
British Standard

Construction drawing practice

Part 2. Recommendations for architectural
and engineering drawings

Dessins de construction

Partie 2. Recommandations pour le dessin architectural et le dessin technique

Bauzeichnungen

Teil 2. Empfehlungen für Architektur- und Bauzeichnungen

Foreword

This Part of BS 1192, having been prepared under the direction of the Basic Data and Performance Criteria for Civil Engineering and Building Structures Standards Committee, completes the revision of BS 1192 : 1969 (withdrawn in February 1984). It has been written to bring the recommendations for construction drawing practice up to date and to comply with other national standards of the United Kingdom and with standards of the International Organization for Standardization (ISO) that have been accepted by the UK.

BS 1192 comprises four Parts as follows:

- Part 1. Recommendations for general principles
- Part 2. Recommendations for architectural and engineering* drawings
- Part 3. Recommendations for symbols and other graphic conventions
- Part 4. Recommendations for landscape drawings

It gives recommendations regarding the production of graphical information needed to provide communication, with accuracy, clarity, economy and consistency of presentation, between all concerned with the construction industry, including architects, civil engineers, contractors, landscape architects, services engineers, site operatives and structural engineers.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

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Recommendations



Figure 1. The completed project

0 Introduction

0.1 Objectives

This Part of BS 1192 illustrates the recommendations given in BS 1192 : Parts 1 and 3. The drawings have been based upon the contract drawings for a completed project and have been chosen to illustrate drawing practice only.

0.2 Manual and computer draughting

The drawings have been prepared by manual draughting, except for figure 7 which is a computer version of figure 6. The same general principles of drawing practice apply to both methods.

0.3 Scales

The drawings have been reduced to A4 illustrations and do not, as printed, comply with 13.2.1 of BS 1192 : Part 1 : 1984. The scales as drawn and as illustrated are stated on each drawing.

0.4 Datums and levels

Datums and levels on the drawings comply with clause 17 and figure 14 of BS 1192 : Part 1 : 1984 but, as a general rule, tolerances on levels and sizes are not shown. Recommendations regarding methods for indicating tolerance requirements on construction drawings are given in BS 1192 : Part 1.

0.5 Cross-references

Examples of cross-references are included on the drawings for illustrative purposes only.

0.6 Arrangement and coordination of sets of drawings

A code of procedure for production drawings*, that can be read in conjunction with BS 1192, is to be published by the four sponsoring bodies of the Coordinating Committee for Project Information (CCPI). The code will give guidance on the management of the preparation of drawings and the arrangement and coordination of sets of drawings.

Section one. General

1 Scope

This Part of BS 1192 illustrates the general principles of construction drawing practice given in BS 1192 : Part 1, and the application of the symbols and conventions given in BS 1192 : Part 3.

Part 2 contains a selection from the drawings or parts of drawings needed for a construction project. The range of drawings, which does not constitute a complete set, includes a selection of those of architects, structural engineers, building services engineers and civil engineers.

The drawings do not cover the work of all persons involved in the construction process, but the same general principles apply in all construction drawing practice.

NOTE 1. The Parts of BS 1192 should be read in conjunction with each other.

NOTE 2. The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this Part of BS 1192, the definitions given in BS 1192 : Part 1 and BS 3975 apply.

3 The illustrated scheme

3.1 The building

The building is a three storey administration building with a roof top plant room, constructed within an existing industrial complex. The building was designed and constructed in accordance with the statutory requirements in force at the time, and was selected because it incorporated a wide range of elements and services.

In order to extend the range of drawings, a motorway bridge, a tower, a jetty, a railway siding and a sewer have been added.

3.2 Drawings

The original contract drawings have been redrawn, by the multi-disciplinary practice responsible for the original design of the building, to comply with BS 1192 : Parts 1, 3 and 4. (Reference should however be made to 0.3.)

3.3 Photograph

Figure 1 is a photograph of the building referred to in 3.1.

