marine licence application will be required to be submitted for sea disposal.

8. Noise Monitoring

Will loud, low to mid frequency (10Hz to 10kHz) impulsive noise be produced by the project? YES ☐ NO ■

If **YES**, which please indicate the noise generating activities and sound frequencies:

Noise Generating Activity	Sound Frequency (Hertz)
Use of Explosives	
Use of Accoustic Deterrent Devices	
Piling	
Other (please describe below):	

If you have ticked **YES**, please complete the Noise Registry – Initial Registration form located at: http://www.scotland.gov.uk/Topics/marine/science/MSInteractive/Themes/noise-reduction

Marine licence applications will not be accepted until this form has been completed and submitted.

9. Statutory Consenting Powers

Do you, or (if appropriate) your client, have statutory powers to consent any aspect of this project?

Works are being undertaken on behalf of Network Rail under permitted development in line with The Town and Country Planning (General Permitted Development) (Scotland) Order 1992.

10. Scotland's National Marine Plan

Have you considered the application with reference to Scotland's National Marine Plan? YES ■ NO ☐

If **YES**, provide details of considerations made with reference to the policies, including but not limited to General Policies 7 and 13 (GEN 7 and GEN 13), that have been considered:

We have considered the application with reference to Scotland's National Marine Plan. This project will be delivered in a manner that will not result in any degradation to the water environment. No works will take place in the water environment. Please see the attached Construction Method Statement detailing control measures that will be employed to prevent pollution.

Gen 7: Landscape / Seascape. The scaffold will be erected on a temporary basis (for less than 9 months in total). The structure is located within an urban environment, where residents are used to regular construction and maintenance works. Ahead of works commencing, a pre-construction ecological appraisal will be conducted and if any protected species are identified (which could be impacted due to the works), then mitigation measures will be implemented. We have made contact with the Clyde River Foundation (CRF) to identify if any additional measures can be implemented to reduce visual disturbance to fish.

Gen 10: Invasive Non-native species. All invasive non-native species will be treated within a 5m envelope of the working area and will be disposed of following the correct waste regulations. Biosecurity measures will be adhered to in order to prevent the species of these plants.

Gen 13: Noise & Vibration. All works are being undertaken above water level and will be undertaken in accordance with best practicable measures and BS5228 Part 1 and Part 2. We will liaise with the CRF to understand if there are any additional precautions we can implement to reduce noise disturbance on fish

If **NO**, please provide an explanation of why you haven't considered the National Marine Plan?

11. Pre-Application Consultation

Is the application subject to pre-application consultation, under The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013? YES ☐ NO ■

If **YES,** please indicate the date of the public notice for the pre-application consultation event and the type of consultation event held (a copy of the public notice must be supplied with this application):

Event Type	Date

12. Consultation

List all bodies you have consulted and provide copies of correspondence:

Correspondence with CRF has began and is ongoing. Correspondence with other bodies (such as NatureScot and SEPA) has not been undertaken at the time of submitting this application. Any future correspondence will be forwarded to Marine Scotland as required.

13. Environmental Assessment

(a) Does the project fall under Annex I or II of the EIA Directive?

Annex I ☐ Annex II ☐ Neither ■

If **ANNEX I or ANNEX II**, please provide the screening opinion issued to you in relation to the project.

(b) Has an EIA been undertaken:

for the marine licence application to which this application relates YES ☐ NO ■
for any other EIA regulator (e.g local authority) YES ☐ NO ■

14. Associated Works

Provide details of other related marine projects, including reference/licence numbers (if applicable):

N/A

Method Statement Continued

Each phase shall be grit blasted from a designated zone to remove any unwanted material and expose a clean metal surface. A grit blast test shall be carried out, to ensure that the containment is adequate with no leaks. All defective areas shall be rectified prior to the full blast commencing.

Devegetation will also take place within a 5m envelope of the structure.

On all areas of accessible metal work, paint shall be removed and replaced with a Network Rail approved corrosion protection system to NR/L3/CIV/039 and NR/L3/CIV/040. The project remit states that the selected paint system must satisfy a 25-year service life in a C4 High environment. An M20 or M21 system blast cleaned to surface standard SA1/2 is one such corrosion protection system that will meet this specification. All new steelworks shall be blast cleaned to surface standard SA1/2.

Clyde Viaduct Marine Licence Potential Impacts Cont.

Protective measures will be put in place to ensure that water levels and the weather forecast is monitored closely, and that scaffolding is inspected after any adverse weather conditions have occurred. In high wind events, the protective sheeting for encapsulation will be secured to ensure sheet is tight as far as reasonably practicable. Any gaps will be sealed to prevent material escaping. Encapsulation and visual water monitoring will be undertaken on a regular basis to ensure its efficiency.

A Preliminary ecological appraisal (PEA) will be undertaken to identify if any ecological constraints are present around the work area. Results from this survey can be passed on to NS. Mitigation measures will be applied depending on the findings of these surveys.

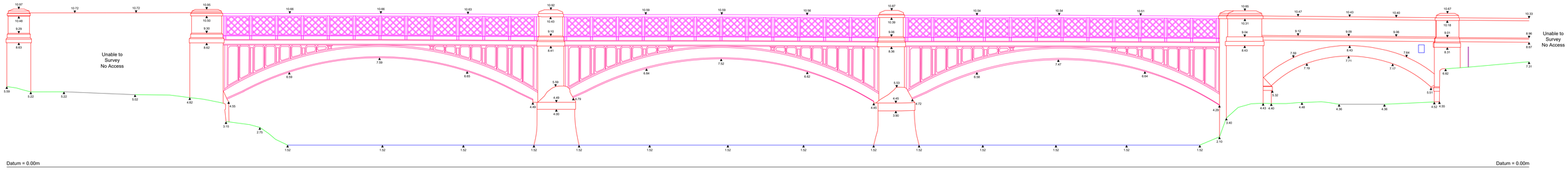
For all areas where de-vegetation works will take place, this should occur out with the breeding bird season which runs from March to August. If this is not possible, a nesting bird check should be carried out by a suitably qualified and experienced ecologist immediately before any de-vegetation or ground clearance commence.

Due to the presence of INNS within the works area, a spraying treatment consisting of a Glyphosphate based herbicide for invasive plant species will be applied to the 5m surrounding of the structure, and in any area where the scaffolding is going to be positioned where invasive species are located. Any material/soil that needs to be taken off site will be classed as special waste and will follow procedures which adhere to waste management regulations and the project's site waste management plan. Biosecurity measures will be in place to ensure the plants are not mistakenly spread around site.

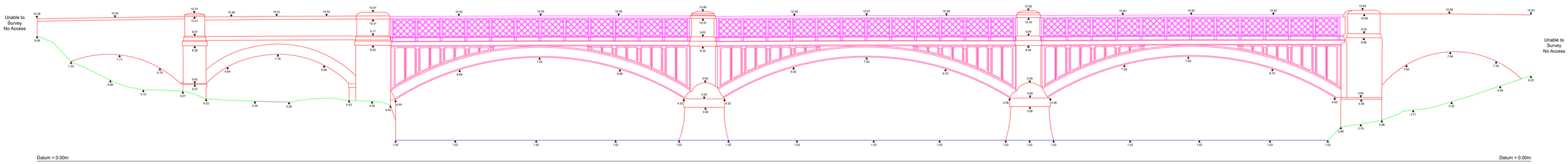
There are no archaeological constraints associated with the structure. The closest listed building is located 392m to the East of the structure, which will not be impacted by the works.

* NS = Nature Scot

Appendix A – Works Drawings



East Elevation



West Elevation

L&M Survey Services
LAND • RAIL • UTILITY

Kilmarnock
Netherton House, West Netherton Street,
Kilmarnock, KA1 4BU
Tel: 01563 533368 Fax: 01563 533309
Email: info@lmsurveys.co.uk

Livingston
Shairps Business Park, Houston Road
Livingston, EH54 5FD
Tel: 01506 896231 Fax: 01563 533309
Email: info@lmsurveys.co.uk

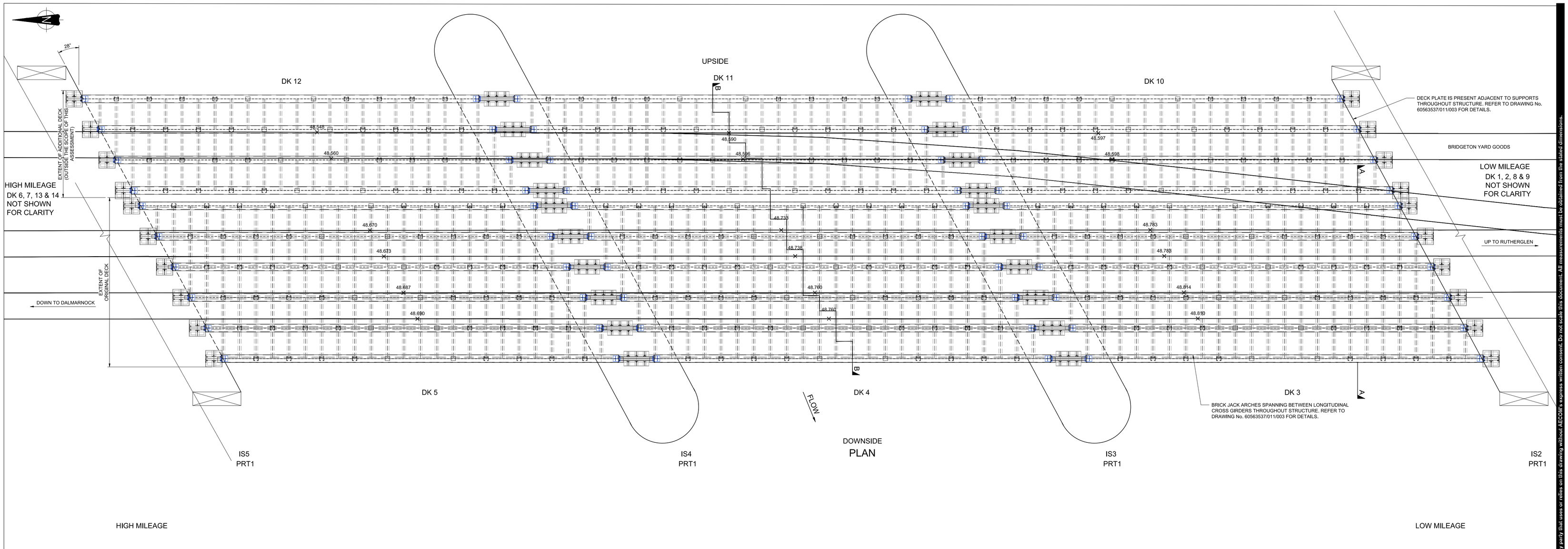
Doncaster
7 Bullrush Grove
Doncaster, DN4 8SL
Tel: 01302 570741 Fax: 01563 533309
Email: info@lmsurveys.co.uk

