

**National Asset Delivery
Technical Surveys and Testing**

**Works Information for 570122
M4 J19-18 EB MP 181.1 – 177.8 RS
Pavement Survey**

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
0	0	Original version issued with tender	ET	30/03/20

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LIST OF ANNEXES

Appendix 1 Supplementary Constraints

1 DESCRIPTION OF THE WORKS

1.1 Project objectives

- 1.1.1 The principle objective of this project is to determine the nature and depth of pavement construction thickness, defects, condition and to confirm the presence of coal TAR/PAH in existing pavement.
- 1.1.2 The specification that applies to the *works* is included in Section 6

1.2 Scope of works

- 1.2.1 The *works* to be provided under this contract are:
 - (1) 22 No. of 150mm Pavement Cores
 - (2) 3 No. of DCP tests and analysis
 - (3) 22 No. of PAK spray test on site to all cores
 - (4) Possible follow up PAH lab testing if any PAK test identifies a positive indication of TAR bound materials (requirement for PAH tests to be agreed by Highways England on receipt of the report)
 - (5) PDF colour-copy factual report.

1.3 Deliverables

- 1.3.1 The *Contractor* is required to produce the following deliverables:
 - (1) A factual report detailing findings of site and laboratory testing and analysis
 - (2) Detailed drawing/map and references (including Marker Posts and OSGRs) to position the actual locations of pavement sampling.

2 EXISTING INFORMATION

- 2.1.1 All relevant existing information including C2 STATS searches can be found within the Pre-Construction Information Pack (PCIP) document. Individual STATS plans provided as part of the handover documents.
- 2.1.2 The Drawings listed below apply to this contract. Refer to the site information for details of existing site conditions including ground conditions, limitation on access, position of existing structures etc. Proposed works requirements are as detailed in Section 6. The core location drawing is attached with PCIP.

Drawing Number	Title	Revision / Date
001	181 – M4 J19-18 EB MP 181.1 – 177.8 RS Defect & Treatment Plan	Rev A

3 CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS

3.1 General

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

3.2 Working hours & site specific constraints

- 3.2.1 Access to the site for undertaking works will not be possible without the provision of traffic management – This will be provided by the Employer under the Construction Works Framework.
- 3.2.2 Due to the requirement for Traffic Management (TM) and specialist access, it is envisaged that works will be restricted to night-time shifts. Temporary Traffic Management (TTM) shall not be implemented prior to the hour of 20:00 hrs nor removed later than 06:00 hrs. Late installation / early removal of Traffic Management or alteration to the length of closure may occur subject to the recorded on-site traffic flow. It is anticipated that in most cases, Traffic Management removal will commence at 04:00 hrs to allow sufficient time for removal.
- 3.2.3 Traffic Management layout to be confirmed by Construction Works Frameworks Contractor. Layout provided to be in accordance with Traffic Signs Manual (TSM) Chapter 8.
- 3.2.4 Any site and task-specific lighting shall be directed away from dense vegetation and shall be positioned such that it does not cause a hazard to on-coming road users.

3.3 Health, Safety and Environment & Risk Management

Health and Safety requirements

- 3.3.1 In Providing the Works the *Contractor* meets the requirements of Annex 2 of the supplementary constraints in relation to health and safety duties.
- 3.3.2 The *Contractor* shall comply with the requirements of Highways England's safety passport scheme and ensure that all of his employees, and any of his

subcontractor's, are registered in accordance with the implementation of the scheme. Details on the scheme can be found here:

<http://www.highwayssafetyhub.com/safety-passport.html>

- 3.3.3 For details of the CDM duty holders, refer to the Pre-Construction Information Pack (PCIP), which is issued as part of this package of work.
- 3.3.4 Before commencing the construction phase of the *works*, the *Contractor* confirms to the *Employer* that adequate welfare facilities are in place. Where the facilities detailed in section 5 are not deemed adequate, the *Contractor* provides all necessary facilities to Provide the Works and to comply with the minimum requirements set out in HSE guidance document L153.