Section two. Explanatory notes on the drawings

4 Architectural drawings

4.1 Drawings included

Location, assembly, component range and detail drawings are included together with a schedule, a planometric projection and a one-point perspective. For clarity at the reduced scale of publication, some information has been omitted.

4.2 Drawing techniques

Most of the drawings have been prepared using a ruled line technique, including the computer plot (figure 7), but examples of a freehand technique are shown in figures 12, 14 and 15. In some cases copy negatives have been used as a basis for building services engineering drawings (figures 31, 32, 34, 35, 37).

4.3 Particular points illustrated by the drawings

4.3.1 Figure 2 (block plan).

- (a) An A3 drawing sheet complying with 11.2 and 11.3 of BS 1192 : Part 1 : 1984.
- (b) Incorporation of National Grid to locate the site (see figure 16 of BS 1192 : Part 4 : 1984).
- (c) Use of thicker outline, hatching and toning to differentiate between elements of the scheme (see clause 18 of BS 1192 : Part 1 : 1984).
- (d) Use of reference numbers and a legend to identify elements of the scheme (see clause 21 of BS 1192 : Part 1 : 1984).

4.3.2 Figure 3 (site plan; landscaping).

- (a) Use of thicker outlines, hatching and toning to differentiate between elements of the work (see clause 18 of BS 1192 : Part 1 : 1984).
- (b) Use of symbols from BS 1192 : Parts 3 and 4 for external works, landscaping and referencing to other drawings.

NOTE 1. Grid notations should normally be shown outside a building plan but in this instance, in the interests of clarity, they are shown inside the building plan.

NOTE 2. Setting out dimensions can be shown on a separate drawing.

4.3.3 Figures 4, 5, 6 and 7 (floor plans). Figures 4, 5 and 6 show the use of different line thicknesses in manual draughting. Figure 7 illustrates computer draughting.

4.3.4 Figures 8 (cut) and 9 (west elevation).

- (a) Use of different line thicknesses to differentiate between elements seen in section and elevation (see 18.2.1 of BS 1192 : Part 1 : 1984).

- (b) Use of representational hatching (for the level 1 brickwork and the level 4 cladding) (see 18.2.2 of BS 1192 : Part 1 : 1984).

4.3.5 Figure 10 (cut, stair 1). Use of stencilled and free-hand lettering to indicate different types of information.

4.3.6 Figures 11 and 12 (window details).

- (a) In figure 11, ruled line draughting and stencilled lettering, with references to a specification.
- (b) In figure 12, freehand draughting and lettering giving specification notes.

NOTE. See clause 21 of BS 1192 : Part 1 : 1984, for recommendations regarding lettering.

4.3.7 Figure 13 (doorsets).

- (a) Use of coordinating dimensions.
- (b) References to component details (see figure 14).

NOTE 1. Figure 13 is part of a large drawing with several details and notes.

NOTE 2. The drawing depicted in figure 13 was accompanied by schedules (see figure 16) giving detailed information for the manufacture and installation of each doorset.

