

Uncontrolled When Printed
RAILTRACK
Safety & Standards

Briefing Notes for:	1. Design Requirements for Structures 2. Recommendations for the design of Bridges
Document No:	GC/RT5110 & Issue: Two GCRC5510
Subject Committee(s)	Track and Structures Subject Committee
Issue date:	August 2000
Initial Compliance Date	November 2000

BACKGROUND

The primary aim of undertaking an update of this standard was to introduce controls necessitated by the introduction of high speed and tilting trains. In addition, the opportunity has been taken to expand the coverage of the standards, so that it applies not only to Railtrack but all appropriate Railway Group Members. The need to consider future traffic use is also highlighted. In addition the reference to the loading standard GC/RT5112 has been corrected.

KEY CHANGES INTRODUCED BY THIS RAILWAY GROUP STANDARD

The standard has been revised in general terms to address the points raised above. Specific reference has been made for the need to consider aerodynamic effects of passing trains. In addition a number of changes have been made as a result of the consultation process. These principally cover:

- Section 17 – dealing with structures owned by outside parties;
- Section 13 – dealing with operational safety;
- Section 9 - reference to GM/RT2149.

Where appropriate, the standard has been made compatible with GC/RT5100 “Safe Management of Structures”.

With regards to the Code of Practice, GC/RC5510, the main changes have been to strengthen the clauses relating to high speed trains and bridges (deck acceleration, higher impacts and resonance). Section 19.9.

Other references have been included to indicate that whereas the Code of Practice is generally applicable for speeds up to 300km/h some of the clauses are not. These have been clearly identified. These aspects will have to be treated on a case by case basis, because application rules are not widely available.

Section 7.5.5 on reinforced soil elements has been strengthened to cover possible unacceptable differential settlement, which would affect track alignment.

At consultation, comment was passed on the need to retain Appendix K (relating to Section 9.1.1). This has been retained, because it provided helpful advice.

COMPLIANCE REQUIREMENTS

The compliance date for this standard is November 2000.