[redacted]

NEC4 professional services contract (PSC)
Scope

Project / contract Information

Project name	Bridge Inspections Bundle LNA
Project SOP reference	[redacted]
Contract reference	[redacted]
Date	[redacted]
Version number	3
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
	First issue	

This Scope should 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 *services* are to be compliant with the version of the Minimum Technical Requirements.

[redacted]

[redacted]

Details of the Scope

Details of the Scope are as follows.

1. Description of the *service*:

The *Client* uses a number of bridges in the [redacted] areas for operational purposes. Typically, these bridges are not public highway and are owned either by the *Client* or by the adjacent landowners. The *Consultant* shall carry out Principal Inspections of the bridges in accordance with Highways England's suite of standards contained in the Design Manual for Roads and Bridges (DMRB) and produce an inspection report for each bridge.

The *Client* has included 25 bridges in the Scope of service for 2021/22, and at its sole discretion may add a similar amount of bridges through Compensation Events, for inspection in the financial year 2022/23. The addition of bridges for the 2022/23 financial year is dependent on a number of factors, including but not limited to: operational requirements, budget, and *Consultant* performance. Nothing in this contract or Scope prevents bridge inspections from being procured through an alternative route in the financial year 2022/23, at the discretion of the *Client.*

The bridges included within the Scope for 2021/22 are:

[redacted]

1.1. Objective

The objective is to ensure that bridges within the [redacted] are inspected and maintained to an acceptable standard. The Principal Inspections shall determine the current condition of the bridges and their associated elements in terms of safety and serviceability for operational requirements. The inspection report for each bridge will also provide the *Client* with evidence for future investment and spend, as well as determining the future maintenance programme.

1.1.1. Project Scope

For each bridge, the *Consultant* shall;

- Review existing (available) Bridge Inspection reports and make recommendations for investigations to address compliance issues and deficiencies in asset information.
- Carry out site investigations/inspections identified to address deficiencies in information, & concerns.
- Carry out a Principal Inspection
- Check compliance with current standards and record any non-compliance.
- Produce a detailed inspection report for each asset.
- Ensure all information is provided to the *Client* in a consistent electronic format.

1.2. Outcome Specification

1.2.1. Preparation for the Principal Inspection

The *service* required from the *Consultant* in advance of each Principal Inspection includes:

1. Review the previous reports and recommendations.
2. Produce a risk assessment and a method statement and submit them to the *Client,* at least 3 weeks before the Inspection, for their acceptance.
3. Work with the *Client* to arrange access to sites. Where the *Client* does not have ownership details for a privately-owned bridge, the *Client* will engage their estate team to identify the owner and facilitate the access.
4. 21 days prior to undertaking any Principal Inspection the *Consultant* shall notify the *Service Manager* of the proposed inspection date and obtain their consent for the performance of the inspection. Note:
   - Where required, the *Client* will serve a Notice of Entry within the 21 day period.
5. For *Client* owned footbridges and vehicular bridges carrying a public right of way, details of the bridge parapets shall be obtained prior to visiting the site to facilitate the assessment of the ability of the parapet to meet the British Standard requirements.

1.2.2. Principal Inspection

For each bridge the *Consultant* shall carry out the following service;

a. Conduct a Principal Inspection, testing and assessment to determine the current condition grade, in accordance with Highways England's suite of standards contained in the Design Manual for Roads and Bridges (DMRB) and any applicable Interim Advice Notes (IANs).

b. Check compliance with current standards and record any non-compliance.

c. Inspect all accessible parts of the asset from touching distance as far as practicably achievable. The *Consultant* may use remote inspection methods or specialist access equipment (e.g. drones, boats) only when it is not possible to safely undertake arms length inspection without excessive cost and risk. Where this is appropriate, for instance to inspect less accessible underside spans over a watercourse, the *Consultant* shall highlight this to the *Client* for their acceptance.

d. Where the *Client* has provided a structural assessment for the bridge, the *Consultant* shall visually reassess it on site to confirm whether it remains valid.

e. Identify any significant change (e.g. works carried out or deterioration) since the last Principal Inspection.

f. Obtain a photographic record showing the general condition of the bridge and its approaches, detailed photographs of significant defects and photographs showing the condition of each element.

g. Take measurements to either:

- Verify the input to the previous assessment of the bridge, or,
- Facilitate assessment or re-assessment.

h. Record any publicly or privately-owned service that may be observed on to the bridge or at the approaches.

i. Notify the *Client* immediately of any urgent safety related defects.

