

# **National Asset Delivery Technical Surveys and Testing**

## **A5 safety Improvement Schemes Surveys – Topographical & Utility**

### **Works Information**

**CONTENTS AMENDMENT SHEET**

<b>Amend. No.</b>	<b>Revision No.</b>	<b>Amendments</b>	<b>Initials</b>	<b>Date</b>
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## TABLE OF CONTENTS

<b>1</b>	<b>Description of the works .....</b>	<b>4</b>
<b>2</b>	<b>Exisiting Information .....Error! Bookmark not defined.</b>	
<b>3</b>	<b>Constraints on how the Contractor Provides the Works .....</b>	<b>7</b>
<b>4</b>	<b>Requirements for the programme .....</b>	<b>9</b>
<b>5</b>	<b>Services and other things provided by the <i>Employer</i>.....</b>	<b>10</b>
<b>6</b>	<b>Specification for the works .....</b>	<b>11</b>

## LIST OF ANNEXES

**Appendix 1 C2 Returns**

**Appendix 2 Survey Drawings**

**Appendix 3 Health and Safety Documents**

**Asbestos Action Plans**

**Pre-construction information**

**Designers Risk Assessment**

**HE ACM Checklist**

**Appendix 4 Risk & Opportunity Register**

**Appendix 5 HE Environmental Scoping Proforma**

**Appendix 6 Traffic / AADT Data**

**Appendix 7 Preliminary Design Drawings (for information only)**

**Appendix 8 Supplementary Constraints**

## 1 DESCRIPTION OF THE WORKS

### 1.1 Project objectives

- 1.1.1 The principle objective of this project is to carry out a Topographical Survey, Vegetation Clearance, Ground Penetrating Radar & Trial Holes. Then subsequently provide associated reports & drawings.
- 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:

Category	Survey Description
Utility Survey	Buried utility survey to locate and verify underground utilities via scanning, GPR and trial holes in accordance with PAS 128:2014 Type A & B.
Topographical Survey	Full topographical survey to National AD Technical Surveys & Testing contract documentation.
Vegetation Clearance	Vegetation clearance to enable features to be accurately surveyed and to enable other contractors to carry out their activities.

### 1.3 Deliverables

- 1.3.1 The *Contractor* is required to produce the following deliverables:
- (1) An appropriate individual to attend pre-commencement site inspection & client meeting.
  - (2) Propose temporary traffic management required. Once agreed *Employer* will provide the temporary traffic management.
  - (3) The contractor is to provide plant, materials & labour to carry out vegetation clearance to enable features to be accurately surveyed. Additionally, the contractor is to liaise with the other contractor's and provide site clearance for access to carry out other surveys. Extent of clearance proposed by contractors is to be agreed with employer.
  - (4) Plant, materials & labour to carry out a Topographical & GPR surveys on site for the timings as stated in section 3 and specification as stated in section 6.
  - (5) CAD dwgs, MX data & reports as detailed in section 6.
  - (6) Reports as detailed in section 6.

## 2 EXISTING INFORMATION

2.1.1 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.

HE564883-HE-GEN-A5_ML-DE-CH-0000_01	Drg	Location Plan 1 (All locations)
HE564883-HE-VGN-A5_ML-DE-Z-0000_01	Drg	Newton Lane Technical Surveys
HE564883-HE-VGN-A5_ML-DE-Z-0000_02	Drg	Kilsby Crossroads, Kilsby Bends & Venture Caravans Technical Surveys 1 of 2
HE564883-HE-VGN-A5_ML-DE-Z-0000_03	Drg	Kilsby Crossroads, Kilsby Bends & Venture Caravans Technical Surveys 2 of 2
HE564883-HE-VGN-A5_ML-DE-Z-0000_04	Drg	Daventry Road Crossroads Technical Surveys
HE564883-HE-VGN-A5_ML-DE-Z-0000_05	Drg	Weedon Bec Technical Surveys 1 of 2
HE564883-HE-VGN-A5_ML-DE-Z-0000_06	Drg	Weedon Bec Technical Surveys 2 of 2
HE564883-HE-VGN-A5_ML-DE-Z-0000_07	Drg	Northampton Road Technical Surveys
HE564883-HE-VGN-A5_ML-DE-Z-0000_08	Drg	Grays Lane Pury Road Technical Surveys
HE564883-HE-VUT-A5_ML-DE-CH-2700_01	Drg	Newton Lane Statutory Undertakers
HE564883-HE-VUT-A5_ML-DE-CH-2700_02	Drg	Kilsby Statutory Undertakers 1 of 2
HE564883-HE-VUT-A5_ML-DE-CH-2700_03	Drg	Kilsby Statutory Undertakers 2 of 2
HE564883-HE-VUT-A5_ML-DE-CH-2700_04	Drg	Daventry Road Crossroads Statutory Undertakers
HE564883-HE-VUT-A5_ML-DE-CH-2700_05	Drg	Weedon Bec Statutory Undertakers 1 of 2
HE564883-HE-VUT-A5_ML-DE-CH-2700_06	Drg	Weedon Bec Statutory Undertakers 2 of 2
HE564883-HE-VUT-A5_ML-DE-CH-2700_07	Drg	Northampton Road Statutory Undertakers