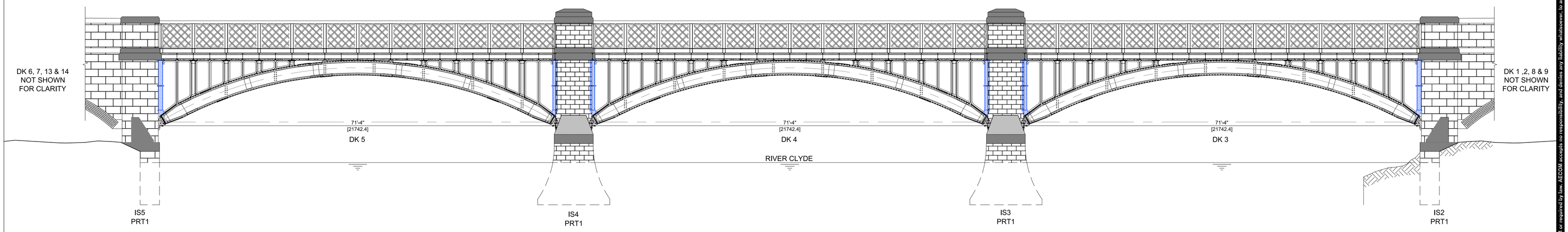
Client :
STORY CONTRACTING
WHISTLEBERRY ROAD
BLANTYRE
GLASGOW

Project Title :
ELEVATIONS
UB052/001
CLYDE VIADUCT
RUTHERGLEN

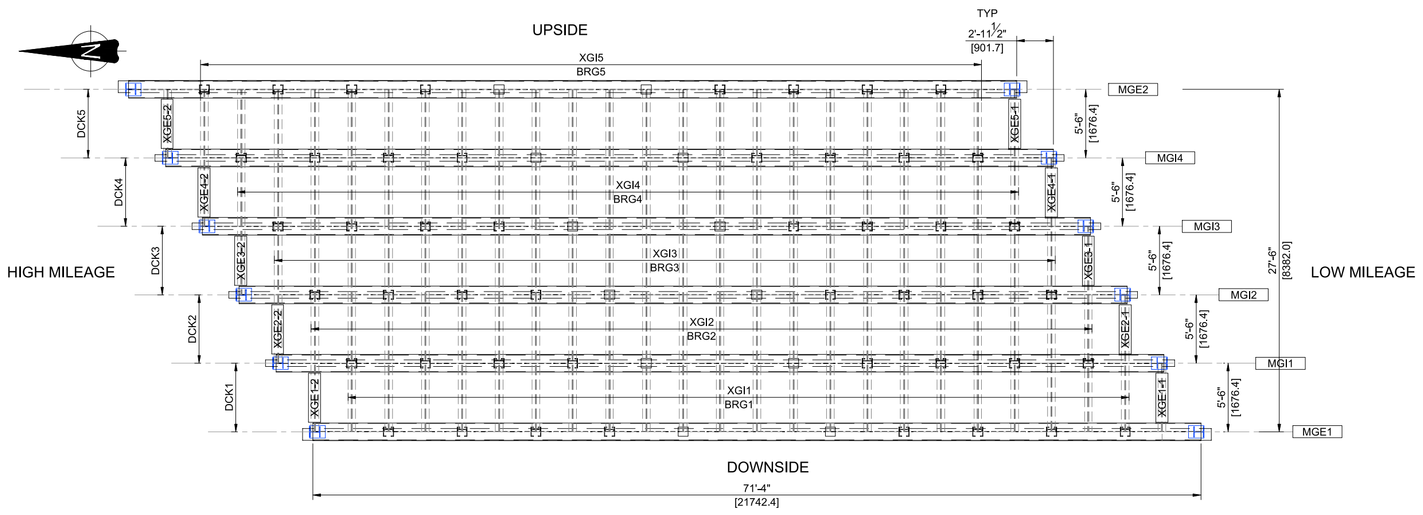
Sheet Title : SHEET 1 OF 1		Scale : 1:100	
Surveyed date : 09/07/21	Issued date : 09/09/21	Enquiry No : 24785	Project No : 14464
Surveyed by : SP	Processed by : GHB	Checked by : SMcM	Approved by : KRJA

A0 SHEET

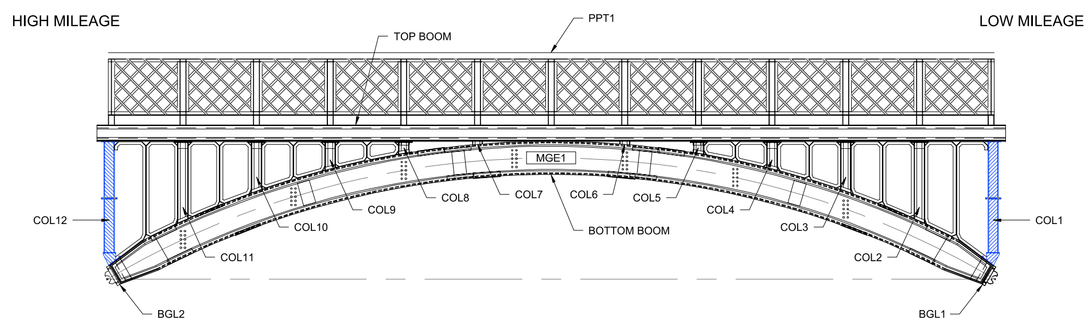




DOWNSIDE ELEVATION



BCMI PLAN (ORIGINAL DECK SINGLE SPAN ONLY)



BCMI ELEVATION
(NOTE - COL DESIGNATION USED AS DEPARTURE FROM BCMI STANDARD TO DESCRIBE POSTS ON MAIN GIRDERS)

AECOM

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. DO NOT SCALE FROM THIS DRAWING
3. ALL LEVELS SHOWN ARE IN METRES ABOVE AN ARBITRARY BENCHMARK OF VALUE [50.000m]
4. FOR DETAILS OF REPAIRS REFER TO DWG No. 60563537/011/004-010
5. FOR DEFECT SCHEDULE REFER TO DWG No. 60563537/011/11-031

KEY:

NEW/REPAIRED STEELWORK

ISSUE/REVISION

I/R	DATE	DESCRIPTION
03	NOV 2019	BCMI REVISED
02	MAY 2019	BCMI AMENDMENTS
01	OCT 2018	FIRST ISSUE

CLIENT

Network Rail

PROJECT

CIVILS ASSESSMENTS FRAMEWORK AGREEMENT 2014-2019
SCOTLAND ROUTE

SHEET TITLE

ARG2 052/001
CLYDE VIADUCT (DALMARNOCK)
GENERAL ARRANGEMENT
PLAN AND ELEVATION

CONSULTANT

AECOM
One Trinity Gardens
Newcastle upon Tyne
0191 224 6500 tel 0191 224 6599 fax
www.aecom.com

SHEET NUMBER

60563537/011/001

UPSIDE

DOWNSIDE

50.011

1988

2205

UP LINE ARG2

DOWN LINE ARG2

48.791 48.795 48.821 48.815

187 191 217 211

6" x 3" x ⅜" ANGLE

6" x 6" x ⅜" TEE, REFER TO DEFECT DRAWINGS FOR REPLACED MEMBERS

3No. 9" x 2½" x ⅜" CHANNELS

9" [228.6]

FOR DETAIL OF COLUMN REFER TO DWG No. 60563537/011/003

3" x 3" x ⅜" ANGLES

JACK ARCHES HAVE BEEN OMITTED FOR CLARITY

5" x 3" x ⅜" DECORATIVE ANGLE

6" x 6" x ⅜" TEE

2'-0" [609.6]

1'-0" [304.8]

3" x 3" x ⅜" ANGLE

3" x 3" x ⅜" BACK TO BACK ANGLE

MGE2 MGI4 MGI3 MGI2 MGI1 MGE1

5'-6" [1676.4]

SECTION A-A
TRANSVERSE SECTION THROUGH ORIGINAL STRUCTURE ONLY

UPSIDE

DOWNSIDE

49.885

BRIDGETON YARD GOODS

48.590 48.596

UP LINE ARG2

48.738 48.738

DOWN LINE ARG2

48.760 48.760

JACK ARCHES HAVE BEEN OMITTED FOR CLARITY

SEE DETAIL 2

SEE DETAIL 1

MGE2 MGI2 MGI1 MGE1 MGE2 MGI4 MGI3 MGI2 MGI1 MGE1

5'-6" [1676.4]

2'-9" [838.2]

NOTE THAT THIS DECK IS OUTSIDE OF THE SCOPE OF THIS ASSESSMENT

30'-3" [9220.2]

46'-9" [14249.4]

NOTE THAT BRACINGS HAVE BEEN OMITTED FOR CLARITY

SECTION B-B
STEPPED SECTION ALONG CROWN

3" x 3" x ⅜" ANGLE CONNECTED TO EXISTING 3" x 3" x ⅜" ANGLE WITH ⅝" Ø BOLTS

½" FLANGE PLATE

1'-3¾" [400.1]

8" [203.2]

6" x 3" x ⅜" TEE

2'-9" [838.2]

MGE1 MGE2

DETAIL 2
CONNECTION BELOW ORIGINAL AND ADDITIONAL DECKS

10" x 6" TEAK COPING STONE

6" x 3" x ⅜" TEE

2No. 6" x 3" x ⅜" BACK TO BACK CHANNELS RIVETED TO 11" x ⅜" PLATE

⅜" PLATE

6'-8" [2032.0]