1.2.3. Inspection Report

Following each Principal Inspection the *Consultant* shall produce an inspection report for the bridge, including the following information and meeting the following requirements:

a) A review of the completeness and accuracy of the previous assessments, and provide a statement confirming their accuracy. Confirm that a competent assessment has been previously carried out, that there are no changes in the relevant legislation to invalidate the previous assessment, and note any previous assumptions made.

b) Review the calculation of the loading capacity provided in the previous structural assessment of the bridges. Confirm that the calculation has been completed in accordance with the relevant standards, and remains valid based on the current inspection.

c) Calculation of the loading capacity of the bridge for wheeled vehicles (single and multiple); *Client* tracked plant in accordance with the tracked plant specification; pedestrians and equestrians as appropriate, where no previous calculation of the loading capacity has been provided,

d) A summary of the current structural condition of the bridge.

e) Notes of any significant change (e.g. works carried out or deterioration) since the last Principal Inspection

f) A record of any defects found during the Principal Inspection.

g) For all defects, illustrate their location, severity, extent, relevance to the integrity and stability of the structure, with detailed descriptions along with photographs, and where appropriate, sketches to clearly identify their location.

h) A recommendation of any further testing, inspections or (re)assessment required. This should include any recommendations required to confirm the loading capacity of the structure, or to further investigate the defects that have been observed.

i) A risk-based rehabilitation plan for each bridge to bring it into target condition, describing the likelihood of an asset's failure, in terms of severity and extent.

j) Evaluation of the repair options for each defect, including estimated costs, timescales and priorities of each option, with recommendations for the optimum solution.

k) A minimum of 3 clearly labelled photographs: one of each side elevation and one of the bridge decks.

l) Description of any testing that was undertaken, details of the information collected and an interpretation of the information.

m) Identification of the need for any additional specific inspections, investigations and/or monitoring.

n) Identification of visible elements or regions that have not been inspected in accordance with subsection 3.12 of the Design Manual for Roads and Bridges Volume 3 Highways Structures: Inspection and Maintenance.

o) Clear differentiation between elements that are not applicable to the specific structure and elements which have not been inspected, through the use of different codes.

p) Identification of the methods used to undertake the inspection of each element.

q) A record of any public or privately-owned services on the bridge or approaches.

r) Any additional information the *Consultant* deems relevant to the bridge inspection.

s) A recommended date for the next Principal Inspection using a 'Risk-Based approach' as agreed with the *Client*. The *Client's* standard re-inspection period for Principal inspections is in accordance with the *Client's* local policy, which is 12 years for non-public highway structures, and 6 years for public highways; unless there is reason to reduce this.

An example of an acceptable format and level of detail for the report is provided in Appendix A, for the *Consultant's* reference. The *Consultant* shall present the inspection report in the following format and include (as a minimum) the following elements:

- Executive Summary;
- Description of Bridge Location including a 'General' and a 'Detailed' Location Plan;
- Brief Description of the Structure including a 'Form of Construction' sketch, if previous drawings are not available for annotation;
- Details of the recent maintenance history of the bridge – where this information has been supplied by the *Client* or is obvious from the inspection;
- Inspection Details, i.e. names of inspecting engineers, date of inspection, weather conditions and any special access measures.
- Inspection findings, including the summary of defects observed.
- Testing/ Test Results – where applicable, including previous testing results (more info is provided in Appendix A)
- Assessment Summary
- Discussion on the findings including recommendations for outline maintenance work to keep the bridge compliant and functional, together with indicative costs and a timescale for performance
- Recommendations including a suggested date for the next Principal Inspection.
- Appendices – including
    - ❖ Annotated inspection photographs;
    - ❖ Site notes;

- [redacted];
- Approval in Principle and Assessment Calculations – where applicable;
- PSRA Form.

2. Outcomes required

The *Consultant* is to carry out a Principal Inspection of each bridge within the Scope.

After each Principal Inspection, the *Consultant* is to provide the *Client* with a written summary of the key findings and initial condition grading for the inspected bridge, within one week.