HE564883-HE-VUT-A5_ML-DE-CH-2700 08	Drg	Grays Lane Pury Road Statutory Undertakers
HE564883-HE-VUT-A5_ML-DE-CH-2700 09	Drg	Statutory Undertakers Key and Notes

NOTE: Full C2 returns are attached to this document.

### **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 The *Contractor's* working hours for site works shall be determined but are expected to be overnight 20:00-06:00.
- 3.2.2 There are no firm dates to undertake the survey works but they are expected be between the period 24<sup>th</sup> February to the 21<sup>st</sup> April 2020.
- 3.2.3 The works on site is expected to take 5 days and the contractor will be given 3 weeks notice.

#### **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 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 which can be found in document: Pre-Construction Information – A5 Schemes Surveys 1.
- 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:
- (1) the *starting date* will be 24/02/2020 and *completion date* (all results received by Highways England) will be 04/05/2020.
  - (2) If the site works are completed earlier then the lab testing and reports are expected to be completed within another 2 weeks.
  - (3) The services and other things provided by *Employer* (see Section 5)
  - (4) The contractor is to allow for a pre start meeting on TBC, to develop the programme.
  - (5) Welfare facilities are to be in place prior to works commencing on site
  - (6) Other Contractors will be working on this site, the principal contractor is to liaise with all parties to develop a programme for the works, it is anticipated that different surveys can be carried out concurrently to minimise the length of the programme.
  - (7) The utility & drainage surveys must be completed, and the information provided to the PC and other Contractors at the Newton Lane and Daventry Road site locations prior to any excavation works such as boring or core works. This is since there are stats present that will mean that some adjustment to the locations of excavations (bores, cores) following the identification of underground stats.
  - (8) There are multiple site locations on the A5 as part of this package of survey works, the Programme must consider this.
- 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* & *Contractor'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
- 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) Temporary Traffic Management will be provided by others under the CWF. The Traffic Management is expected to consist of night-time traffic lights on the A5 at each site location.
- (1) *Contractor* to liaise with *Employer* regarding the Temporary traffic management they require to carry out the works.
- (2) *Contractor is to liaise with the Employer regarding access to site. Contractor is to communicate any access issues and how these may affect the work.*
- (3) Road space on Highways England network is to be managed by the principal contractor.

5.1.2 The other things that will be provided by the *Employer* are as follows:

- (1) Welfare facilities are to be provided by the principal contractor, needs are to be identified by the contractor and communicated with the principal contractor.
- (2) Desktop search for utility information (Type D) survey. This information will be provided to the contractor at the pricing stage. The contractor is not required to send out for this information again.

## **6 SPECIFICATION FOR THE WORKS**

### **6.1.1 Site Information**

6.1.2 The site information is detailed in HE564883 National TST Model Site Information vr2.1 July 2018 – A5 Safety Improvement Schemes Surveys.

### **6.2.1 Topographical survey**

6.2.2 The Contractor shall undertake the works in accordance with National AD Technical Surveys & Testing contract documentation, PAS128:2104 as well as the additional requirements:

6.2.3 The contractor shall pick up ditch profiles and the verge to the highway boundary as accurately as possible. In some locations (refer to drawings) levels are required within third party land adjacent to the highway.