3" x 3" x ⅜" ANGLES WITH ⅜" WEB PLATE

MAIN GIRDER TOP BOOM - 3" x 3" x ⅜" ANGLES WITH ⅜" WEB PLATE

3½" x 3½" x ⅜" ANGLE WITH ⅜" PLATE

10" x 3" x ⅜" CHANNEL

10" [254.0]

1'-3¾" [392.0]

1'-3" [381.0]

1'-3" [381.0]

ASSUMED 1½" PACKING (VARIES)

CONCRETE INFILL

2'-8" [812.8]

MGI1 MGE1

5'-6" [1676.4]

DETAIL 1
CONNECTION BELOW XG & MG AT CROWN

AECOM

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. DO NOT SCALE FROM THIS DRAWING
3. ALL LEVELS SHOWN ARE IN METRES ABOVE AN ARBITRARY BENCHMARK OF VALUE [50.000m]
4. FOR DETAILS OF REPAIRS REFER TO DWG No. 60563537/011/004-010
5. FOR DEFECT SCHEDULE REFER TO DWG No. 60563537/011/011-031

ISSUE/REVISION

I/R	DATE	DESCRIPTION
02	MAY 2019	BCMI AMENDMENTS
01	OCT 2018	FIRST ISSUE

CLIENT

Network Rail

PROJECT

CIVILS ASSESSMENTS FRAMEWORK AGREEMENT 2014-2019
SCOTLAND ROUTE

SHEET TITLE

ARG2 052/001
CLYDE VIADUCT (DALMARNOCK)
GENERAL ARRANGEMENT
SECTIONS & DETAILS

CONSULTANT

AECOM
One Trinity Gardens
Newcastle upon Tyne
0191 224 6500 tel 0191 224 6599 fax
www.aecom.com

SHEET NUMBER

60563537/011/002

Appendix B – Photographs of the Site

Appendix C - Correspondence with CRF

From: William Yeomans <William.Yeomans@glasgow.ac.uk>
Sent: 02 September 2021 06:27
To: Dawn Findlay <dawn@ikmconsulting.co.uk>
Subject: RE: 2022 Planned Works - Fisheries Input Required

Hello Dawn,

Thanks for the reminder! As you identify, we are running around between field sites just now. We don't do much work in that part of the river because it's basically big and dangerous but it is important passage habitat for salmon, sea trout, flounder, sea and river lampreys. Additionally, there is a large population of resident eels (critically endangered) and a big salmon and mixed coarse fishery. We don't know too much about it bit it's an important bit f the river.

To try to answer your questions:

1. We would recommend sticking to that timeframe of possible – maybe even leaving it to June to ensure the salmon smolt migration has passed.
2. We do but in broad terms and from a while ago. I can research this but not immediately.
3. Nothing specific.

Intrusive surveying below the water level could cause localised problems (eg. Eels live in holes and crevices amongst other places).

We would be happy to undertake any fish rescues required.

I hope this is of some use.

With my very best wishes,

Willie
From: Dawn Findlay <dawn@ikmconsulting.co.uk>
Sent: 01 September 2021 3:48 PM
To: William Yeomans <William.Yeomans@glasgow.ac.uk>
Subject: FW: 2022 Planned Works - Fisheries Input Required

Hello Willie

Wondered if you have had an opportunity to review the below email yet?

I know you will be super busy and not thinking about 2022 yet, so I am sorry for chasing.

Kind regards
Dawn

Dawn Findlay
Senior Scientist
Geo-Environmental

For and behalf of IKM Consulting Ltd
Park House,39 Boness Road, Grangemouth, FK3 8AN

Tel: +44 (0)1324 878 822
Fax: +44 (0)1324 878 823
Web: **www.ikmconsulting.co.uk**

ikm AWARE | Behavioural Safety

From: Dawn Findlay
Sent: 23 August 2021 10:45
To: William Yeomans <William.Yeomans@glasgow.ac.uk>
Cc: Joanne Simpson <Joanne@ikmconsulting.co.uk>; Amber Bush <amber@ikmconsulting.co.uk>
Subject: 2022 Planned Works - Fisheries Input Required

Hi Willie

I hope you are well.

I was wondering if you would be able to help us please?

We are working on behalf of Story Contracting, who have been given a list of railway structures which require improvement works during the next Network Rail funding period (2022). I believe the below structure falls under the remit of CRF.
At this stage, works are to consist of: Validate Scour Assessment, parapet and spandrel wall stabilisation, masonry repairs throughout – so most of the works will be getting undertaken over the watercourse. However, I am not sure what the "validate scour assessment" will entail – whether this will involve a degree of intrusive ground investigation within the river/on the structure (below water level) or whether it will involve a survey only.

To help with our forward planning and to ensure we advise our client on the potential implications for fish, could you advise the following:

- What is the ideal instream working window for this watercourse (typically we say May – end of September, but I know there is a small amount of flexibility across Scotland for timing of works)
- Do you hold any information on the fish species present in this watercourse?
- Is there anything our client should know about working in this watercourse, that you would like us to pass on (in terms of fish, fish spawning habitat, FWPM etc.)

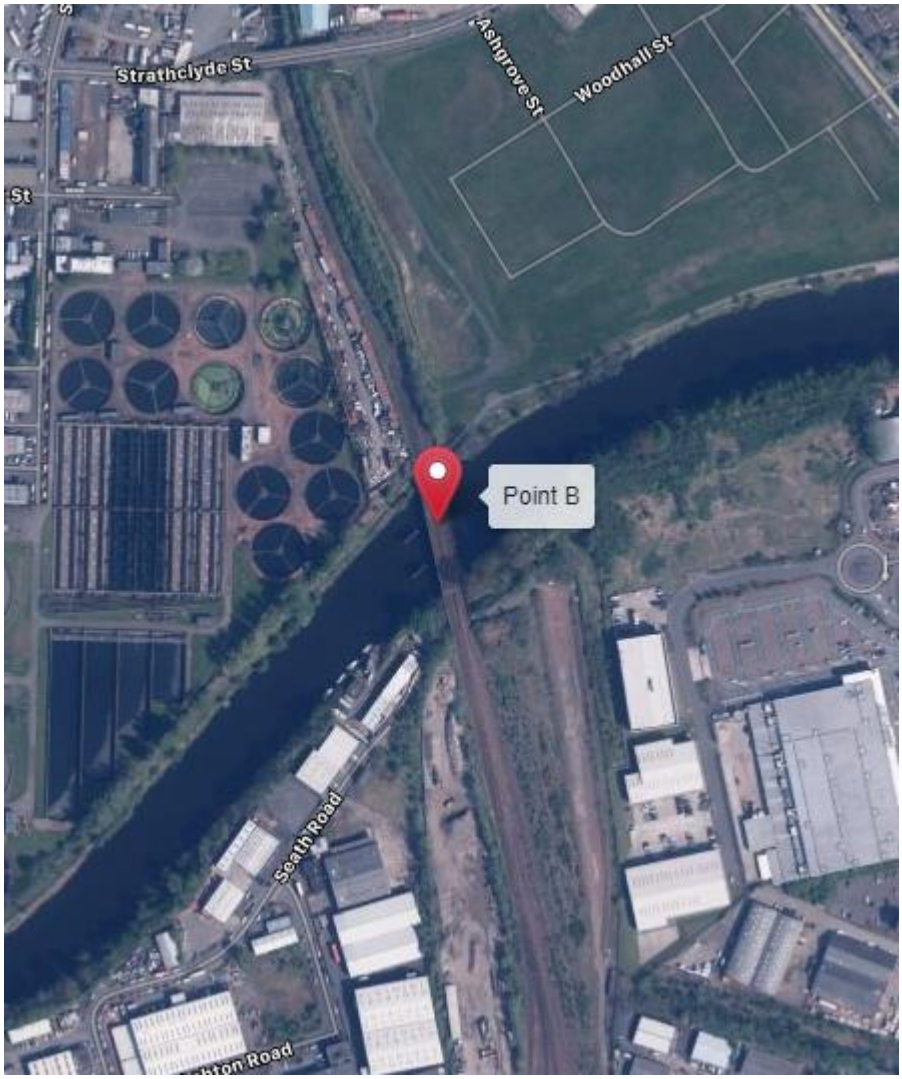
For information, can you advise what you would expect if works are to include an intrusive investigation below the water level?

On similar projects, when advised by the fisheries trust that a fish rescue will be necessary, Story will engage with the fisheries trust for this service. We will also share a copy of the Outline CMS (when submitted with a SEPA CAR Licence application) and a follow up copy of the Detailed CMS for comment ahead of works commencing (for comment/information).

As always your input is much appreciated!

Kind regards

Dawn



Point B

Grid Reference

NS 61360 62515

Grid Reference (6 figure)

NS613625

X (Easting) , Y (Northing)

261360 , 662515

Latitude , Longitude (decimal)

55.835880 , -4.2152846

Latitude , Longitude (degs, mins, secs)

55°50′09″N , 004°12′55″W

What3Words :

charm.bank.nest

Address (near) :

2nd Dalmarnock Railway Bridge, Clyde Walkway, Dalmarnock, Glasgow, Glasgow

Postcode (nearest) :

G40 4QB

Appendix D – INNS Report

Invasive Non Native Species (INNS) Survey Report and Management Plan

Date: 22/08/21

Ref No: 1836KC

Client: Story Contracting

Site: Clyde Viaduct

Surveyor: Mr Kevin Callaghan

Date Surveyed: 17/08/21 & 18/08/21

This report has been issued by Japanese Knotweed Specialists, with all reasonable skill, care and diligence under the terms of the Contract with the Client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies on the report at their own risk.

TABLE OF CONTENTS

1. INTRODUCTION

Japanese Knotweed Specialists were commissioned to conduct a survey to identify stands of invasive non-native species such as Japanese Knotweed, Giant Hogweed & Himalayan Balsam at the above site and also to provide advice on any required remediation options & costs.

1.1 JAPANESE KNOTWEED

Japanese Knotweed is considered to be one of the most troublesome invasive species in the UK. It is a rhizomatous perennial that was introduced from Asia to Europe in the mid-nineteenth century as an ornamental and fodder plant. It is an impressive species which grows to a height of 2-3 metres. It can grow very rapidly (up to 10cm's a day). The roots can extend 3 metres down and 7 metres in all directions. Japanese Knotweed can spread very fast and form dense, monoculture stands

Japanese Knotweed spreads through the dispersal of rhizome (root) and freshly cut stems. One of the major causes of the spread of Japanese Knotweed has been fly tipping and movement of soil containing Knotweed.