4.3.8 Figure 14 (doorset detail) and 15 (doorset opening detail).

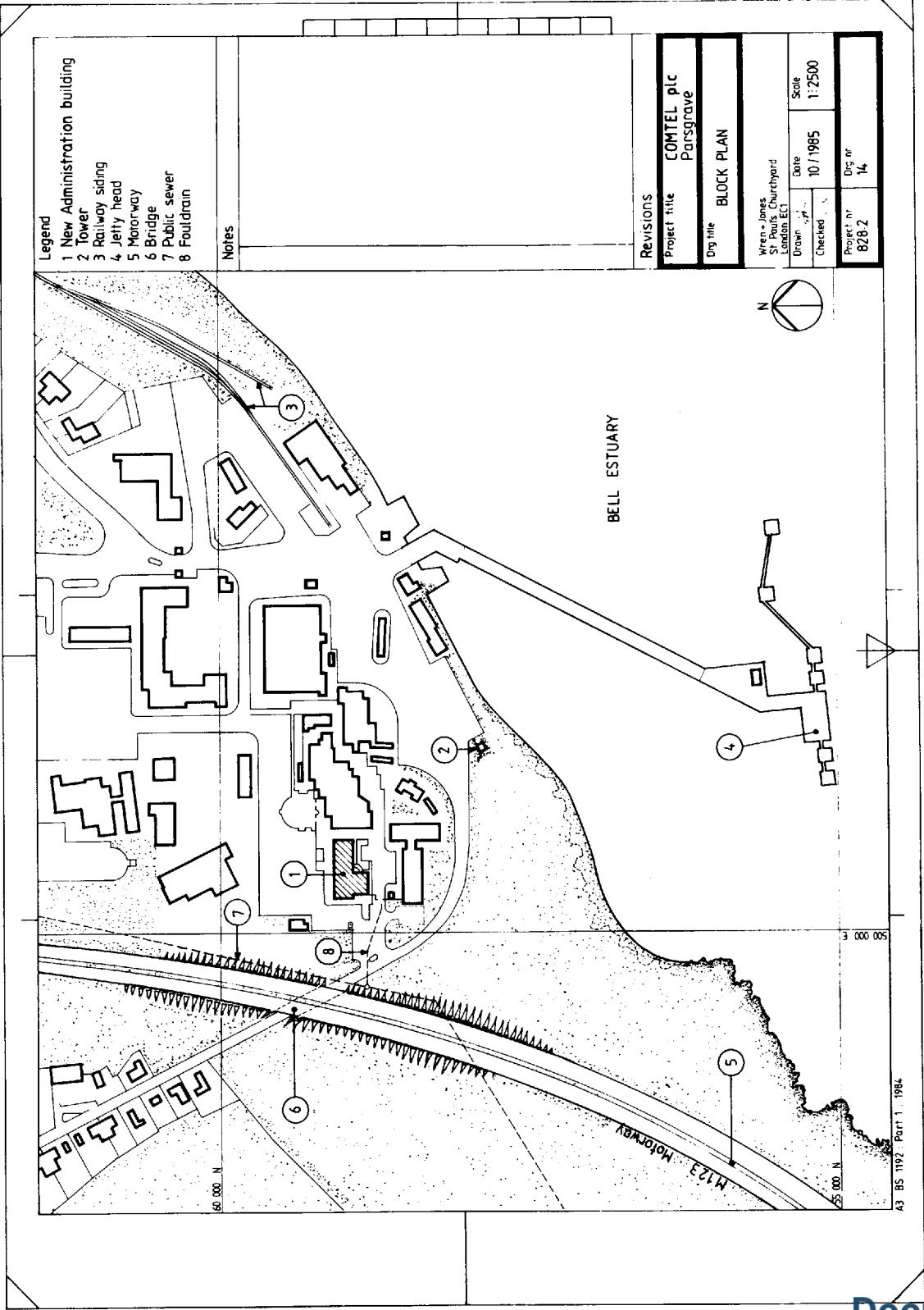
- (a) Use of coordinating dimensions, work sizes and tolerances (given in the specification).
- (b) Freehand draughting and lettering.
- (c) References to a separate specification (see clause 4 of BS 1192 : Part 1 : 1984).

4.3.9 Figure 16 (doorsets, hardware schedule). One way of compiling a schedule by filling in a printed form that can act as a 'check list' and that can also incorporate guidance notes.

4.3.10 Figure 17 (corner detail of GRC cladding, level 4).

- (a) Use of different line thicknesses and toning to clarify the drawing.
- (b) How such a view, using a projection method (planometric) from figure 9 of BS 1192 : Part 1 : 1984, can clarify the application at a complex point of details shown on plan and in section elsewhere.

4.3.11 Figure 18 (interior view, level 2). A projection method (one point perspective), not always included in a set of production drawings, illustrated in figure 9 of BS 1192 : Part 1 : 1984.



