



**National Asset Delivery
Technical Surveys and Testing**

Scope for

SWAD 2023 Tree Condition Surveys:

M4 SMART Motorway

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
0	0	Original version issued with tender	AB	27/03/23

TABLE OF CONTENTS

1	PURPOSE OF THE <i>SERVICES</i>.....	4
2	EXISTING INFORMATION	5
3	CONSTRAINTS ON HOW THE CONSULTANT PROVIDES THE <i>SERVICES</i> ...	6
4	REQUIREMENTS FOR THE PROGRAMME	8
5	SERVICES AND OTHER THINGS PROVIDED BY THE <i>CLIENT</i>	10
6	SPECIFICATION FOR THE <i>SERVICES</i>	10

LIST OF ANNEXES

Appendix 1 **Supplementary Constraints**

1 PURPOSE OF THE SERVICES

1.1 Project objectives

1.1.1 The principle objective of this project is to fulfil the requirements of GS801 Asset Delivery Asset Inspection Requirements, and assist National Highways in its legal obligations and to discharge duty of care as land owner under the Highways Act 1980 Section 41 and the Occupiers Liability Act 1984. This inspection will look specifically the risk posed by trees, to identify 'safety critical defects' and 'reactive defects' in the interest of maintaining a safe network.

1.1.2 National Highways shall procure formal tree inspections to reduce or remove the risk of harm or damage to users of the Strategic Road Network (SRN) or have the potential to affect pathways used by the public through or within plots (footpaths, cycleways, bridleways) and also inspect all trees within National Highways soft estate that are within falling distance of the estate boundary where they may present a hazard to third party land and/or property or users on other public and private roads and pathways, and further to inspect without trespass any trees on third party land where the latter pose a risk to SRN users.

1.1.3 The specification that applies to the *services* is included in Section 6. The survey and reporting should be undertaken in accordance with the 'Tree Condition Inspections / Surveys - Supply Chain Brief' for the 'SWAD 2023 Tree Condition Surveys - Motorways: M4 SMART Motorway'.

1.2 Scope of services

1.2.1 The *services* to be provided under this contract are:

- (1) Arboricultural surveys as specified the 'Tree Condition Inspections / Surveys - Supply Chain Brief' for the 'SWAD 2023 Tree Condition Surveys - Motorways: M4 SMART Motorway'.
- (2) The *Consultant* shall carry out formal tree inspections using recognised system of inspection and quantify the risk posed by tree defects that pose an unacceptable risk to significant assets on the SRN, to users of the SRN or from trees within National Highways Operational estate upon third party property.
- (3) The *Consultant* shall use qualified persons to undertake formal tree inspections in line with national guidance.
- (4) The *Consultant* shall provide staff, equipment, personal protective equipment and appropriate vehicles to undertake work along the SRN.
- (5) The service provider and its persons shall not enter third party land to undertake tree surveys without prior agreement with the landowner.
- (6) Within 2 months of National Highways accepting the final deliverables, the *Consultant* must send formal notification letters on behalf of National Highways to all third parties with trees / tree groups with recommended actions. Each third party landowner and occupier identified must be sent a

letter with Reply Slip and the 'Tree Survey Sheets' for trees / tree groups being their responsibility. National Highways Senior Environment Specialist will provide templates for the letter and Reply Slip. The *Consultant* must confirm back to Highways Environmental Manager (Asset) and Senior Environment Specialist when this action has been completed and provide PDF file(s) of issued letters.

1.3 Deliverables

1.3.1 The *Consultant* is required to produce the following deliverables, as detailed in the 'Tree Condition Inspections / Surveys - Supply Chain Brief' for the 'SWAD 2023 Tree Condition Surveys - Motorways: M4 SMART Motorway' (The Brief):