The presence of Japanese Knotweed on residential, commercial and development sites can have serious consequences. It can damage walls, hard surfaces, drain pipes and can be very difficult to control.

1.2 GIANT HOGWEED

Giant Hogweed was introduced into Britain in the 1893 as an ornamental plant. It escaped from domestication and is now colonising many areas of waste land and river banks. It can grow to 5m high and has a large umbel of white flowers from which it produces 30 to 50,000 viable seeds per year. When these seeds fall into water they are dispersed downstream and washed up along the bank, often on scoured bare sediment, allowing the plant to spread rapidly along watercourses. In a natural state, the plant is biennial, growing from seed in the first year and flowering in the second season. However, if the plant is cut down before it produces seed, it will survive into a third or subsequent season, attempting to flower each year. It can form dense colonies which suppress the growth of native plants and grasses and leave the banks bare of vegetation in the winter. These are then liable to erosion or to recolonisation by seeds of Giant Hogweed washed downstream onto the bare ground.

WARNING The sap of giant hogweed contains a toxic chemical which sensitises the skin and leads to severe blistering when exposed to sunlight. **THIS REACTION CAN RECUR FOR MANY YEARS.**

1.3 HIMALAYAN BALSAM

Himalayan Balsam is an introduced plant which has escaped from gardens and is rapidly colonising river banks and other areas of damp ground. It is an annual plant which grows to about 2 m with purplish-pink slipper shaped flowers in June - August. When the seed pods are mature, they explode when touched, scattering the seed. It is likely that the seeds are further spread by water movements. Himalayan Balsam forms dense stands which suppress the growth of grasses and native British plants leaving the banks bare of vegetation in autumn and winter and liable to erosion. Because Himalayan Balsam regrows annually from seed, any form of control carried out after the seed pods have formed will have no long-term benefit.

THE LAW

Japanese Knotweed, Giant Hogweed & Himalayan Balsam are listed on *Schedule 9* of the *Wildlife and Countryside Act 1981 (as amended)*, which makes it an offence to plant or otherwise cause the plant to grow in the wild. An offence under this act can result in criminal prosecution. It is not against the law to have Japanese Knotweed or Giant Hogweed on your land however you may be liable if it encroaches onto your neighbour's land, especially if it causes damage or loss of amenity to your neighbours land or property.

Legislation states that Japanese Knotweed, Giant Hogweed & Himalayan Balsam are classed as Controlled waste and if not disposed of correctly may lead to prosecution under section 34 of the Environmental Protection Act (EPA) 1990.

Japanese knotweed, Giant Hogweed & Himalayan Balsam also has additional legislation under the Anti-Social Behaviour Act. The legislation focuses on residential areas and anyone ignoring orders to control their problem can be charged and receive on the spot penalties of up to £100, criminal prosecution and fines of up to £2500 and for companies and business can be fined up to £20,000.

2 RESULTS AND CONCLUSION

2.1 Survey

Survey work was carried out by **Japanese Knotweed Specialists** to identify and document the extent of Japanese Knotweed (JK) in and around the grounds of the above premises in accordance with instructions given by the client. The survey was non-intrusive and based on a visual inspection during the growing season. The areas inspected were around the site boundary & all visible neighbouring areas where visible and within a 7 metre radius of the boundary. The results of the survey work qualified that Japanese Knotweed, Giant Hogweed & Himalayan Balsam were present within several areas of the development footprint.

Findings

Himalayan Balsam is located in close proximity to the access path to the railway line.

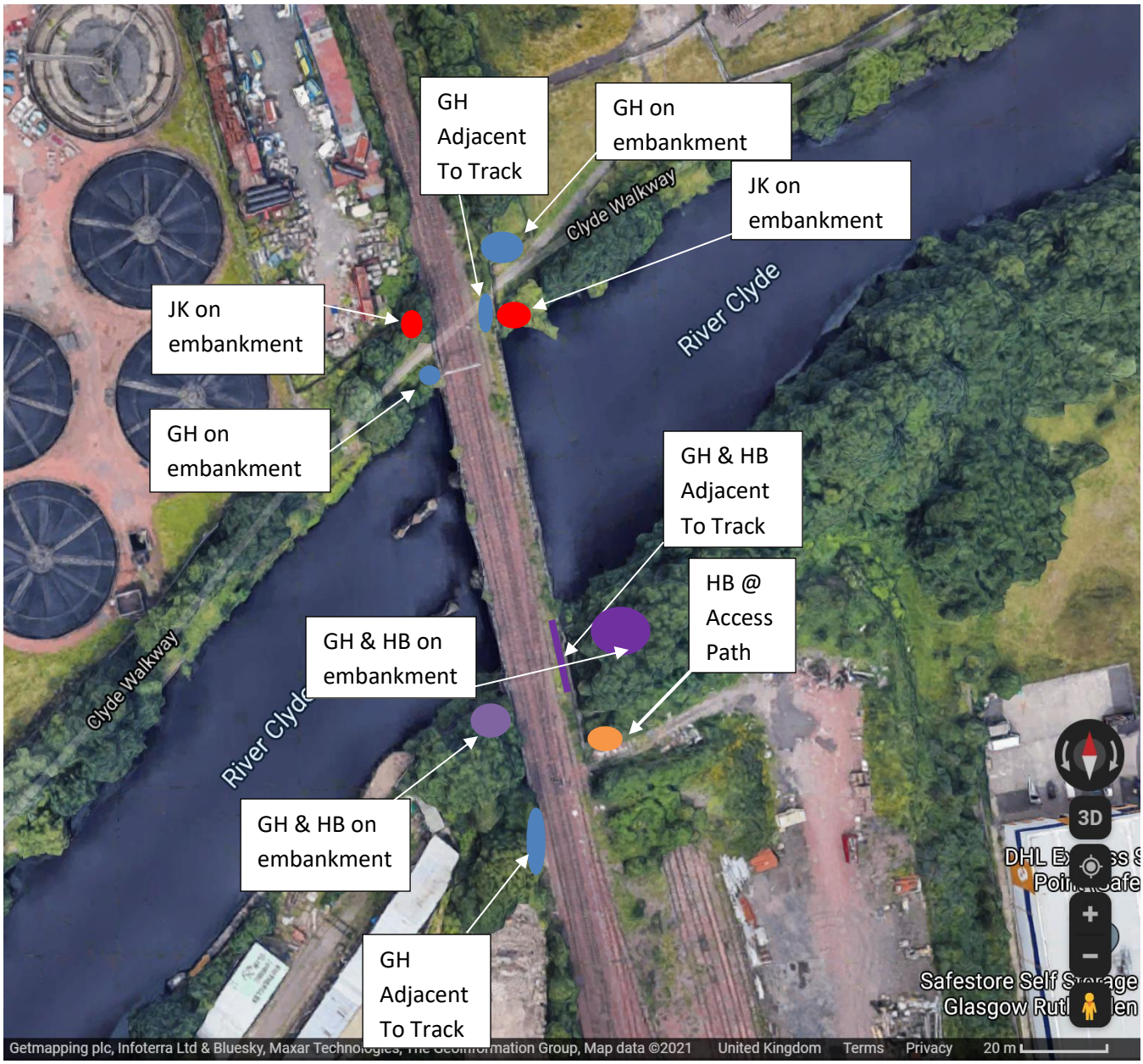
Giant Hogweed & Himalayan Balsam are located adjacent to the track.

Japanese Knotweed, Giant Hogweed & Himalayan Balsam are all within 5 metres of the viaduct at both sides.

See attached photos & map.

Summary

Japanese Knotweed, Giant Hogweed & Himalayan Balsam are present within the footprint of the above site. The growth is variable in height within the areas highlighted & can grow up to a height of 3 metres over the growing season before winter die back, the Japanese Knotweed, Giant Hogweed & Himalayan Balsam should not be interfered with by anyone other than qualified personnel as cross contamination could occur therefore spreading the growth to other areas of the site, it should be noted that in the winter the roots extract all the fluid from the shoots above ground and store this until the spring then the cycle begins again.


GH Adjacent To Track
GH on embankment
JK on embankment
Clyde Walkway
River Clyde
JK on embankment
GH on embankment
GH & HB Adjacent To Track
HB @ Access Path
GH & HB on embankment
Clyde Walkway
River Clyde
GH & HB on embankment
GH Adjacent To Track
3D
Safestore Self Storage
Glasgow
Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, The GeoInformation Group, Map data ©2021
United Kingdom
Terms
Privacy
20 m

HB Growing Close to Access Path

GH Adjacent To Track

HB Adjacent To Track

GH Adjacent To Track

JKS

JAPANESE KNOTWEED SPECIALISTS

JKS
JAPANESE KNOTWEED SPECIALISTS

Japanese Knotweed on Embankment

JKS
JAPANESE KNOTWEED SPECIALISTS

Giant Hogweed Close To Viaduct

JKS
JAPANESE KNOTWEED SPECIALISTS

Giant Hogweed Burns

4 Management Recommendations & Costs

Japanese Knotweed, Giant Hogweed & Himalayan Balsam are classed as controlled waste so any material / soil that needs to go offsite needs to go as controlled waste to a licensed landfill site. The soil would need to be tested to ensure it's non hazardous with no other contaminants.

Japanese Knotweed Dig and Cap

On construction sites the ground levels often need to be reduced before construction (installation of structural backfill and structures) can begin, this level of often referred to as the formation level. Where the formation level depth is less than the anticipated depth of knotweed rhizome there is an opportunity to carry out a reduced level dig of the knotweed. The knotweed is excavated to construction formation levels and then capped with suitable knotweed root barriers. This reduces the volume of knotweed waste to be removed from site and hence cost to the client. The knotweed waste can either be removed off-site to landfill or disposed on-site via relocation and herbicide management.

Himalayan Balsam & Giant Hogweed Excavation

Where material / soil need to be removed from site we would recommend the excavation extends to 300 – 500mm to ensure all soil with the potential to contain seeds are removed as controlled waste within a 5 metre radius of all visible plants.

Supervision of Others:

In some circumstances the principle contractor or another sub-contractor will already have machinery and labour on-site which they wish to use to undertake the physical knotweed remediation works.

