10.2 Pre-calculation checks — load paths and construction sequences 142
  10.2.1 Load paths 142
  10.2.2 Construction sequences 144
10.3 Empirical design — does it look right? 145
10.4 Concept design calculations 153
  10.4.1 Establishing the loads 154
  10.4.2 Determining the forces — approximate structural analysis 154
  10.4.3 Sizing the elements 158
  10.4.4 Typical elements 160
10.5 Documenting the calculations 187
10.6 Checking the calculations 188
10.7 Next steps 189

11 Practical examples of three generic building types — with two potential solutions for each 191
  11.1 Introduction and design philosophy 191
  11.2 Ten-storey high office building, with open plan layout 192
  11.3 30m span single storey building, with open plan layout 215
  11.4 Three-storey residential building/apartment block, with cellular layout 233
  11.5 Suggested reading 235

12 What to produce at the end of the conceptual design process 236
  12.1 Stage 2 report — the only output our client looks at 236
    12.1.1 The importance of communicating the design to a different number of people 236
    12.1.2 How to make reports accessible and professional — a ‘style guide’ 237
    12.1.3 Content — what’s in and what’s out? 240
  12.2 Drawings 245
    12.2.1 BIM 246
    12.2.2 What to include 246
  12.3 Cost proposal 248
  12.4 Programme and ‘information required schedule’ 249
  12.5 Specification 250
  12.6 Scope of works 250

References 251

The front cover image 255