Within four weeks of each Principal Inspection, the *Consultant* shall provide the *Client* with a draft summary inspection report. The *Client* shall review the report and make comments where relevant, before accepting the report in writing.

Once the inspection report is accepted by the *Client*, the *Consultant* shall provide the *Client* with the final inspection report within two weeks, having discussed and addressed all comments with the *Client.*

The inspection report shall be provided in Microsoft Word, and PDF format.

The *Consultant* must upload the inspection report to Asite or other SharePoint facilities for *Client* acceptance. Once the report is uploaded, the *Consultant* must notify the *Client* verbally and in writing within 24 hours.

In addition, the *Consultant* shall provide the *Client* with a digital storage device containing the reports for each bridge, once all the inspection reports for 2021/22 are complete.

2.1. Progress Meetings

The *Consultant* shall attend regular progress meetings with the *Client* and Service Manager, to ensure regular communication between the parties.

2.2. Programme

The *Consultant* shall issue a programme on a monthly basis with a narrative, explaining the assumptions underlying the updated programme, for any changes to key resources, sequencing restraints, critical path, risks, exclusions, exceptions, and execution strategy.

3. Constraints on how the *Consultant* provides the Services

a) The *Consultant* shall ensure that appropriate use is made of existing data to avoid duplicating work already undertaken.

b) Working hours for the *Consultant* providing the services shall be in accordance with this framework.

c) Inspections shall only be undertaken during weekdays.

d) Inspection teams shall comprise at least two people. Lone working is not permitted.

e) Some sites may have restricted access and require advance notice for visits. In such cases the *Client* will contact the landowner, and the *Consultant* shall arrange access to sites with the help of the *Client*.

f) Before planning any Bridge inspections, the *Consultant* shall contact the *Client* and relevant field teams to best plan inspections around water levels.

g) The *Consultant* may use any safe means to inspect bridge elements which are difficult or dangerous to access, such as obscured parts of the structure and/or confined spaces, to eliminate any potential safety hazard. Risk Assessments and Method Statements (RAMS) should be produced and accepted by the *Consultant's* safety officer prior to starting on site. The *Consultant's* RAMS shall be issued to the *Client*'s Principal Designer for review and acceptance a minimum of two weeks before the inspection.

h) The *Consultant* shall consider all necessary welfare arrangements and record these in the RAMS.

i) Any equipment used to carry out the inspection must be suitable for its intended use. The Principal Inspection reports must clearly identify the method and instrument used to inspect each element and detail the relevant safety hazards eliminated for each element.

j) Prior to undertaking a Principal Inspection, the *Consultant* must review all of the available structure records to familiarise themselves with the characteristics of the structure. In addition, they shall be aware of:

- Any potential hazards
- The condition at the time of the last inspection
- Any worsening defects over time
- Any significant maintenance/modifications since the last inspection

k) For *Client* owned bridges, consent may be withheld if other works are proposed for the bridge on the date in question

4. Exclusions

a) None

5. Specifications or standards to be used

a) Design Manual for roads and bridges Volume 3 Highways Structures: Inspection and Maintenance;

http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol3/section1/bd6317.pdf

Note: Highways England is currently in the process of updating and replacing all the DMRB documents and IANs. Any reference to a standard shall be deemed to refer to its successor standard once published by Highways England.

6. Specific Project Requirements

Not used.

7. Services and other things provided by the *Client*

At the commencement of contract, the *Client* will supply the following information:

a) A list of the bridges included in the package together with their Ordnance Survey Grid References;

b) Location plan

c) The previous Principal Bridge Inspection report – where available;

d) The previous PSRA form – where available;

e) The previous structural assessment – where available;

f) A set of the available fabrication drawings – where applicable;

g) A schedule of names and contact numbers for the *Client*'s asset managers responsible for each of the bridges;