In these instances we can produce:

- A Knotweed Management Plan
- Site Specific Risk Assessment and Method Statement to work alongside principal contractors

We would then provide a site supervisor (watching brief) to oversee others in the execution of the works, in accordance with the Knotweed Management Plan, Method Statement and the Property Care Association (PCA) Code of Practice.

Our working Site Supervisors have over 15 years of experience in the knotweed industry and provide a professional but courteous Watching Brief service.

As parts of a watching brief package you receive:

- Adherence to the Property Care Association (PCA) Code of Practice
- Debrief of all relevant site personnel on the works proposed (Tool Box Talk)
- Working supervision ensuring correct procedure and practices
- Practical installation of root barriers
- Waste Records Management and Recording
- Practical Completion Decontamination
- Completion Reporting

Materials and Cart-Away

Where the knotweed remediation requires it we can also supply the following alongside of supervision services:

- Cart-Away of Japanese knotweed (Controlled Waste)
- Supply of Porous or Non-Porous Root Barrier

Herbicide Treatment:

Where Knotweed, Balsam or Giant Hogweed is present in the vicinity of the working area (5 metre radius of Viaduct) and the soil doesn't require to be removed we would recommend herbicide application. The affected areas will be treated with a Glyphosate based herbicide. Glyphosate is a systemic herbicide which acts by blocking a plant's enzyme system. The herbicide is absorbed through growing leaves and stems and is translocated throughout the plant and root network. Typically the earliest in the growing season that you would treat Hogweed is April, Knotweed is May & Balsam is June as the emerge at different stages of the growing season so there may be several visits required during the duration of the works day shift & night shift.

Costs:

Disposal of material at landfill including landfill fees and taxes:
£545 plus VAT for each load

8 wheel tipper wagons to transport soils to landfill as controlled waste:
£220 plus VAT

Site supervision to oversee any excavation works within the infested areas in preparation for cart away:
£625 plus VAT (Day shift)
£975 plus VAT (Night shift)

Supply, Delivery & Installation of any required root barrier membrane:
£13 plus VAT per m2

Herbicide Treatment Day Shift:
£775 plus VAT per required treatment

Herbicide Treatment Night Shift:
£995 plus VAT per required treatment

Soil Testing & Analysis (Waste Classification):
£475 plus VAT (if required)

Assumptions:

Soils are non-hazardous inert soils acceptable at lower rate of landfill tax
Chemical analysis of the soil or WAC test to be arranged prior to commencement of the works

Advisory Notes

Do not disturb the Japanese Knotweed or the area in which it is growing

This includes but is not limited to:

Attempting to treat the infestation yourself in any way

Excavating within 2 metres of all recorded areas unless under JKS supervision

Do not cut down knotweed or hogweed, once it has been cut down we are unable to treat it until significant regrowth is achieved. This may delay or prolong the time required for treatment to be completed.

Foot wash, membrane or ground protection mats to ensure seeds are not mistakenly spread around site or offsite.

About Japanese Knotweed Specialists

Japanese Knotweed Specialists (JKS) is a company who operate nationwide specialising in invasive weed management. Founded in 2006 JKS has successfully eradicated Japanese Knotweed, Giant Hogweed an Himalayan Balsam on many sites across the UK including an 8 kilometre stretch of The River Carron selected on behalf of River Forth Fisheries Trust as well as a 20 kilometre stretch of the River Irvine on behalf of the Ayrshire Rivers Trust in 2014 in order to increase biodiversity & encourage brown trout to spawn in streams previously blocked by invasive weeds. We have worked on many remediation sites including the new Forth Crossing, New Campus College for Sir Robert McAlpine & Wokingham Major Highways for Balfour Beatty.

JKS
JAPANESE KNOTWEED SPECIALISTS

PCA Property Care ASSOCIATION

Japanese Knotweed Specialists are members of the Property Care Association (PCA) Invasive Weed Group. Accreditation to this scheme demonstrates our professionalism in the industry of invasive weed management, treatment and removal.

TRUST MARK Government Endorsed Standards www.trustmark.org.uk
Invasive Weed Controllers

Because of the high standards of service and quality that is expected from PCA members TrustMark accreditation is extended to all contractor members. TrustMark is a government endorsed scheme to ensure contractors have been approved to a high standard of service.

The Amenity Standard

The Amenity Forum is a voluntary led initiative to promote best practice in safe and sustainable weed management.

SafeContractor APPROVED www.alcumusgroup.com

Japanese Knotweed Specialists are registered contractors to the Safe Contractor, SSIP Health and Safety scheme. Accreditation to this scheme demonstrates our proficiency to Public, Company, Employer and Employee Health and Safety.

JKS
JAPANESE KNOTWEED SPECIALISTS

Constructionline
Gold Member

As a verified member of Construction-line, buyers will recognise that our company aligns to industry and government standards. As Gold Members we can demonstrate a high professional standard to our clients. We are verified against an extended PQQ (covering Environmental Management, Equalities and Diversity, and Quality Management, and ensuring legislative compliance.

Appendix E – Draft DCMS

Detailed Construction Method Statement - DRAFT

This Draft Detailed Construction Method Statement (DCMS) is a live document, which will be updated following consultation with Marine Scotland, to ensure all best practices are implemented. This document has been prepared to give a detailed breakdown of the works and pollution prevention measures that will be in place during each phase of the works.

The DCMS should be read in conjunction with the Marine Scotland Licence (reference TBC) and the Story Work Package Plan (currently being developed).

The final version of the DCMS will be submitted to Marine Scotland ahead of works commencing onsite – in line with the conditions of the Marine Licence.

1. Site Location (including grid ref. and location plan)

Figure 1: Aerial Photograph of the Site

The structure is located in Glasgow at National Grid Reference NS 61360 62515. UB 052/001 is a 7-span viaduct carrying 2No. electrified tracks of the ARG2 line and a single non-electrified ballasted track of the LNE Bridgeton Yard line (Goods line) over the River Clyde, disused land, and a footpath in Dalmarnock, between Rutherglen Central Junction and Finnieston Junction.

Figure 2 below shows that Story will utilise existing areas of hardstanding for their site compound and access track to the laydown area. The laydown area will be set back from the rivers edge and will require to be de-vegged ahead of utilisation.

	 Figure 2: Proposed Location of the Site Compound, Access and Laydown Area
2. Proposed works	**<u>Licensable Works</u>** Construction works over a structure affected by tidal conditions. Story Contracting are due to carry out structure refurbishment works on behalf of Network Rail. Proposed works will include the installation of a working scaffold platform, grit blasting and painting and steelwork repairs as required.
3. Construction Programme	Works are due to commence of January 2022 and will be completed by the end of September 2022.
4. Working Hours	Agreed working hours with Network Rail and the Local Authority are as follows: • Dayshift – 0730 – 1800hrs (approx. this could increase to 0700 to 1900hrs depending on progress) • Nightshift – 2200 – 0600hrs (approx. again may go 1900 – 0700hrs dependant on progress). **The construction programme is still to be finalised and as such, it is not yet known which shifts will be dayshifts and / or nightshifts.**
5. Environmental / Ecological Receptors	River Clyde (North Calder to Tidal Weir) is a river (ID: 10040), in the River Clyde catchment of the Scotland river basin district. The main stem is approximately 15.3 kilometres in length. The water body has been designated as a heavily modified water body on account of physical alterations that cannot be addressed without a significant impact from an increased risk of subsidence or flooding.

	Designated Sites There are two designated areas in proximity to UB 052/001. 856m south-west of the structure lies the Malls Mire Local Nature Reserve. The Bothwell Castle Grounds SSSI, approximately 7.8km downstream of work area, has qualifying features consisting of invertebrate assemblage and upland mixed ash woodland. Given the proximity of the structure and the proposed works, it is unlikely the works will impact these designated areas. Ecological Appraisal At the time of writing a preliminary ecological appraisal hasn't been completed. This has been programmed in for before the works commence onsite. It is known that Japanese Knotweed, Giant Hogweed and Himalayan Balsam are present at the site. Story Contracting have been liaising with Japanese Knotweed Specialists (JKS) regarding the treatment of plants / work areas ahead of works commencing. JKS will prepare an INNS management plan and all staff will be briefed on the presence of these plant and the controls to be employed onsite to prevent their spread. Any treatment of work areas will be done in compliance with GBR-23 of the SEPA CAR Practical Guide (2021). Fish Story have begun an initial liaison with CRF. CRF advised the following: We don't do much work in that part of the river because it's basically big and dangerous but it is important passage habitat for salmon, sea trout, flounder, sea and river lampreys. Additionally, there is a large population of resident eels (critically endangered) and a big salmon and mixed coarse fishery. We don't know too much about it but it's an important river. Story have also instructed Trex Ecology to undertake a desk based assessment for impact on fish – this can be issued to Marine Scotland ahead of works commencing.
6. Licences / Consents Required	Marine Scotland Construction Projects Licence No other licences / consents are anticipated at present.
7. Management Documents to be Produced / Referenced	Ahead of works commencing, Story will also prepare an internal Environmental and Social Management Plan (ESMP) and a Site Waste Management Plan. The ESMP will address all of the environmental risks associated with the works and will provide an Environmental Incident Response Procedure. To avoid, minimise and reduce adverse effects to the receptors, the construction phase management plans will follow guidance contained within to mitigate likely significant impacts during the construction phase, all works associated with the

