

Environment Agency

NEC4 professional service contract (PSC)

Scope

Project / contract information

Project name	Wessex Bridge Inspections
Project 1B1S reference	ENVRESW001144
Contract reference	28873
Date	17/12/2021
Version number	1
Author	

Revision history

Revision date	Summary of changes	Version number

This Scope shall be read in conjunction with the version of the Minimum Technical Requirements current at the Contract Date. In the event of conflict, this Scope shall prevail. The service is to be compliant with the version of the Minimum Technical Requirements.

Wessex Bridge Inspections 2022

1 Background Information

- a) The *Client* owns a large number of bridges (Highway bridges, Field access bridges and footbridges). As a competent authority the *Client* has a statutory duty to carry out inspections to ensure its bridges are maintained to an acceptable standard and take appropriate action/remediation works, as necessary.
- b) The *Client's* key persons use third party bridges as access routes to carry out essential maintenance works. These third-party bridges need to be inspected to ensure they are safe for *Client* operatives to use. This excludes public highway bridges used by the *Client*, which are maintained by other competent authorities.
- c) This commission is to undertake required inspections at numerous *Client* and non-*Client* owned bridges (as identified in Appendix 1 Bridge Inspection Programme for Wessex Bridges 2022 and the agreed Programme as stated under Section 3 Time, within Contract Data Part 2).
- d) The information obtained from the inspections will form the *Consultant's* recommendations for proportionate remedial works, which are subject to a separate contract.
- e) The following appendices shall form part of this contract as follows:

Appendix 1 – Bridge Inspection Programme for Wessex Bridges 2022

Appendix 2 – Bridge Inspection Process

Appendix 3 – General Inspection Form Example Output (Highway Bridge)

Appendix 4 – South West Area Bridges Inspection Database

Appendix 5 – Principal Inspection Form Example Output

Appendix 6 – Principal Inspection Report Example Output

- f) The number of bridges to be inspected is subject to change during the commission. A change to the number of bridges shall trigger a Project Manager's instruction and Compensation Event.

2 Scope of Services

2.1 Scope Requirements

The *Consultant* shall use its skill and care to deliver the *services* to inspect the following number of bridges across the Environment Agency Wessex Area:

Table 1

	Year 2022
Type	
<i>Client</i> Owned Bridges PRINCIPAL INSPECTION (PI)	21
<i>Client</i> Owned Bridges GENERAL INSPECTION (GI)	64
<i>Client</i> Owned Pedestrian Bridges (GI)	20
Non- <i>Client</i> owned Bridges (GI)	63

	Year 2022
Type	
Total	168

2.2 Description of each type of inspection to be undertaken by the *Consultant*

(a) *Client* Owned Bridges

The *service* shall be delivered in accordance with the following:

- i. **General Inspection** of bridges as detailed in Design Manual for Roads and Bridges (DMRB), production of General Inspection Form (Appendix 3 General Inspection Form Example Output (Highway Bridge)) and updating of records in the bridges database (Appendix 4 South West Area Bridges Inspection Database) and pursuant to Clause 2.11 Bridges Spreadsheet / Database of this Scope); and
- ii. **Principal Inspection** of bridges as detailed in DMRB, production of Principal Inspection Form (Appendix 5 Principal Inspection Form Example Output); production of Principal Inspection Report (Appendix 6 - Principal Inspection Report Example Output) and updating of records in the bridges database (Appendix 4 South West Area Bridges Inspection Database) and pursuant to Clause 2.11 Bridges Spreadsheet / Database of this Scope)
 - a) The *Consultant* shall use its skill and care to deliver services for General and Principal Inspection in accordance with:
 - a. Standards and procedures stated in the relevant and current section of the DMRB. Weblink: <https://www.standardsforhighways.co.uk/dmrb/>
 - b. Scope requirements as stated pursuant to Clause 2.5
 - c. EA Bridge Inspection Process Document (Appendix 2)