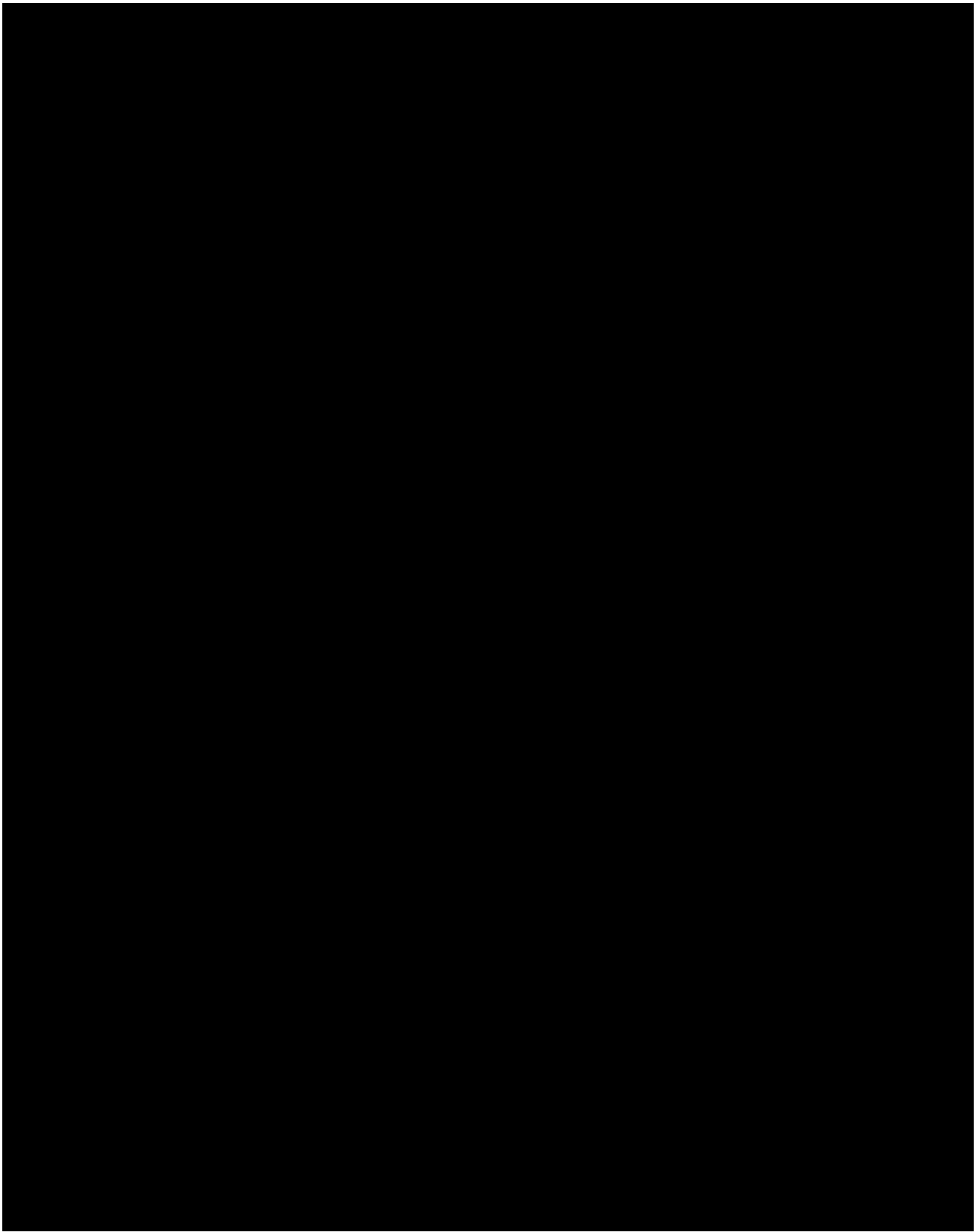
h) A list of the Bridge Owners/ landowners – where known;

i) A definition of when a structure shall be deemed to have reached the end of its 'useful life', i.e. so that the *Consultant* can make a judgement regarding the 'residual life expectancy' of the bridge;

j) A risk-based method for determining principal inspection intervals using the *Client* system.

k) A schedule of the *Client*'s tracked plant and wheeled vehicle together with suggested groupings for assessment purposes

Appendix A Existing Information



[redacted]

Appendix B Site Location

Please see excel document and zip file for further information.

[redacted]

Appendix C BIM Protocol – Production and Delivery Table

All *Client* issued information referenced within the Information Delivery Plan requires verifying by the *Consultant* unless it is referenced elsewhere within the *Scope.*

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You need google chrome for this link to work. Once the table is completed it should be printed for issue in the tender document, so that the correct baseline position can be seen by tenderers and priced.