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RAILTRACK PLC

MODEL CLAUSES FOR SPECIFYING CIVIL ENGINEERING WORKS

SECTION 25
Presentation of Survey Data and Information

ISSUE NO. 1 REVISION A

RT/CE/C/008/025N
Page 1 of 16

Date: 30 September 1996

Submitted by: Keith Ross
Structures Standards Engineer
Civil Engineering Directorate
King's Cross

Approved by: Model Clauses (Civil Engineering) Committee on 8 October 1996

Signature: .....
for Director, Civil Engineering

John Horsler
Civil Engineer, Structures Compliance
Chairman Model Clauses (Civil Engineering) Committee

Amendments

Amendments and additions since the previous issue are marked by a vertical line in the right hand margin.

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SECTION 25 **PRESENTATION OF SURVEY DATA AND INFORMATION**

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SECTION 25 *PRESENTATION OF SURVEY DATA AND INFORMATION*

NOTES TO SPECIFIER:

These notes do not form part of the Specification.

Scope of the Section **25.1** *This Section specifies the requirements for the presentation of data arising from either an aerial or ground survey, and defines the requirements for digital mapping, drawings and technical reports. It should be read in conjunction with the corresponding survey Section.*

All survey data and mapping should be related to Ordnance Survey National Grid but plotted to a true scale and to Newlyn height datum.

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SECTION 25 PRESENTATION OF SURVEY DATA AND INFORMATION

Delivery of results **25.001**

The original records of observations, computations and adjustment, shall be supplied bound and indexed.

Two sets of final results shall be supplied in robust ring binders containing:

(i) Horizontal and vertical control net diagrams,

(ii) Abstracts of unadjusted and adjusted observations (eg height differences between bench marks),

(iii) Lists of P.G.M.s, photopoints, Ordnance Survey control stations and bench marks used, with final National Grid and true grid co-ordinates and heights based on Ordnance Survey Newlyn datum together with the transformation factor, to allow transformation of true grid to Ordnance Survey co-ordinates,

(iv) Designations of all P.G.M.s with location map, description, type of mark, photograph and instructions for gaining access if not on public access.

Aerial survey only

(v) Photo control results including diapositives, control prints and lists and descriptions of plan and height control points with run/exposure number of pricked aerial photograph.

Moss surveys

!C!

(vi) An ASCII Moss Genio Data file on a ¼" magnetic tape*!CHECK!* containing true co-ordinates and height of all control stations, traverse stations and Ordnance Survey control stations.

(25.001)

Technical report on horizontal and vertical control **25.002**

A concise technical report shall be provided as part of the final delivery of control results containing the following:

(i) A copy of the Contract Specification with any variations or agreed amendments,

(ii) Horizontal and vertical control net diagrams (A3 size) showing connections to existing stations and bench marks and summaries of closures and residuals after adjustment,

'

(iii) A description of the methods, equipment and staff employed on the project,

(iv) Confirmation of the survey accuracy required and achieved,

(v) A summary of the planned and actual programme of work and delivery schedule,

(vi) Abstracts of unadjusted and adjusted observations (eg height differences between bench marks),

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(vii) Description of the method of adjustment of the horizontal and vertical net with rejected values, residuals etc,

(viii) A quality management report describing the procedures used to test the accuracy, completeness and reliability of data and the results of tests,

(ix) Comments on the specification and results and recommendations for future work.

A draft of the report shall be submitted for comment and amendment by the Employer's Representative and two copies of the final report shall be provided, one bound and one unbound.

(25.002)

Digital mapping for site verification **25.003**

Interpretative skills shall be used to complete detail features which are partly obscured or fully obscured for short distances, using the unreliable feature codes and dashed lines.

Features such as running rails, cess lines and railway boundaries which are required for mapping shall be continued through the Site as continuous strings.

The plans shall be plotted at 1:500 for site verification by Railtrack.

A paper plot from the actual data shall be provided with all survey files for comment or acceptance.

(25.003)

Digital data drawings **25.004**

All topographic mapping data shall be supplied to Railtrack as three dimensional strings. Each string within the system will have a unique label associated with it as a means of identification.

!C! The standard string identification as specified in Clause 25.008*!CHECK!* shall be used.

!C! The digital data shall be supplied as an AutoCAD 12 drawing file or in compatible DXF data transfer format and as three dimensional strings in Moss Genio format suitable for entry to Railtrack's Moss system in accordance with Table 25/1.*!CHECK!*

Amend as applicable to system in use

Table 25/1 System Information	
System name	Moss
Data Interchange Format	Genio
Make of Computer	IBM RS6000
Exchange Data	Magnetic tape ¼" cartridge or 3½" diskette
Code	ASCII

The data will be considered as delivered once the information contained on the cartridge or diskette has been successfully loaded on to the Railtrack system and verified correct.

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