	construction of the Development would be undertaken with due regard to the guidance contained within the CIRIA Document C650 Environmental Good Practice on Site as well as Guidance for Pollution Prevention (GPPs), specifically, GPP 5: Works and maintenance in or near water. Additionally, works will adhere to the standard set out in SEPA's Pollution Prevention Guidelines (PPGs) / Guidance for Pollution Prevention (GPPs). Specific documents to refer to: PPG 7: Safe storage - The safe operation of refuelling facilities; GPP 22: dealing with spills; GPP 1: Understanding your environmental responsibilities - good environmental practices; PPG 6: Working at construction and demolition sites GPP 21: Pollution incident response planning and GPP 22: Dealing with Spills.
8. Flooding / Poor Weather Contingency	Ahead of works commencing, the Site Manager will review the weather forecast on a regular basis. Works may be postponed if poor weather conditions are forecast. The site manager will register for flooding alerts from SEPA for the River Clyde. In the event of an alert, works will cease and all materials will be moved to the laydown area. At the end of each shift, all equipment and material will be removed from the scaffold. These will be relocated to the laydown area (set back from the railway line). The Site Manager (or another nominated individual) will have responsibility for ensuring that this is undertaken at the end of every shift.
9. Pre-works & Mobilisation (include map of proposed site set up)	All site operatives will be briefed in the contents of this Detailed Construction Method Statement (DCMS) , ESMP and the conditions of the Marine Scotland Licence (reference TBC) prior to works commencing and will sign the briefing sheet. All site operatives will receive a site induction and regular environmental tool box talks as outlined in the Projects Environmental & Social Management Plan (ESMP). Site clearance will take place outside of the breeding bird season and devegetation will be undertaken using brushcutters and chainsaws where appropriate. It is the intention for Story to minimise the amount of devegetation required. Where devegetation of larger trees is required, these will be logged and offered to the landowner. Branches and shrubbery will be chipped and either spread within the Network Rail Boundary or will be removed from site to an appropriate waste licensed facility. If green waste is to be chipped or spread to land, the appropriate Waste Management Exemptions will be applied for prior to the activity being undertaken. It is anticipated that the INNS on site will be disturbed. Story have employed JKS to provide consulting services and treatment plans for these interface locations. All site operatives will be briefed on their presence. An INNS Management Plan will be developed. Story are planning to access the worksite via rail and new access tracks are not anticipated. At the end of the works any disturbed land will (anticipated to be the laydown area only & foundation for the scaffold around the abutments) be reinstated to its original condition. Any additional materials or waste will be removed from site in accordance with the Site Waste Management Plan.

	Ahead of works commencing, Network Rail / Story will inform all 3rd party users of their intention to undertake the works. This will include, statutory stakeholders including Marine Scotland, CRF, Glasgow City Council, as well as residential and commercial premises within 200m of the work location.
10. ECoW	Story's Environmental Engineer will carry out the role of ECoW onsite for the duration of the works. The role will involve weekly visits to ensure that environmental good practice is maintained and to review records. The ECoW will ensure that all site operatives are briefed and will ensure compliance with any consents. The ECoW will also monitor that construction works are being carried out in line with the project's Environmental and Social Management Plan (ESMP), DCMS and any Marine Scotland licence conditions. ECoW site visit inspection reports will be recorded on Story's in-house reporting system; Alcumus, with any actions identified via the system being allocated to individuals onsite to resolve. It will be the ECoW's responsibility to determine the appropriateness of all the pollution prevention measures onsite and to adapt or specify measures appropriate to site conditions.
11. Proposed Monitoring	<u>The Worksite</u> The work site is to be fully encapsulated and therefore it is not anticipated that there will be any direct pathway from the worksite to the River Clyde. However, there is a risk that when the encapsulation is being cleaned or disassembled that fines could enter the River Clyde. All fines will be contained in a suitable container, prior to being removed from site. Robust housekeeping measures will be in place throughout the works. The encapsulation will be inspected by the Site Manager (or a suitably qualified person) on a daily basis to ensure that it is robust and fit for purpose. <u>The Site Compound / Laydown Area</u> Prior to commencing any works onsite Story will identify appropriate water quality monitoring locations. These identified locations will be visually monitored throughout the works and will be located upstream and downstream of the works and will also concentrate on site drainage and refueling locations associated with the site compound (and laydown area if appropriate) etc. Story will also identify water quality triggers, which could indicate a pollution event, which may warrant further investigation. Water quality triggers will include but not be limited to discolouration, foam and hydrocarbon on the surface of the water. On a daily basis, Story will undertake daily visual inspections of the River upstream and downstream of the works. Findings from these visual inspections will be recorded, held onsite and will be made available for inspection if requested by SEPA. Visual inspections will be completed by the Story Environmental Engineer. If during the visual monitoring a water quality trigger is noted, then water samples will be collected and will be sent to a laboratory for analysis. The samples will then

	be compared against baseline samples to determine if water quality deterioration has occurred. If a pollution event is suspected and/or identified it will be dealt with in accordance with Story internal Environmental Incident Response Plan (FORM/415B Environmental Management Plan (NWR-Works) Revision 1, September 2017) and will comply with the incident response conditions as outlined in the Marine Licence.
12. Detailed Phasing for Licensable Construction Activities including proposed mitigation	A detailed work package plan will be developed and will be appended to this DCMS as Appendix B, four weeks ahead of works commencing onsite. However at the time of writing the following phases of work are anticipated: • Detailed schedule of steelwork defects with prioritisation of repairs and proposed repair details designed to provide RA8@65mph. • Provision of condition-led repair detail for addressing the cracking in compression elements. • Provision of new corrosion protection system to all exposed metalwork, which is to provide a service life of 25 years in a C4 high environment painted to match the colour of adjacent structure (Holly Green 14C39). • Replacement of all underslung walkway elements with new GRP walkway system designed to accommodate loading of 5kN/m2 and include appropriate edge protection. • Spot replacement of defective timbers in trackside walkway. • • De-vegetation of 5m envelope (within Network Rail boundary) of the structure. Roots to be treated to prevent regrowth. All blasting, painting and steelworks shall be carried out within the fully sealed & encapsulated section of the scaffold. Floodlighting of construction areas close to the watercourse will be avoided where possible and if unavoidable (due to health and safety implications), directional lighting will be adopted (through the use of shields, hoods or limiting the height of lighting columns).
	<u>Reinstatement of Works Areas</u> The laydown area will be re-landscaped and returned to its original profile and any locations with bare soil will be covered in bio-degradable geotextile, pinned and reseeded.
13. Marine Scotland Licence Conditions	**Section to be updated on receipt of Licence**

14. Environmental Risks Associated with the Works	• Run off into the River Clyde or drains from exposed areas (particularly the laydown area). • Fuel spills entering the River Clyde and/or drains • Plant debris entering the River Clyde • Silt run off from stripped areas (laydown areas only) • Flooding washing away equipment in the laydown area. • Contamination of the River Clyde through dust / fines during grit blasting. • Degradation of the environment with waste materials • Paint / chemicals entering the River Clyde. • Disturbance of protected species and fish during the works.	
15. Pollution Prevention	During the works, Story will employ the following pollution prevention techniques to address the environmental risks associated with the works.	
	Site clearance for the Laydown area	• Silt fencing installed at work areas (dug in at ground level) and next/adjacent to the Clyde /drains to remove silt from run-off. • Refuelling and oil storage carried out in line with GBR 26 and 28 and STORY's procedures • Avoid unnecessary vegetation clearance. • Where possible maintain a buffer zone of vegetation on the bank of the watercourse. • Clear all vegetation required to facilitate the works outside of the breeding bird season, where possible. • Plant debris removed from watercourses / drains on completion of or netting installed to prevent debris falling into waterbodies. • The laydown area will be set back from the edge of the river, to allow for flooding.
	Dust / Fines	• Work areas will be fully encapsulated. • Daily inspection of encapsulated areas and corrective actions implemented asap, following the identification of a defect. • Daily cleaning of work area. • Robust housekeeping techniques. • All fines / dust to be captured / contained and removed from site in accordance with Project Site Waste Management Plan.
	Stockpiles	Not anticipated
	Silt	• Robust silt mitigation will be implemented on site. During the initial site preparation works prior to the start of construction, there will be a requirement for the implementation of temporary measures to ensure controlled management of runoff draining from the construction site. Runoff from the construction site would

		not be allowed to drain directly into the Clyde and would be filtered and attenuated using a variety of measured alone or in combination including: Sediment traps; Settlement ponds and temporary storage areas; Silt Busters or other proprietary treatment measures; Sediment barriers such as silt fences, and earth bunds (used and positioned in appropriate locations) and cut off ditches etc. • Plant materials (debris, residue, any other forms of pollution on site) must not be allowed to pass into any watercourse or the road drainage system (i.e. drains and gullies).
	Waste	• Working areas will be inspected on a daily basis. • All waste will be stored in the site compound, in segregated, labelled skips, as per the Site Waste Management Plan. • Waste materials will be removed from site on a regular basis. • Disposal of waste will be undertaken in accordance with the Waste Management Licensing Regulations. • All fines arising during the grit blasting operation will be placed in a sealed container and will be stored in the site compound until the containers are removed from site in accordance with the Site Waste Management Plan.
	Biosecurity	• All plant and equipment to be washed before being used onsite. • Areas of Japanese Knotweed, Himalayan Balsam and Giant Hogweed to be identified by JKS, buffered with signage installed. All site operatives to be briefed on the location of the INNS. • An INNS Management Plan will be developed, and specialist contractors employed to ensure the works do not result in the spread of these species. • Staff to be briefed on biosecurity protocols. • Clean operatives boots / equipment before commencing onsite (with Virkon solution or similar disinfectant) to prevent the spread of INNS, pests or diseases.
	Refuelling	• Designated refuellers only and a designated refuelling area should be sought if required. • Refueling in line with Story refueling procedure, CAR GBRs and GPPs. • No refueling within 10m of the Clyde or any drains. • All plant and equipment will have spill kits. Spill kits should be quickly accessible to capture any spills should they occur. • Additional spill kits present at the site compound. • All personnel trained in spill response procedure. • All plant well maintained.

		• Daily inspection of plant. • When not in use, all fuel and chemicals will be stored in a suitably bunded container as per Story refueling procedure, CAR regulations GBR 26 and 28. • Fuel bowsers should be stored on an impermeable and fully bunded surface at least 10m away from drains and watercourses. • Generators and the static plant may have the potential to leak fuel and/or other hydrocarbons. Generators and plant with a capacity of greater than 200 litres should have an internal secondary containment system (otherwise referred to as a bund) with a capacity of 110% of the plant's maximum container volume. If generators or plant with a capacity of fewer than 200 litres do not have secondary containment systems (i.e. not bunded) then drip trays should be supplied beneath the equipment with sufficient capacity to contain 110% of the plant's maximum container volume. • During refuelling of smaller mobile plant, a funnel should be used and drip trays in place. Care should be taken to reduce the chance of spillages. • The ground/stone around the site of a spill should be removed, double bagged and taken off site as special contaminated waste. • All spills should be logged and reported in line with the Marine Licence and the Incident Response Procedure within the ESMP. In the event of any spills into the water environment, all works MUST STOP, and the incident be reported to the project manager and the Story Scotland environmental advisor.
	Chemical & fuel storage (including paint)	• Storage of COSHH material, oil and fuel containers, and any other materials should be at least 10m away from any watercourses, drains and/or waterbody. • Spill kits will be present on site and staff should know how and when to use them. • All plant and equipment should be regularly inspected for any signs of damage and leaks. A checklist should be present to make sure that the checks have been carried out; • All site drains, springs and waterways that could be affected by site works will be identified by the site manager. • Where storage of plant material is required next to gullies and drains, these must be blocked with heavy-duty plastic or similar. • Painting of the structure will take place within the encapsulation.