(LOCATION)

Figure 2. Block plan (drawn at 1:2500, printed NTS)



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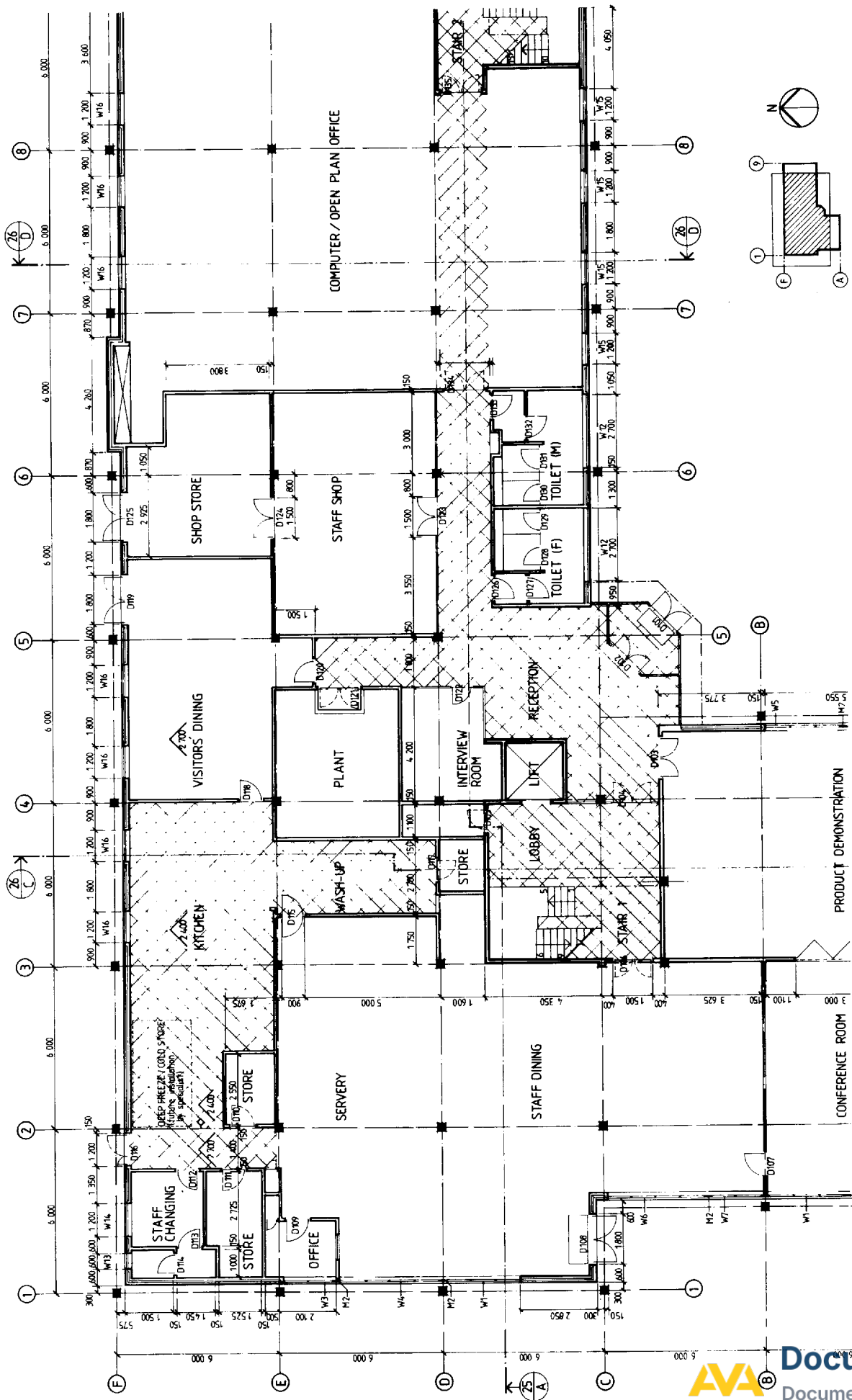


Figure 4. Plan, level 1 (drawn at 1:100, printed at 1:200)