National Asset Delivery

Technical Surveys and Testing

Works Information for

570122 A38 Liskeard Entry And Exit Slip EB Pavement Coring and Trial Pit Survey

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
0	0	Original version issued with tender	ET	07/07/21

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LIST OF ANNEXES

1 DESCRIPTION OF THE WORKS

1.1 Project objectives

1.1.1 The principle objective of this project is to core the pavement 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 Specific areas where trial pits are proposed to be excavated – have cracking which is believed to have reflected from a failed underground utility trench crossing the carriageway. However; this cannot be confirmed at this stage and coring will not be a safe option to do such investigation.

Hence; trial pits will be able to confirm the following:

(i) Depth if the trench and thickness of the individual layers below the carriageway

(ii) The type of reinstatement material used

(iii) Whether the reinstatement material was properly compacted or not before the carriageway was resurfaced

1.1.3 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) 14 No. of 150mm pavement cores

(2) 14 No. PAK spray test on site to all cores

(3) 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)

(4) 2 No. hand dug trial pits 1.1m longitudinally by 0.6m transversely

(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 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 document (PCI). 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 the PCI.

Drawing Number	Title	Revision / Date
-	669 Location Plan	-
-	669 Entry Slip Cores	-
-	669 Exit Slip Cores	-

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.

3.2.2 Due to the requirement for traffic management and specialist access it is envisaged that works will be restricted to night-time shifts. Temporary traffic management is to be provided by the Employer. Traffic management shall not be implemented prior to the hour of 20:00 nor removed later than 06:00hrs. 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 04:00hrs to allow sufficient time for removal.

3.2.3 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 When implemented, 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 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)

(iii) Phasing and availability of TM

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

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* to allow the *Contractor* to Provide the Works:

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

5.1.2 The 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

The *Contractor* shall undertake the following works:

6.1.1 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 CS 229. To be taken to full depth of bituminous pavement construction in accordance with Core Location Drawings and Core Schedule.

6.1.2 Visual examination and logging of the core shall be carried out in accordance with CS 229.

6.1.3 All core logs to be referenced to GPS grid coordinates within core log report.

6.1.4 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 the layers recorded in an adjacent table. All bound core samples to be cleaned with a damp brush or cloth prior to logging and photographing.

6.1.5 Changes in core layers and cracks shall be clearly marked with a white mark (e.g a white pen) across the interface of each of the different layers.

6.1.6 0 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.

6.1.7 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.

6.1.8 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.

6.1.9 PDF colour-copy factual report required within two weeks of agreed completion on site to detail the above results.

6.1.10 Each core sample shall be stored by the Contractor until approval has been sought from Highways England to confirm its disposal.

6.1.11 Trial pits are to be hand dug in accordance with Volume 5, Section 3, Chapter 6 of the MCHW.

6.1.12 Observation pits and trenches shall be excavated by hand and shall be adequately supported at all times to enable personnel to enter and work safely and to permit in situ examination, soil sampling and testing as required.

6.1.13 The Contractor shall keep all pits and trenches free of surface water run-off. Groundwater shall be controlled by pumping from a sump to permit continuous work in so far as the rate of inflow of groundwater can be controlled by use of a 50mm outlet diameter pump and the excavation remains stable

6.1.14 The Contractor shall photograph and supply colour prints of all pits and trenches and their arisings. In addition to the requirements of clause 3.26 photographs shall clearly show details of the ground conditions in the pit and trench with any support in place and shall contain a graduated scale. Unless otherwise required in Schedule 1.11, artificial lighting appropriate to the colour balance of the film shall be used where necessary. Photographs will generally be required at the rate of three for every pit or as directed by the Engineer.

6.1.15 Backfilling of the pits and trenches shall be carried out in accordance with clause 3.9 with material replaced at similar depth as encountered. In open land any surplus shall be heaped proud over the pit site. In paved areas reinstatement shall be as specified in Schedule 2.