		• Paint to be removed from the structure when it is not in use.
	Noise / Light	• All works will comply with BS 5228 +A1:2014 Code of practice for noise and vibration control on construction and open sites. • Appropriate mufflers and silencers will be fitted to plant and equipment. • No idling of engines. • Story will liaise with the CRF regarding other mitigations that can be employed to reduce noise disturbance on aquatic species. This may involve avoiding time periods where fish are particularly active (dusk and dawn) for grit blasting / steel repairs. • Ecologist recommendations implemented to avoid disturbance on protected species. • Lighting plan to be developed as per the ecologist's / CRF to prevent and disturbance to fish or protected species.
	Leaking or vandalised equipment	• The site compound will be manned 24/7. If site operatives are not present, the site will be locked with a security guard in place. • Plant/equipment will be removed to the site compound when not in use. • All plant and equipment will have spill kits. • Additional spill kits present at the site compound. • All personnel trained in spill response. • All plant, equipment either removed from site on a daily basis or stored in a secure location.
16. Incident Response	***This Section will be updated on issue of the Marine Scotland licence to detail emergency procedures and reporting to Marine Scotland**** If a spillage, emergency spill kits (granules, pads, mats and booms) will be used to contain the spillage. The spill will be contained, and the supervisor will be notified. Spill kits are located within the site compound and at appropriate intervals on the scaffold encapsulation. In the case of any potential silty water arising, all materials required to deliver the above mitigations will be made available to reduce flow and acts as filters. Spillages need to be prevented from entering the unnamed watercourses. Booms and absorbent pads will be used in the watercourse around any spillage as well as downstream of any spillage. The locations of emergency spill kits and mitigation measures will be detailed in task briefings. If a spillage cannot be contained and is likely to enter the unnamed watercourse and/or drains it is essential that the local SEPA office, Marine Scotland and water authority are informed. All spillages will be reported by the Project Manager and	

	will be managed in accordance with STORY's procedure for Environmental Incident Responses Plan – FORM 428. **Note: at the time of writing, all SEPA offices are closed due to the ongoing Covid Restrictions. In the event of an Environmental Incident contact the SEPA Pollution hotline on 0800 80 70 60 and visit https://www2.sepa.org.uk/EnvironmentalEvents to submit an incident report.** The emergency spillage procedure will be displayed in the site compound, and all site personnel will receive a briefing on emergency procedures at the induction and in toolbox talks throughout the project.

Appendix A – Ecological Appraisal

ECOLOGIST DAILY DIARY

PROJECT TITLE:	Story Year 4 PEAs	PROJECT NO:	18546

START DATE/TIME	SITE	IKM REQUESTED WORK	COMPLETED DATE/TIME
21.09.21 11:30	UB 052/001 Clyde Viaduct Dalmarnock/Rutherglen ARG2, 0m 880yrds. G73 1AE Rutherglen	Preliminary Ecological Appraisal and Preliminary Roost Assessment	21.09.21 13:00
WEATHER:	Dry and sunny, 45% cloud and wind speed of 9mph	**TEMPERATURE:**	11°C

SITE COMMENTS

GENERAL

IKM Consulting (IKM) was commissioned by Story Contracting (Story) to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of the structure UB 052/001 Clyde Viaduct (Dalmarnock/Rutherglen) to determine potential and confirmed ecological constraints.

The works to the underbridge are part of the wider CP6 Year 4 package of works across Scotland.

The survey area included the underbridge (the site) and immediate surroundings within 30m where access was possible. No consideration has been given to the detailed scope of works, access routes or any laydown/compound areas as these are currently unknown.

METHODOLOGY

Desk Study

A search for designated sites within 5km of the site was made through data pulled from SNHi SiteLink, and a review of areas of ancient woodland within 1km of the underbridge was made through the Ancient Woodland Inventory (AWI) using QGIS.

Field Survey

The preliminary ecological appraisal of the proposed works site and adjacent habitats where safe access was available was undertaken by Adrian Taylor on the 21st September 2021, to ascertain potential and confirmed ecological constraints and to provide recommended mitigations to facilitate the works. Specific features identified during the survey are shown in photographs provided at the end of the report.

The habitats within the Study Area were assessed in terms of their suitability for protected species such as badger (*Meles meles*), bats, birds, otter (*Lutra lutra*), water vole (*Arvicola amphibious*), fish and reptiles. Any evidence of the presence of these species, including sightings, prints, feeding signs, droppings, hairs and resting sites were recorded.

Species such as red squirrel (*Sciurus vulgaris*), pine marten (*Martes martes*), great crested newt (*Triturus cristatus*) and freshwater pearl mussel (*Margaritifera margaritifera*) have been scoped out of this appraisal as the survey area lacks suitable habitat for these species within the immediate survey area or the survey area is out with their known geographical ranges.

The value of all structures and mature trees within the survey area were assessed in terms of suitability for roosting bats in line with current best practice guidance (Collins, 2016). Where necessary, these features were scrutinised

with binoculars. Any signs of roosting bats such as staining, and droppings were recorded, and droppings were to be collected for further analysis. No detailed internal inspections of tree roost features have been undertaken, but an external ground-based assessment has been undertaken.

During this inspection an assessment was also made to assess the potential or current use of the structures and surrounding vegetation by nesting birds which included a search for current nests, evidence of previous nesting and evidence of presence of birds including roosting individuals and droppings.

Non-native and invasive species such as Japanese knotweed (*Fallopia japonica*), Giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*) were also identified and mapped as far as possible, as well as other non-native plant species relevant to the Wildlife and Natural Environment (Scotland) Act (WANE) 2011.

Limitations

This survey represents a 'snapshot' of the species present at the time of the survey. The absence of evidence of a protected species from the survey does not always indicate that a species is absent from any given area where suitable habitat is present.

The assessment aims to provide a baseline of potential or confirmed (where possible) ecological constraints and is not designed to replace the need for further detailed surveys where considered necessary, based on the project proposals and assumptions.

The survey was completed during the main survey season for many of the receptors potentially present at this location and further survey has been recommended where necessary. It is therefore considered that a robust assessment has been completed and the aims of the study met with no significant limitations.

No trackside areas were entered during this survey. All trackside areas were viewed from non-trackside vantage points. Access was restricted to footpath only.

RESULTS

Desk Study

The underbridge is not located within any statutory or non-statutory designated sites.

1.1km south-west of the structure is the Malls Mire Nature Reserve. There are no other statutory or non-statutory designated sites within 5km of the structure.

There are no areas of ancient woodland recorded within 1km of the structure.

Field Survey

UB 052/001 is a 7-span viaduct carrying 2No. electrified tracks of the ARG2 line and a single non-electrified ballasted track of the LNE Bridgeton Yard line (Goods line) over the River Clyde, disused land, and a footpath in Dalmarnock, between Rutherglen Central Junction and Finnieston Junction. The Clyde walkway runs parallel to the River.

Habitat

The bridge spans over the River Clyde, in the River Clyde catchment of the Scotland River basin. The river is approximately 50m wide and of significant depth. All embankments within 30m of the bridge were vegetated with species including tall ruderal rosebay willowherb, bramble and nettles. Tree species within the works area included willow, sycamore, poplar and elm.

ECOLOGIST DAILY DIARY

Protected Species

Birds

Underbridge

There was no evidence of nesting birds within the structure however it is likely to offer a suitable nesting habitat for species common to the geographical area such as common pigeon (*Columba livia*).

Surrounding area

The vegetation on the railway embankment and surrounding habitats, offer substantial suitable nesting habitat for birds.

Bats

Underbridge

The underbridge was assessed in terms of potential to support roosting bats. Access was restricted to the footpath to the north of the bridge. Potential roost features were noted on the southern wingwall (but not limited to), where missing pointing was identified creating a potentially suitable feature for roosting bats to use (see photo). A large bat box, potentially suitable for hibernating bats had been installed on the north facing spandrel wall (see photo) suggesting bats have been known to be present. The barrel of the bridge in this location also appeared to have been renovated so the box may have been installed to replace an existing roost site as park of the works. As this is the case, the structure has been given a bat roost potential of ***Moderate***.

Trees

All trees within 30m of the site were assessed in terms of potential to support roosting bats. There were no trees with features beyond ***Negligible*** potential to support roosting bats. In general, the trees within 30m of the underbridge were in good condition, showing no evidence of damage or disease that may lead to cavities or potential roost features that could be exploited by roosting bats.

The river corridor and surrounding embankments provide an opportunity for foraging and commuting bats within the wider landscape.

Otter

No evidence of otter was identified within the survey area during the time of inspection. The river, its banks and surrounding woodland habitats are considered suitable to provide opportunities for resting sites and foraging. It was not possible to undertake a thorough assessment of the river as access was restricted to the footpath.

Badger

No evidence of badger was identified within the survey area during the time of inspection. The wider vegetated railway embankments and woodland habitats are considered to suitable to provide opportunities for badger foraging and sett creation.

Water vole

No evidence of otter was identified within the survey area during the time of inspection. Given the width and depth of the river, habitat would be sub-optimal however the vegetated embankments potentially could provide a habitat for water vole burrows. It was not possible to undertake a thorough assessment of the river as access was restricted to the footpath.

Reptiles

No evidence of reptiles was identified within the survey area during the time of inspection. As the banks surrounding the structure are heavily vegetated and disturbance levels from the public are high, it is unlikely the surrounding habitat has potential to support reptiles, and therefore reptiles are not considered further in this report.

ECOLOGIST DAILY DIARY

Fish

Fish were noted in the river during the time of inspection. Therefore, suitable habitat is present within the river to support fish species.