- (1) A report as specified in the Brief, adopting the title "National Highways SWAD 2023 Tree Condition Surveys - M4 SMART Motorway". Contents of the report must include but is not limited to a brief introduction, scope, methodology, survey limitations, a brief summary of the survey findings, survey results in the form of summary tables, and overview plans of the route showing tree locations referenced to the summary tables. A 'Tree Survey Sheet' must be provided for each tree / tree group on third party land or unregistered land. Appendices must include overview plans of the route showing tree locations referenced to the summary tables, and 'Tree Survey Sheets' (for the latter, refer to the 'Supply Chain Brief' for content). The summary tables, overview plans and 'Tree Survey Sheets' must separate carriageway direction and be presented in the direction of travel, adopting the convention that the first direction reported is implicit in the survey title.
- (2) An unlocked Excel data spreadsheet of the summary tables presented in the report should be provided, so National Highways can develop the necessary follow up actions.
- (3) A CSV file or other agreed file format should be provided for each route to enable pertinent information to be imported into the National Highways GIS system.
- (4) Within 2 months of National Highways accepting the survey deliverables, the *Consultant* must confirm back to National Highways Environmental Manager (Asset) and Senior Environment Specialist that all third parties have been notified of trees / tree groups in their responsibility identified to have recommended actions and provide PDF file(s) of issued letters.

All information obtained and issued in delivery of these surveys will become the property of National Highways and may be stored or used by National Highways or its agents for the purpose of managing the Strategic Road Network.

2 EXISTING INFORMATION

2.1.1 This inspection / survey requires knowledge of the National Highways operational estate. The extent of the estate is being continuously revised following delivery of improvement schemes, land transactions or receipt of new information, and should therefore be taken from the latest base layer of EnvIS (National Highways

Environmental Information System). The soft estate layer and road marker post layer are provided with this tender package as a GIS layer file specific to the route.

- 2.1.2 The National Highways GeoStore website enables the *Consultant* to request and download OS base mapping to assist with reporting for this project, subject to registration and approval on application for specific data. Details will be provided to the *Consultant*.
- 2.1.3 The National Highways 'South West Network Induction' is available to support the *Consultant* with their staff induction.

3 CONSTRAINTS ON HOW THE CONSULTANT PROVIDES THE SERVICES

3.1 General

- 3.1.1 The *Consultant* Provides the Services in such manner as to minimise the risk of damage or disturbance to or destruction of third party property.
- 3.1.2 The *Consultant* complies with the constraints and meets with the requirements outlined in Appendix 1.
- 3.1.3 The *Consultant* submits information detailing how the *Consultant* will provide the Services to the *Client* prior to the services commencing. This information will include any lifting plans, risk assessments, method statements, the *Consultant's* staff training information and any other relevant Health and Safety requirements.

3.2 Working hours & site specific constraints

- 3.2.1 The *Consultant's* working hours for site works shall be restricted to daylight hours with good visibility unless agreed otherwise with the National Highways Technical Surveys Manager.
- 3.2.2 The *Consultant* is responsible to ensure that all field staff are appropriately inducted by a competent person on all aspects of activities required by the brief. The National Highways 'South West Network Induction' is available to support the *Consultant* with their staff induction. Evidence of staff induction is required
- 3.2.3 All field staff must have a MAPPA Motorway Pass if not in possession of a valid National Highways Passport. Application details will be provided for MAPPA Pass if required
- 3.2.4 All field staff must have SMART Motorway Induction training and a Permit to Access, details will be provided.
- 3.2.5 The *Consultant* must have in place Safe Systems of Work, Risk Assessments and a Method Statement that are specific to the activities proposed. These should be provided to the National Highways Technical Surveys Manager for review prior to any site activity. Refer to 'The Brief' for contact details.