(b) *Client* Owned Pedestrian Bridges and non-*Client* owned bridges

The *service* shall be delivered in accordance with the following

- i. **General Inspection** of bridges as detailed in Design Manual for Roads and Bridges (DMRB), production of General Inspection Form (Appendix 3 General Inspection Form Example Output) and updating of records in the bridges database (Appendix 4 South West Area Bridges Inspection Database) and pursuant to Clause 2.11 Bridges Spreadsheet / Database of this Scope).
 - a) The *Consultant* shall deliver services for *Client* owned pedestrian bridge inspections in accordance with:
 - a. Standards and procedures stated in the relevant, current section of DMR. Weblink <https://www.standardsforhighways.co.uk/dmrb/> ;
 - b. Scope requirements as stated pursuant to Clause 2.5; and
 - c. EA Bridge Inspection Process Document (Appendix 2).

(c) Any Bridge

- i. The *Consultant* shall be responsible for identification of any remedial works during the inspections:
 - a) To ensure the *Client* meets any legal/statutory obligations in respect of each bridge (e.g. public and operational Health & Safety requirements);

- b) To identify any interventions that could be undertaken in the short term to reduce whole life cost;
 - c) Identify any limitations that should be placed on the use of a structure by operational key persons; and
 - d) Indication of the likely repair cost.
 - ii. The *Consultant* shall ensure all inspection data, intelligence and information updates are added to the bridges database (Appendix 4), pursuant to Clause 2.11.
- The *Consultant* shall ensure the latest versions of all files are uploaded into Asite (or its successor system, such as Microsoft SharePoint or any other system utilised by the *Client* Organisation) upon 5 working days of completion or earlier, and in compliance with the Building Information Modelling (BIM) file naming requirements.
- iv. The *Consultant* shall ensure all inspected sites have a minimum of 3 photographs taken. One for each side elevation and one for the deck. These must be clearly labelled and included within the Bridge Condition Indicator (BCI) form. Any defects identified during the inspection must also be photographed, labelled and included in the BCI form in a similar manner, to clearly define the defect.

2.3 Contract Service Management Activities

The *Consultant* shall:

- Liaise with the *Client* related to any service Scope Requirements;
- Be responsible for ensuring any consents, notices and licences are in place along with any other permissions that may be required;
- Undertake financial monitoring and reporting, resource planning and risk reviews;
- Prepare bi-monthly progress reports for issue to the *Client* to be pre-agreed and approved by the *Client's Service Manager*;
- Attend bi-monthly virtual progress meetings (1 hour duration) with key personnel including the *Consultant's* project manager, project director & lead bridge engineer. These meetings are to incorporate Early Warning meetings as a standard agenda item;
- Prepare meeting minutes to be circulated amongst key personnel no later than 10 working days after the meeting;
- Provide quality assurance, including Formal Inspection Review, and reviews by the *Consultant's* Project Director;
- Review and maintain project programme as required, and specifically 2 working days in advance of each progress meeting;
- Review and maintain early warning register as required, and specifically 2 working days in advance of each progress meeting;
- Liaise with the *Client's* estates team and field teams where required to complete the inspection programme;
- Ensure the inspection programme is aligned with the lowest reasonably practicable water level based upon weather forecast, water penn level and tide level pursuant to Clause 2.6 constraints; and
- Immediately raise any dangerous or urgent problems to the *Client's Service Manager* and other key client personnel with any bridge being inspected to the *Client*, including a recommended course of action.

2.4. Drawings, Site Information or Reports already available

The *Client's Service Manager* shall ensure that drawings, site information and existing reports are made available, subject to *Client's* approval of the *Consultant's* submission request for access to A-site. The data, intelligence and information consist of previous inspection reports and records of remedial works undertaken.