Invasive Non-native Species (INNS)

Evidence of INNS were identified within the survey area. Stands of Giant hogweed are present on the eastern side of the structure (see photo). Giant hogweed and Himalayan balsam are also present in immediate vicinity of the structure close to the footpath.

Buddleia was also noted beside the footpath.

RECOMMENDATIONS

Desk Study

Any works should not have a direct or indirect impact on the Local Nature Reserve listed above, as it is not structurally or functionally connected to the underbridge.

Habitats

The habitats likely to be lost during any works and/or installation of access tracks should, as a minimum be returned to its previous state. Where possible all riparian trees should be retained. Where this is not possible a replacement scheme should be in place with a ratio of 3:1.

Protected Species

Birds

The bridge has potential to support nesting birds and therefore works should be undertaken out with the breeding bird season. Furthermore, the adjacent habitats are also considered suitable to support common nesting species. If works are programmed within the bird breeding season (recognised as March-August, inclusive, in Scotland) a nesting bird check must be carried out of all vegetation, ideally within 48 hours of clearance works, but a maximum of seven days, by a suitably qualified ecologist.

If nesting birds are confirmed to be present, then all works in the vicinity of any nest must be delayed until the young have fledged, and a suitably qualified ecologist has confirmed the nest is no longer in use. An appropriate exclusion area will also be put in place, which will be dependent on species and the topography of the ground conditions. This will be determined by the ecologist at the time of discovery.

Bats

As the underbridge offers potential features for roosting bats, a bat activity survey will be required to fully rule out the presence of roosting bats. This will comprise two bat activity surveys, either a dusk emergence or a dawn return survey, carried out at the structure between May and August during suitable weather conditions.

If works are being undertaken at night, a lighting plan should be in place to ensure that site lighting is restricted to the works area only with minimal light spill to the wider corridor and embankments. The area should not be lit when site staff are not in attendance.

Badger

Though no evidence of badger was identified within the proposed work area, the habitats provide opportunity for both foraging and sett creation. As such, badger may use the area from time to time as part of a foraging resource. All efforts should be made to ensure a safe work site, which must include capping all exposed pipes / containers

and covering all open excavations (if required for the works) or providing an adequate means of escape should any animals fall in.

If vegetation clearance required as part of the works, a pre-construction survey of all access routes, compounds and work sites is recommended prior to any commencement of work to determine whether badger has subsequently began using the surrounding suitable habitat for sett creation.

Otter

Though no evidence of otter was identified within the proposed work area, a full survey was not undertaken, and the river represents good quality for habitats providing opportunity for resting sites and foraging. It is therefore recommended that a pre-construction otter survey 200m upstream and downstream of the bridge is undertaken prior to any commencement of work to determine where any resting sites are present within the locality of the bridge.

The following general mitigations should be followed during works;

• All works in or near the river will follow best practice measures to ensure their protection against pollution, silting and erosion;

• If the river is to be dammed to accommodate the works, the dam structure must be not be so high as to prevent free movement of otter up and down the burn;

• Any temporarily exposed excavations, trenches or holes must be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site to allow animals to escape.

• All works must be timed to avoid the periods around dusk and dawn when otters are most active; and

• An emergency procedure should be implemented by site workers if otters or potential otter resting sites are unexpectedly encountered. All work within 30m (100m for high noise/vibration activities) or 200m for breeding sites will cease until a suitably qualified ecologist has inspected the site and determined the appropriate course of action.

Water vole

Although no evidence of water vole was identified during the survey, a full survey was not undertaken and the vegetated embankments could potentially provide habitat for water vole burrows. Therefore, if vegetation is to be removed it is recommended a pre-construction water vole survey is undertaken 200m upstream and downstream of the bridge to ascertain if water vole burrows are present.

Fish

It is considered unlikely that fish will be a significant constraint to the works but should instream works form part of the scope then a fish rescue plan should be in place or ensuring continuous passage during the works.

INNS

Under the WANE act it is an offence to allow the spread of any species out with its natural range. Given the presence of Buddleia, Himalayan balsam, Giant hogweed and Japanese knotweed within the potential scope of influence, suitable measures should be in place to ensure that the species is not spread as a result of the proposals. It is therefore recommended that a management plan is in place to address these potential issues and ensure legal compliance.

Collins (2016) Bat Surveys for Professional Ecologist – Good Practice Guidelines, 3rd Edition. Bat Conservation Trust, London.

ECOLOGIST DAILY DIARY

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal. 2nd Edition, Chartered Institute of Ecology and Environmental Management, Hampshire. CIEEM (2017) Guidelines for Preliminary Ecological Appraisal. 2nd Edition, Chartered Institute of Ecology and Environmental Management, Hampshire.			
COMPLETED BY:	Joanne Simpson	**DATE:**	
CHECKED BY:			

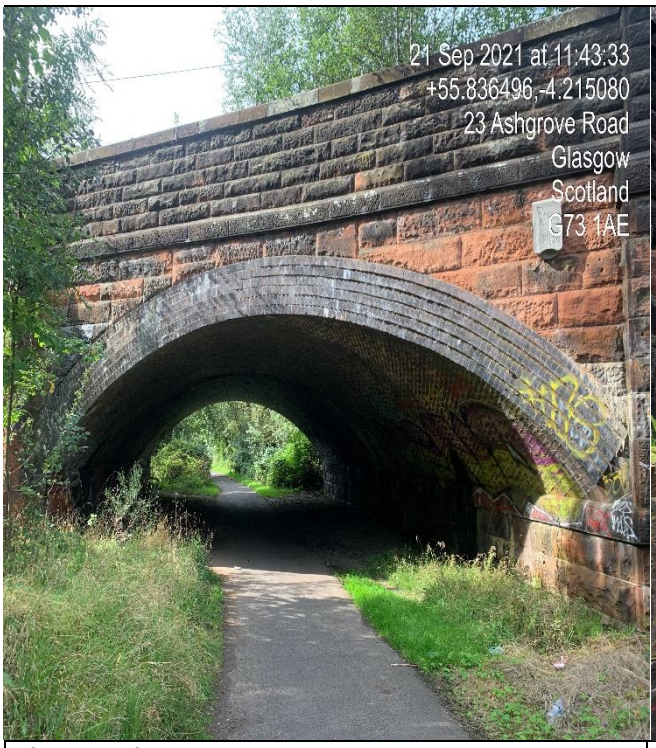


Photo 1- Bat box on structure

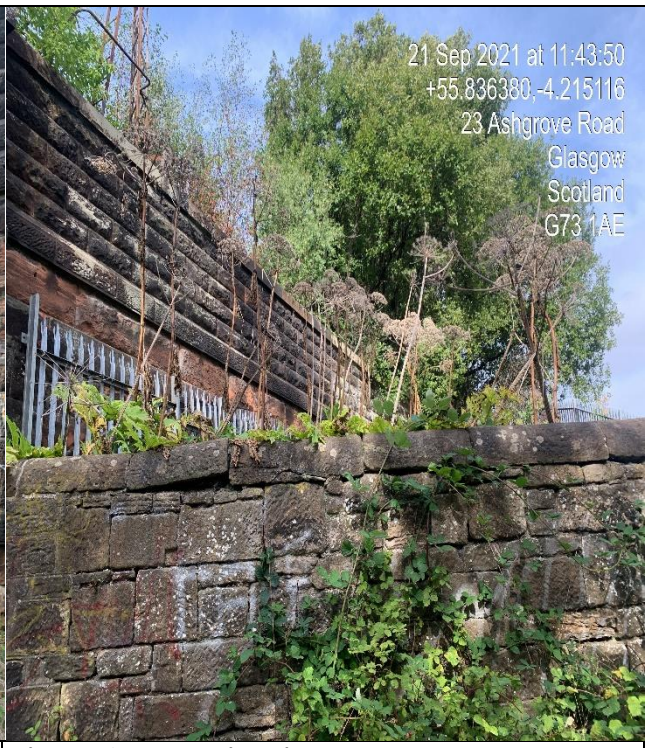
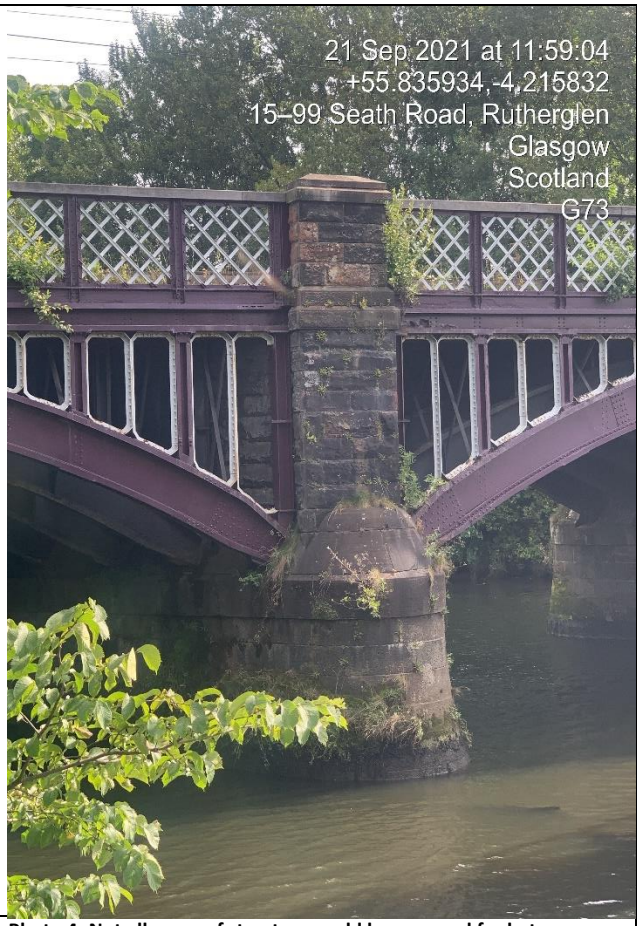


Photo 2- Giant Hogweed Stands

ECOLOGIST DAILY DIARY

	
Photo 3- Crevice on abutment	**Photo 4- Not all areas of structure could be assessed for bat potential**

ECOLOGIST DAILY DIARY

Appendix B: Draft Work Package Plan – Being Developed