- 3.2.6 The *Consultant* must place and be competent to place 'Surveying' signs on the network where field staff are visible to road users for periods exceeding 15 minutes. Such signs are information signs, not instruction signs, therefore the persons placing them do not require Chapter 8 sector scheme certification. Signs must be placed 1.2m away from traffic and facing oncoming traffic.
- 3.2.7 If stopping or parking in the hard shoulder, verge or a maintenance hard standing space, the survey vehicle must be marked up appropriately for Highways Maintenance (Chapter 8 compliant). If an unmarked private vehicle is used, it may only be used in the same way as any other road user (i.e. no stopping or parking on the verge, no parking within maintenance hard standings).
- 3.2.8 Some stretches of the SRN may require temporary traffic management to safely inspect / survey the trees. These road lengths will need to be identified by the *Consultant* early on and details provided to the National Highways Technical Surveys Manager at SWSurveys@nationalhighways.co.uk
- 3.2.9 Traffic management and road space booking will be arranged by the National Highways Technical Surveys Manager and provided by National Highways supply chain at no cost to the *Consultant*. Some 4 to 6 weeks is usually required to make the necessary arrangements for traffic management and it is subject to road space being available. The provider of traffic management would become the Lead Contractor for these elements of the survey and their safety requirements will need to be complied with.
- 3.2.10 It is a requirement that all persons whilst working on the National Highways network wear Class 3 high visibility long sleeved yellow jackets and trousers, white helmet, eye protection, gloves and protective footwear at all times. Other personal protective equipment identified in the supply chain Risk Assessment must also be worn as and when appropriate.
- 3.2.11 It is prohibited to cross any live National Highways carriageway on foot, including slip lanes up to the node point where the National Highways network switches to County road. Crossing a live County road is not prohibited.
- 3.2.12 The Regional Operations Centre must be advised in advance of accessing the network, then at arrival on site and finally on departure from site.
- 3.2.13 No access should be made onto private land without prior consent of the landowner / tenant / occupier.

3.3 Health, Safety and Environment & Risk Management

Health and Safety requirements

- 3.3.1 In Providing the Services the *Consultant* meets the requirements of Annex 2 of the supplementary constraints relation to health and safety duties. The *Consultant* also adheres to the requirements in Section 3.2 above.

- 3.3.2 When implemented, the *Consultant* shall comply with the requirements of National Highways' safety passport scheme and ensure that all of his employees, and any of his subcontractors, are registered in accordance with the implementation of the scheme.
- 3.3.3 Not used.
- 3.3.4 Before commencing the construction phase of the *services*, the *Consultant* confirms to the *Client* that adequate welfare facilities are in place. Where the facilities detailed in section 5 are not deemed adequate, the *Consultant* provides all necessary facilities to Provide the *Services* and to comply with the minimum requirements set out in HSE guidance document L153.

Environmental requirements

- 3.3.5 In Providing the *Services* the *Consultant* meets the requirements of Annex 2 of the supplementary constraints in relation to environmental duties.

Risk Management

- 3.3.6 The *Consultant* identifies, manages and mitigates risks in accordance with the principles of ISO31000.
- 3.3.7 The *Consultant* submits a risk register, which captures all risks associated with the delivery of the *services* including those identified by the *Client*, with his tender and maintains it for the contract period.

4 REQUIREMENTS FOR THE PROGRAMME

- 4.1.1 The *Consultant* submits programme to the *Client* with his tender.
- 4.1.2 The *Consultant* Provides the *Services* taking into account the following programme constraints:
- (i) the *starting date* – 19th June 2023. (*Tender award proposed 2nd June 2023*).
 - (ii) *Start-up meeting* – to be held within 2 weeks of the start date. Attendees to include the *Consultant* project manager and if possible the proposed surveyors, with National Highways Environmental Manager (Asset) and Senior Environment Specialist / Soft Estate Officer.
 - (iii) *completion date* – final report and survey deliverables to be complete and submitted by no later than 30th November 2023.
 - (iv) reporting and review period - draft report and survey deliverables to National Highways project team within three weeks of completing field survey of each route and as a final report within 2 weeks of receiving National Highways

comments on the draft; final report and deliverables no later than 30th November 2023 as in (iii) above.

