

Ref:	NR/L3/TRK/3104
Issue:	1
Date:	3 March 2012
Compliance date:	2 June 2012

Level 3

Asset data extraction and topographic surveying – Signalling

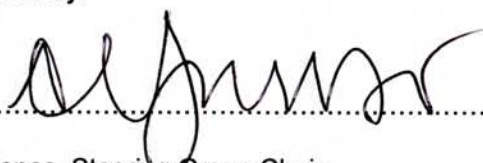
Endorsement and Authorisation

Endorsed by:



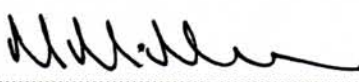
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Andy Jones, Steering Group Chair

Accepted for issue by:



Mick McManus, National Standards Manager

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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *No deviations, could stop the railway*

- **Red requirements shall** always be complied with and achieved.
- Red requirements shall be presented in a red box **with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of red requirements lies with the Professional Head/Standard Owner.
- Red requirements are monitored for compliance.
- Corrective actions shall be enforced if deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Amber requirements – *Controlled deviations, approved risk analysis and mitigation*

- **Amber requirements shall** be complied with unless deviation has been approved in advance.
- Amber requirements shall be presented with an amber sidebar **and with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of these requirements lies with the Professional Head/Standard Owner, or their nominated Delegated Authority.
- Amber requirements are monitored for compliance.
- Deviations **may** be permitted. Deviations are approved by the Standard Owner or through existing Delegated Authority arrangements.
- Corrective actions shall be enforced if **non-approved** deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Green – *Guidance*

- Guidance is based on good practice. Guidance represents supporting information to help achieve **Red** and **Amber** requirements.
- Guidance shall be presented with a dotted green sidebar **and with the word “should” (usually in notes) or as a direct instruction**.
- Guidance is **not mandatory** and is not monitored for compliance.
- Alternative solutions may be used. Alternative solutions do not need to be formally approved.
- Decisions made by a competent person to use alternative solutions should be backed up by appropriate evidence or documentation.

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Issue record

Issue	Date	Comments
1	March 2012	First issue

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 2 June 2012.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference documentation

NR/L2/TRK/3100, *Topographic, Engineering, Land and Measured building surveying – Strategy and general*

NR/L3/TRK/3101, *Topographic, Engineering, Land and Measured building surveying – Track*

NR/L2/SIG/11201/ModA3, *Assessment of Signalling Systems before Signalling Design Alterations*

NR/L2/SIG/11201/ModA7, *Correlation of Signalling Records*

GRD016, *Signalling Asset Survey Data Specification*

Signalling gradient charts production specification v1.1

Disclaimer

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1 Purpose

This standard specifies access to data for use when alterations or renewals of the Signalling system will be undertaken. Access is via existing data repositories where the validity of the data is known. Where the validity is uncertain, the survey methodologies specified in this standard apply.

This Signalling standard supports the general Level 2 survey standard NR/L2/TRK/3100, *Topographic, Engineering, Land and Measured building surveying – Strategy and general*, particularly in the need to set out Project Survey Strategy.

This Project Survey Strategy is required to initially address the need to establish access to existing data before embarking on expensive and intrusive surveys of the infrastructure.

2 Scope

This Network Rail standard specifies the provision of Signalling asset data for use in the development, design, construction, test and commissioning of Signalling assets on the Network Rail infrastructure.

GRD016, *Signalling Asset Survey Data Specification* defines the format of the data to be delivered by the survey for use within Signalling project development and design, e.g. production of scheme plans.

The ongoing configuration management of the “as-is” Signalling asset data is outside of the scope of this standard.

