

National Asset Delivery Technical Surveys and Testing

Works Information for 570122 A36 Castle Roundabout Trial Hole and Asbestos Refurbishment Survey

CONTENTS AMENDMENT SHEET

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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 undertake trial holes and DCP Testing to determine the nature and depth of pavement construction, defects, condition and to confirm the presence of coal tar in existing pavement above structures. The works may also include an asbestos refurbishment survey at instances where the existing waterproofing material is encountered in order to determine presence of Asbestos Containing Materials (ACM).

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) 14 No. Trial Holes at the A36 Castle Roundabout to identify depth of construction and extents of defects.
- (2) 3 No. DCP Tests
- (3) Each trial hole to be PAK tested. 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) Asbestos Refurbishment Survey – Due to the risk of encountering the unidentified waterproofing material during the trial hole works. Existing unidentified waterproofing at Hulse Road Subways (HE Key 9533) and Castle Road Subway (HE Key 9528) is presumed to contain asbestos.
- (5) Trial Hole works are to take place in conjunction with other survey works being undertaken by others, with access to the excavated elements required by others as necessary.
- (6) PDF colour-copy factual report

1.3 Deliverables

1.3.1 The *Contractor* is required to produce the following deliverables:

- A factual report detailing findings of site and laboratory testing and analysis.
- 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 document (PCI). Individual Statutory Undertakers plans are 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 work requirements are as detailed in Section 6.

The Trial Hole Schedule is attached is attached with the PCI.

Drawing Number	Title	Revision / Date
HE570122-KIER-VGN-A36_63.7_63.8_Z-DR-CH-0000_01 - Defect Plan	A36 Castle Roundabout Defect Plan	C1 – 03/2021

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.
- 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. 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 04:00 hrs 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.
- 3.3.3 For details of 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)
- 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:
- the *starting date*, *completion date* & *Contractor's* planned completion
 - for each activity, the proposed resources (plant & labour) expected to deliver each activity should be shown on the programme
 - review periods for any reporting requirements
 - key dates for the *Employer* to provide 'services and other things'
 - 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) Traffic Management to be provided with survey works anticipated to be carried out under convoy working and lane closures where possible, or full carriageway closure of Castle Roundabout with Local Authority diversion routes being utilised. Layout provided to be in accordance with TSM Chapter 8. For tender purposes, please assume convoy working and lane closures.

5.1.2 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:

- (i) Indicative locations of trial holes are shown on the drawings listed in Section 2. Locations are to be agreed prior to works and will again be agreed and confirmed on site.
- (ii) A CAT scan shall be carried out to detect below ground services prior to digging.
- (iii) All trial holes must be excavated by suitably trained and competent persons (Category B) in accordance with the Control of Asbestos Regulations (CAR) 2012.
- (iv) Trial holes to be taken to full depth of bituminous pavement construction in accordance with Core Location Drawings and Core Schedule.
- (v) Visual examination and logging of the trial hole shall be carried out in accordance with CS 229.
- (vi) All trial holes to be referenced to GPS grid coordinates and also referenced by Marker Post within core log report.
- (vii) Each trial hole log shall contain a clear colour photograph of the trial hole (with measuring tape depicting depth) 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 samples to be cleaned with a damp brush or cloth prior to logging and photographing.
- (viii) Changes in trial hole 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.
- (ix) Dynamic Cone Penetrometer (DCP) test/analysis to be undertaken at the Trial Hole location identified within the Core Schedule. If the location of the trial hole, once exposed, is above a structure, no DCP is to be carried out.

The Californian Bearing Ratio (CBR) shall be ascertained/calculated and plots/results shall be shown within the report.
- (x) Each trial hole 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.
- (xi) Care must be taken to not cause damage to the structure including the waterproofing layer. Any accidental damage shall be notified to the relevant highway authority. Repairs of any accidental damage

shall be the responsibility of the Contractor and shall be agreed with Highways England.

- (xii) Where the waterproofing layer is encountered, an Asbestos Refurbishment Survey is to be carried out. The survey shall comply with CAR 2012 and GG 105.
- (xiii) The thickness of the existing waterproofing membrane is to be recorded as part of the refurbishment survey.
- (xiv) An asbestos refurbishment survey report for each separate structure shall be issued to the HE. The report will be used to update the current AAP's.
- (xv) Any damage to waterproofing to be repaired with a suitable and approved system that is compatible with the system already present. Waterproofing repair material to be applied in accordance with the manufacturer's instructions, ensuring that the minimum required overlap with the existing system is achieved in accordance with those instructions.
- (xvi) 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.
- (xvii) For Points P1-P4 – Contractor to record locations of the subway box culvert corners and provide the coordinates for the purpose of aligning the structure in relation to the surface defects.
- (xviii) PDF colour-copy factual report required within two weeks of agreed completion on site to detail the above results.
- (xix) Each trial hole sample shall be stored by the Contractor until approval has been sought to confirm its disposal.