- (v) The services and other things provided by *Client* (see Section 5)
- (vi) The *Consultant* is responsible to ensure that all field staff are appropriately inducted by a competent person on all aspects of activities required by the brief. The National Highways 'South West Network Induction' is available to support the *Consultant* with their induction. Evidence of staff induction is required
- (vii) All field staff must have a MAPPA Motorway Pass if not in possession of a valid National Highways Passport. Application details will be provided for MAPPA Pass if required.
- (viii) All field staff must have SMART Motorway Induction training and a Permit to Access, details will be provided.
- (ix) The *Consultant* must have in place Safe Systems of Work, Risk Assessments and a Method Statement that are specific to the activities proposed. These should be provided to the National Highways Technical Surveys Manager for review prior to any site activity.
- (x) Safety Critical Defects – the *Consultant* must provide details immediately to the Regional Operations Centre (ROC), and the ROC log number advised to the National Highways Environmental Manager (Asset) and Senior Environment Specialist at the soonest opportunity.
- (xi) High Priority Reactive Defects – the *Consultant* must provide details weekly to the National Highways Service Delivery Manager, copied to the National Highways Environmental Manager (Asset) and Senior Environment Specialist.
- (xii) As the survey progresses the *Consultant* must inform the National Highways Environmental Manager (Asset) and Senior Environment Specialist fortnightly of percentage completion along the route.
- (xiii) The *Consultant* must provide a monthly summary of all defects to the Highways Environmental Manager (Asset) and Senior Environment Specialist, and then a final summary on completing the survey of the route.
- (xiv) The *Consultant* must prepare a report for the route, adopting the title "National Highways SWAD 2023 Tree Condition Surveys - M4 SMART Motorway". This must be submitted in draft with other survey deliverables to the National Highways Environmental Manager (Asset) and Senior Environment Specialist within three weeks of completing the field survey and as final report and survey deliverables within 2 weeks of receiving National Highways comments on the draft submission. The intention is to meet the date no later than provided in paragraph (iii) above.
- (xv) One report review meeting at the National Highways Ash House office in Exeter (otherwise via Teams) should be programmed prior to issue of the final report. This would require attendance by the *Consultant* project

manager, report author(s) and National Highways Environmental Manager (Asset) and Senior Environment Specialist.

- (xvi) Within 2 months of National Highways accepting the survey deliverables, the *Consultant* must confirm back to National Highways project team that all third parties have been notified of trees / tree groups in their responsibility identified to have recommended actions, and provide PDF file(s) of issued letters.
- 4.1.3 The programme should be in the form of an activity and time related bar chart, produced as a result of a critical path analysis.
- 4.1.4 The programme should preferably be provided in either a PDF or MS Excel format and cover the full contract period including post site activities. Activities should be clearly defined and named and the programme should detail the following:
 - (i) dates and times associated with the project, including the *starting date*, *completion date* & *Consultant's* planned completion, and any other dates or times that will specifically impact the delivery of the project.
 - (ii) activities associated with delivering the project, to include start-up meeting, mobilisation period, field survey and reporting.
 - (iii) draft report submission;
 - (iv) draft report review period and report review meeting;
 - (v) final report, survey data and GIS file submission;
 - (vi) preparation and issue of notifications to third party tree owners, and confirmation of completion to National Highways project team by submission of pdf file(s) of issued letters.
- 4.1.5 The *Consultant* should provide details of the proposed resources (plant, labour, subcontractors etc.) expected to deliver each activity. This information can either be shown on the programme itself or provided in an associated resource statement included in the Proposal for Providing the Services.
- 4.1.6 The *Consultant* updates the programme every four weeks. The *Consultant* submits an updated programme to the *Client* upon request.

5 SERVICES AND OTHER THINGS PROVIDED BY THE CLIENT

- 5.1.1 The *Client* does not provide anything with respect to Traffic Management, unless requested by the *Consultant*. Refer paras 3.2.6 and 3.2.7.
- 5.1.2 The other things that will be provided by the *Client* are as follows:
 - (1) Refer to Section 2.
 - (2) Details for MAPPA Pass application.
 - (3) Details for SMART Motorway Induction and for Permit to Access application.
 - (4) Third party letter template and reply slip.

6 SPECIFICATION FOR THE SERVICES

6.1.1 The *Consultant* shall Provide the Services in accordance with:

- The attached 'Tree Condition Inspections / Surveys - Supply Chain Brief' for the 'SWAD 2023 Tree Condition Surveys - Motorways: M4 SMART Motorway' (The Brief).
- Visual Tree Assessment.
- Quantified Tree Risk Assessment, www.QTRA.co.uk
- Where defects pose a Risk of Harm
 - ≥1:1000 = Safety Critical
 - >1:10,000 = High
 - > 1:50,000 = Medium
 - >1:100,000 = Low
 - <1:1M = Monitor / Re-survey