3 Definitions

For the purpose of this standard, the terms and definitions specified in NR/L2/TRK/3100 and the following apply.

datum reference point

single non-movable location, e.g. structure, upon which a signalling project is based. One location per ELR within the project area is used

gradient or slope

difference in height above sea level between two known points

NOTE It is usually defined in terms of the ratio of change in height over a given distance. A gradient of 1:2 would mean for every 2 metres moved horizontally there would be a change in vertical height of 1 metre

quality control reference points

individual features measured by alternative measurement methods, e.g. total station and compared to existing dataset to verify the results

Survey Waiver

derogation to allow the waiving of carrying out a condition survey

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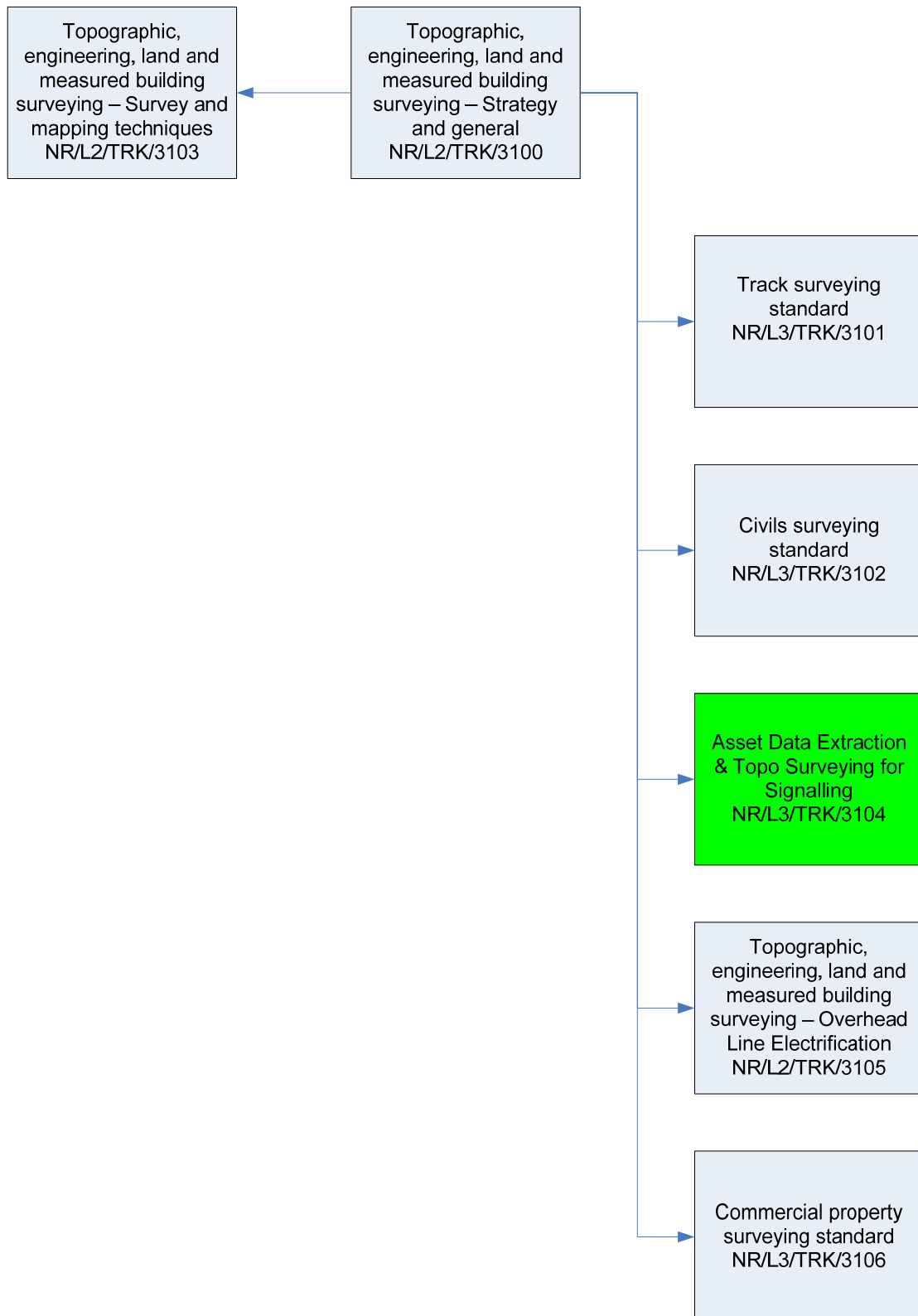


Figure 1 – Survey standards