Reference material

Interface Agreement between Signal Engineering and Track Engineering

This legacy document is published as historical reference material. The content described might be of assistance to individuals and organisations performing work on Transport for NSW Rail Assets.

This document refers to organisational and positional roles and responsibilities in place prior to 1 July 2013 and may have been superseded by other documents.

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Interface Agreement

between

Signal Engineering
and
Track Engineering

Version
Approved

Date
12 July 2005
Amended: 10 November 2009

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1 INTRODUCTION

This interface document identifies the interfaces between Track and Signal Engineering and the responsibilities at those interfaces.

The purpose is to establish clear accountabilities and ensure safety issues are well controlled.

2 SECTION RESPONSIBILITIES

Track Engineering is responsible for the design and standards for track and transit space.

Signal Engineering is responsible for the design and standards for signalling systems.

Both groups exist within the Engineering Division of RailCorp. Where a group is identified as 'Major responsibility' that group is the primary approval for the safety of that item.

3 INTERFACES

3.1 General

Interfaces between the section are considered only when an output or requirement from one section directly impacts on the designs of the other.

These interfaces can occur in three general areas, standards, projects (design) and operational.

3.2 Standards and Procedures

Once a standard is approved, its use may occur without reference back to the other section, providing the standard is applicable and complied with.

3.3 Projects

Individual projects may require direct liaison where the scope of the work may impact the other. The result should be a sign off on the arrangements by both groups.

3.4 Operational

Operational Interfaces occur where train operating issues affecting track or signals, has an impact on the other. These include track speeds (including temporary speeds) with braking distances and level crossing; rail head suitability for track circuit shunting; and track condition impacting signalling adjustments.

4 SPECIFIC INTERFACES

4.1 Standards and Procedures

ITEM	TRACK RESPONSIBILITY	SIGNAL RESPONSIBILITY
Attachments to Sleepers	Major responsibility for process approval	Advise on requirements. Compliance with process
Equipment Mounting on Sleeper including Points Machine, Cranks, etc	Advice on connection process	Major responsibility and compliance
Clearance Points and Transit Space	Major responsibility	Compliance with Standard
Drilling of Rails	Major responsibility	Advise on requirements. Compliance with Standards
Insulated Joints Specification	Major responsibility	Advice on insulation resistance
Lateral Movement and Vibration of Points	Major responsibility	Signals specify requirements and advise Track
Location of Cable Attachments and Signalling Equipment	Advice on standards	Major responsibility and compliance
Longitudinal Switch Movement	Major responsibility	Advice on switch rail movement – specification
Point Clips	Advice on attachment and design	Major responsibility
Rail Sleeper / Bearer Insulation	Major responsibility	Advice on suitability
Rail surface cleanliness from rail application equipment	Major responsibility	Advice on grease properties and other friction modifiers
Rodding	Advice on attachment	Major responsibility for design and installation
Speed Board Application Principles	Major responsibility	Agreement on principles
Stockrail Attachment to bearers or sleepers	Major responsibility	Acceptance of Suitability
Switch rollers In plate type	Major responsibility for attachment method and device	Assist with advice Signals inspect only
Switch rollers separate type	Advice on attachment if necessary	Major responsibility for type approval and adjustment
Track magnets	Major responsibility	Not Signals

ITEM	TRACK RESPONSIBILITY	SIGNAL RESPONSIBILITY
Train Stop	Provide a space in the structure gauge for trainstop infringement	Major responsibility. Ensure train stop remains in allocated space
Turnout Switch Opening	Major responsibility for limit for safe space standard	Compliance Signals to set requirement to suit equipment
Welding / Attachment to Rail	Major responsibility to approve process	Advise on requirements. Compliance with process
Wheel Detectors as part of signalling system (not part of a Wayside Device)	Advice on Mounting	Major responsibility
Wheel/Rail Contact shapes	Major responsibility shared with Rolling Stock	Advice on shunting issue

4.2 Projects

This item includes all items of a project specific nature:

ITEM	TRACK RESPONSIBILITY	SIGNAL RESPONSIBILITY
Alterations to Speeds	Major responsibility	Agreement to new speeds being suitable for braking and overlap distances and level crossing and warning light warning time
Catchpoints and Runaway Points	Relation to clearance points	Responsible for decision and need for catchpoints in signalled areas
	Advise on standing room and configuration	Advise on location, advise on run off speed
	Major responsibility Track Structure and configuration	Advise on purpose of catchpoint and clearance point
Changes to track affecting clearance points	Major responsibility	Agreement of suitability
Changes to Turnouts	Major responsibility	Advice on insulated joint position. Advice on method of operation
Introduction of a new direction of traffic flow over points and plain track	Major responsibility for speed board and suitability of points	Advice if movement is signalled

4.3 Operational

ITEM	TRACK RESPONSIBILITY	SIGNAL RESPONSIBILITY
Drainage Issues and Ballast Cleanliness	Major responsibility	Advice on issues
Joint Turnout Inspections	Joint responsibility	Joint responsibility
Point tolerance to longitudinal switch movement	Major responsibility to control movement	Major responsibilities to reduce impact of switch movement on adjustments
Road Movement at signal connections (including pumping)	Major responsibility	Advice on signalling adjustment sensitivities
Spark Erosion at rail joints	To be investigated	To be investigated
Track Circuit Operation	Advice on changes to rail head condition	Major responsibility
	Advice on major changes to track structure	Major responsibility
	Advice on work that may impact track insulation (ie security to structure)	Major responsibility
Points Cleared Signs	Major Responsibility	Not Applicable
Speed Signs	Major Responsibility	Input on signalling constraints
Intermediate Train Stop Advisory Speed Signs	Not Applicable	Major Responsibility
Train Stopping Location Signs	Major Responsibility	Not Applicable

4.4 Future Interfaces (To be determined)

ITEM	TRACK RESPONSIBILITY	SIGNAL RESPONSIBILITY
Stray current corrosion		
Magnetism		