6.2.3 All surveys shall be provided electronically and include two CAD files, one in 2D, the other a 3D file, both in .dwg format compatible with AutoCAD Civil3D. In addition the survey shall be provided with 3D strings and points in GENIO format for use in Bentley MX V8i software.

6.2.4 A method statement, programme of works, risk assessment and safety plan for the survey shall be submitted to the client before commencing work on-site.

### **6.3.1 Underground utility detection, verification and location Survey**

6.3.2 The following information specifies the scope, survey type accuracy and deliverables required for this survey.

6.3.3 It is to be noted that a desktop search for utility information (Type D) has already been carried out. This information will be provided to the contractor at the pricing stage. The contractor is not required to send out for this information again.

6.3.4 The following surveys are to be carried out in accordance with PAS 128:2014. The details of how the specified survey type is to be carried out, including methodology and deliverables are included in this document. Further information is included below.

### **6.4.5 Type B survey**

6.4.6 Type B survey shall be undertaken using geophysical techniques to detect and identify utilities within the survey area. The following parameters apply;

- Quality level shall be QL-B1P with post processing. Multiple geophysical techniques shall be used as detailed in PAS 128:2014
- The contractor is to advise the client and price accordingly the level of detection method (M1 – M4) required to achieve the quality level defined above.

- 6.4.7 The contractor will be able to perform both the main topographical survey works required as detailed above and the utility detection works to reduce duplication of works.

### 6.5.1 Type A Survey

- 6.5.2 A Type A survey shall be undertaken by inspection at access points such as in a manhole or inspection chamber to quality QL-A.

- 6.5.3 Following a type D survey the following underground utilities have been identified within the survey area at each site. Trial holes to be taken at the best location to fill in any gaps/discrepancies in coverage left by the Type B survey and cover lifting, the table below indicates the expected number of trial holes at each location:

Location	Underground Utilities Identified within survey area	Indicative Trial Holes Required
A5 Newton Lane Junction	BT 132kV Electric 33kV Electric	5 no. total trial holes within the extents of the survey area to locate the underground utilities identified.
A5 Daventry Road Crossroads	BT Water 33kV Electric Street Lighting	8 no. total trial holes within the extents of the survey area to locate the underground utilities identified.
A5 Weedon Bec Village to Heyford Lane	<p><u>Location 1</u> BT 11kV Electric</p> <p><u>Location 2</u> BT</p> <p><u>Location 3</u> BT</p> <p><u>Location 4</u> BT LV Electric 11kV</p> <p><u>Location 5</u> Water 11kV BT LV</p> <p><u>Location 6</u></p>	<p><u>Location 1</u> 2 no. total trial holes within the extents of the survey area to locate the underground utilities identified.</p> <p><u>Location 2</u> 1 no. total trial holes within the extents of the survey area to locate the underground utilities identified.</p> <p><u>Location 3</u> 1 no. total trial holes within the extents of the survey area to locate the underground utilities identified.</p> <p><u>Location 4</u> 2 no. total trial holes within the extents of the survey area to locate the underground utilities identified.</p>

	Water 11kV BT LV SE	identified.  <u>Location 5</u> 2 no. total trial holes within the extents of the survey area to locate the underground utilities identified.  <u>Location 6</u> 2 no. total trial holes within the extents of the survey area to locate the underground utilities identified.
A5 Greys Lane Pury Road	BT Water 11kV	2 no. total trial holes within the extents of the survey areas to locate the underground utilities identified.

6.5.4 The quality level of trial holes shall be QL-A.

6.5.5 The contractor will be able to perform both the main topographical survey works required as detailed above and the utility detection works to reduce duplication of works.

6.5.7 Physical entry into confined space is not to be attempted without suitably trained operatives and safety equipment. Attention is drawn to HSE's publication, Confined space – A brief guide to working safely (INDG258) [1].

#### 6.6.1 Site Clearance

6.6.2 The contractor is to provide plant, materials & labour to carry out vegetation clearance to enable features to be accurately surveyed. **Additionally, the contractor is to liaise with other contractors and provide site clearance for access to carry out other activities. Extent of clearance proposed by contractors is to be agreed with employer.**