Environmental requirements

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

Risk Management

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

4 REQUIREMENTS FOR THE PROGRAMME

- 4.1.1 The *Contractor* submits programme to the *Employer* with his tender.
- 4.1.2 The *Contractor* Provides the Works taking into account the following programme constraints:
- (i) the *starting date* and *completion date* and any post site works, reporting and review period
 - (ii) The services and other things provided by *Employer* (see Section 5)
- 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) The starting date, completion date & Contractor's planned completion
 - (ii) For each activity, the proposed resources (plant & labour) expected to deliver each activity should be shown on the programme
 - (iii) Review periods for any reporting requirements
 - (iv) Key dates for the Employer to provide 'services and other things'
 - (v) Key dates for co-ordination with Others
 - (vi) Dates and times associated with the project, including the *starting date*, *completion date* & *Contractor's* planned completion, and any other dates or times that will specifically impact the delivery of the project
 - (vii) Activities associated with delivering the project
- 4.1.5 The *Contractor* updates the programme every week. The *Contractor* submits an updated programme to the *Employer* upon request.

5 SERVICES AND OTHER THINGS PROVIDED BY THE *EMPLOYER*

5.1.1 The following temporary traffic management will be provided by the *Employer under the Construction Works Framework* to allow the *Contractor* to Provide the Works:

- (1) It is assumed, based on site constraints/traffic flow data that off-peak lane closures will be the preferred traffic management for these works. It shall be assumed that this will consist of:

- M4 EB Lane 1 Closure
- M4 EB Lane 2 Closure
- M4 EB Lane 3 Closure

These closures will be undertaken separately to ensure the carriageway remains open with one lane running. Due to TM restraints, work must be completed in two shifts.

1.1.2 Other things that will be provided by the *Employer* are as follows:

- (1) Welfare Facilities (to be provided by the Principal Contractor).

6 SPECIFICATION FOR THE WORKS

6.1.1 The *Contractor* shall undertake the works in accordance with:

- (1) Core Logs are to be extracted by core cutting method in accordance with BS EN 12697-27:2001 and BS EN 12504-1:2009 and to be documented in accordance with the requirements of the DMRB HD 29/08. To be taken to full depth of bituminous pavement construction in accordance with Core Location Drawing and Core Schedule Plan.
- (2) Visual examination and logging of the core shall be carried out in accordance with HD29/08.
- (3) All core logs to be referenced to GPS grid co-ordinates and also referenced by Marker Post within Core Log Report.
- (4) Each core log shall contain a clear colour photograph of the core with the layer thickness, type of material, results of the PAK testing and description of the condition of all layers recorded in an adjacent table. All bound core samples to be cleaned with a damp brush or cloth prior to logging and photographing.
- (5) Changes in core layers and cracks shall be clearly marked with a white mark (e.g. white pen) across the interface of each different layers.
- (6) 3 No. Dynamic Cone Penetrometer (DCP) test/analysis to be undertaken at the core locations identified within the Core Schedule. The Californian Bearing Ratio (CBR) shall be ascertained/calculated and plots/results shall be shown within the report.
- (7) Reinstatement – All excess water to be removed with a sponge. Hole to be fully coated with a cold applied HAPAS approved bituminous sealant immediately prior to reinstatement. The holes shall then be filled with a HAPAS approved 6mm permanent bituminous repair material, added in 50mm layers. Each layer shall be compacted with hydraulic compactor for at least 30 seconds to ensure adequate compaction before adding the next layer. The final layer will be finished

flush with the surrounding surface. All reinstatement to be completed within the same works shift as extraction.

- (8) Each core/core layer to be subject to PAH and Phenol analysis if required. The cores to be subject to further analysis shall be agreed once the report has been received by Highways England.
- (9) PDF colour-copy factual report required within two weeks of agreed completion on site to detail the above results.
- (10) Each core sample shall be stored by the Contractor until approval has been sought from Highways England to confirm its disposal.

FOR INFORMATION ONLY