2.5 Specifications and standards to be used

- a) Design Manual for roads and bridges - CS 450 - Inspection of highway structures
Source
<https://www.standardsforhighways.co.uk/prod/attachments/c5c2c3e5-f7f3-4c94-8254-184e41ccd1a0?inline=true>
- b) Well-managed Highway Infrastructure: a code of practice
Source
<https://www.thenbs.com/PublicationIndex/documents/details?Pub=DFT&DocID=319570>
- c) Masonry arch bridges: condition appraisal and remedial treatment (2006)
Source
<http://www.ciria.org/service/AM/ContentManagerNet/ContentDisplay.aspx?ContentID=8987>
- d) Iron and steel bridges: condition appraisal and remedial treatment (2008)
Source
<http://www.ciria.org/service/AM/ContentManagerNet/ContentDisplay.aspx?ContentID=8993>
- e) Drystone retaining walls and their modifications: condition appraisal and remedial treatment
Source
<http://www.ciria.org/service/AM/ContentManagerNet/ContentDisplay.aspx?ContentID=11607>

For avoidance of doubt, the *Consultant* shall be responsible for using the latest version or their successors for specifications and standards which are subject to statutory obligations.

2.6 Constraints on how the *Consultant* Provides the Service

- a) Working hours are limited to 8am to 6pm, Monday to Friday, unless otherwise agreed with the *Client*;
- b) Access is to be arranged by the *Consultant* (some sites will require notice as they are on *Client* operational sites);
- c) The inspections are to be carried out during the period of 'Winter Pens' (1st December to 31st March) where the watercourse levels are typically held lower than in the 'Summer Pens'; and
- d) The *Consultant* is not expected to identify hidden defects associated with a structure, such as a design defect. If any bridge element is un-inspectable, this must be made clear within the BCI form. If critical elements are un-inspectable the inspection must be aborted.

2.7 Requirements of the Programme

- a) The *Consultant* shall submit inspection reports/forms to the *Client's Service Manager* within 4 weeks of the pre-agreed inspection programme as specified in Contract Data Part 2. As inspections are carried out the outputs shall be submitted to the bi-weekly *Service Manager*; and

- b) Bridge database shall be fully completed by 30th April 2022 in accordance with the requirements of Clause 2.11 (Bridges Spreadsheet Database); Appendices 2 to 6 inclusive and the outcome reports uploaded into Asite in the specified BIM format.

2.8 Efficiencies

- a) The *Consultant* is required to assist the *Client* to identify and deliver 15% efficiencies within this contract by 30th April 2022 through more efficient working practices, and working closely with all to identify any potential efficiency.
- b) The *Consultant* must identify options and efficiencies, and their financial value. Examples of these may include adjusting the inspection programme to reduce the number of bridge visits required or the use of technology to compile reports whilst on site undertaking the inspection.

2.9 Flexibility of the programme

- a) The *Client* reserves the right to add or remove bridge assets from the inspection programme or change the type of inspection required.

2.10 Access

- a) The *Consultant* shall arrange access to sites with the relevant *Client* field teams where access is not publicly available;
- b) The *Consultant* shall be aware that many water levels within Wessex are controlled by penning, pumping or affected by rainfall. Before planning inspections, the *Consultant* shall be responsible for contacting the relevant field teams and reach agreement for best plan inspection around water levels; and
- c) Bridges may be inaccessible due to vegetation growth. If this prevents the bridge being effectively inspected, then the *Consultant* shall contact the *Service Manager* within 5 working days of the inspection being aborted. The *Consultant* shall provide evidential details in the format of photos to show vegetation growth preventing inspection shall be provided.

2.11 Bridges Spreadsheet / Database

- a. The *Consultant* shall maintain and provide an up to date database with latest data, intelligence and information and the system functionality will reach an equivalent (or improved) performance level as specified within Appendix 4. This can take the form of specified reporting tool provided in Appendix 4, subject to approval by the *Client's Service Manager*. Critical data and information requirements include:
 - i. Bridge list including bridge name, type, location, asset references;
 - ii. BCI average and BCI critical scores;
 - iii. Programme showing which bridges are due to be inspected in which year, and the type of inspection required; and
 - iv. Historic data must be kept within the database provided by the *Consultant*.
- b. In accordance with Clause X9 Transfer of Rights, stated within the contract, all data and materials belong to the *Client*.

3 Key Persons

- a. The *Consultant* shall ensure that all key persons who carry out inspections are stated in Contract Data Part 2. In the event of change, the *Consultant* shall seek prior acceptance of any change via Clause 61 Notifying Compensation Event for *Service Manager* assessment.

Appendices

Refer to Page 2