

# STRUCTURAL APPRAISAL OF EXISTING BUILDINGS, INCLUDING FOR A MATERIAL CHANGE OF USE

## Part 3: Structural appraisal procedures

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This Digest gives guidance to professional engineers on the structural appraisal of existing buildings, including making a structural appraisal for a material change of use.

Part 3 describes structural appraisal procedures. It looks in detail at the process of structural appraisal: at the steps involved, and at the levels of activity. It then goes on to consider structural work needed for a proposed change of use, at health and safety issues, and at reporting on the outcome of the appraisal. Annexes to this Part cover ancillary aspects of the appraisal (safety concepts, partial safety factors, target reliability values), and residual service life estimation.

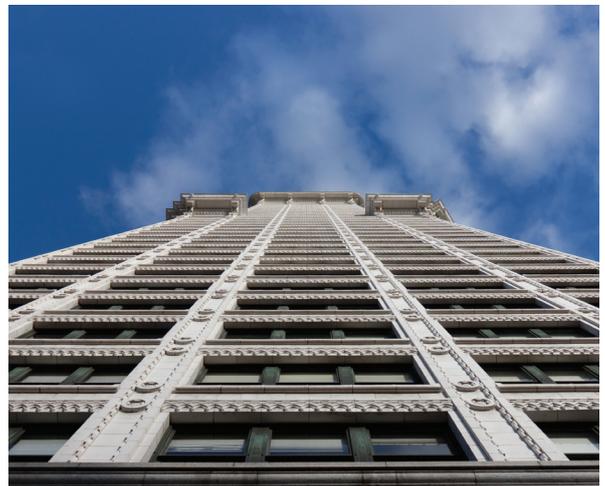


Figure 1: Looking up the facade of a terracotta office building

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## 1 THE STRUCTURAL APPRAISAL PROCESS

### 1.1 Overview

The process of carrying out a structural appraisal of an existing building involves gathering information and evaluating it to understand the implications for the building's current and future use. This requires information already in existence for the building to be identified, collected and evaluated, along with the nature and extent of any additional information required to complete the task.

Ideally, the client would provide the engineer with a dossier of structural drawings and other documents, providing a complete description of the original structure

as built, and of any subsequent alteration and repair. More often, though, the engineer will have to search for appropriate information. Although the building can be used as the primary source of information (see Box 1 in Part 4 due for publication at the end of 2012), much effort and expense can be saved if documentary information can be obtained. A health and safety file, which would contain much of the desired information, should have been compiled for buildings constructed in the UK after 1994, but often this will not be available, or will be incomplete.

Even if such information is provided, the engineer should still check critical aspects of the data, as far as possible, by checking against evidence obtained from the structure by inspection, opening-up, or testing.