

Construction drawings — Landscape drawing practice

ICS 01.100.30

National foreword

This British Standard reproduces verbatim ISO 11091:1994 and implements it as the UK national standard. It supersedes BS 1192-4:1984 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee B/212, Tolerances, drawing practice, modular co-ordination, joints, project information and computer modelling, to Subcommittee B/212/2, Construction drawing practice, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, page 2, the ISO title page, pages ii to iv, pages 1 to 12 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 October 1999

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English version

Construction drawings — Landscape drawing practice

(ISO 11091:1994)

Dessins de construction — Pratique en matière
de dessins de paysages
(ISO 11091:1994)

Zeichnungen für das Bauwesen — Zeichnungen
für Außenanlagen
(ISO 11091:1994)

This European Standard was approved by CEN on 20 May 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

The text of the International Standard from Technical Committee ISO/TC 10 “Technical drawings, product definition and related documentation” of the International Organization for Standardization (ISO) has been taken over as an European Standard by CEN/CS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2000, and conflicting national standards shall be withdrawn at the latest by January 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 11091:1994 has been approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO 11091

First edition
1994-12-15

Construction drawings — Landscape drawing practice

Dessins de construction — Pratique en matière de dessins de paysages



Reference number
ISO 11091:1994(E)

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Descriptors: Drawings, technical drawings construction, schematic representation.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11091 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*, Subcommittee SC 8, *Construction documentation*.

Annex A and Annex B of this International Standard are for information only.

1 Scope

This International Standard establishes general rules and specifies graphical symbols and simplified representations for landscape drawing practice.

The graphical symbols and simplified representation are jointly referred to as conventions. The conventions given in International Standards which are applicable to landscape drawings are presented in Annex A.

2 General rules

The extent of information shown on landscape drawings will depend on the degree of accuracy required by the type of work.

Production drawings shall be adequately dimensioned to allow for accurate setting out.

In certain circumstances it is desirable to make final adjustments on site (e.g. tree positions). In such cases drawings shall be suitably annotated.

Existing and proposed levels shall be shown, either as spot levels or as contours or both where appropriate. The vertical interval of contours and the spacing of grid levels depend on the character of the site and the nature of the project.

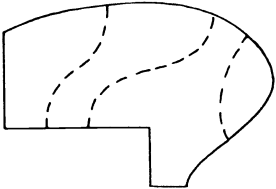
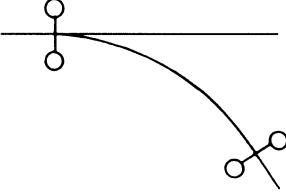
Similar areas shown on different drawings should be appropriately cross-referenced.

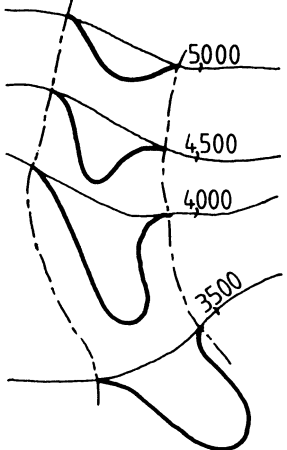
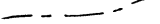
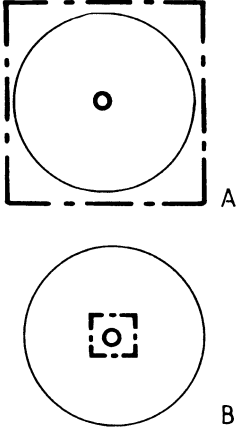
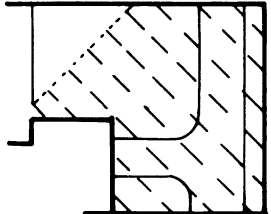
3 Conventions

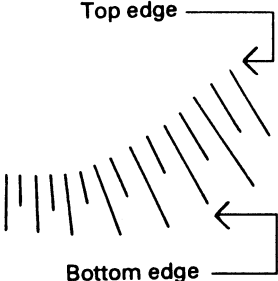
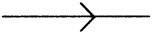
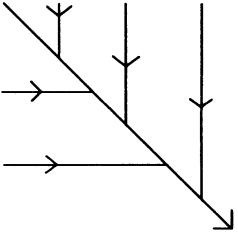
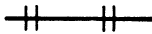
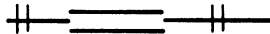
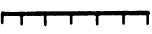
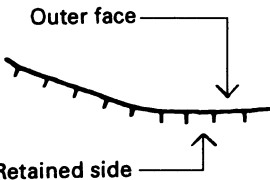
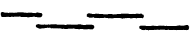
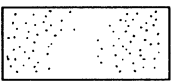
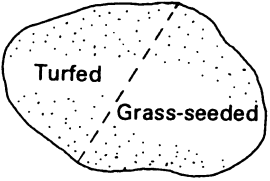
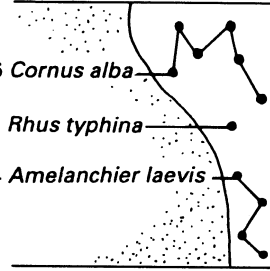
If necessary, the convention (graphical symbol or simplified representation) can be completed by

- text;
- designations or abbreviations explained on the drawing or associated documents;
- complementary additions to conventions in order to communicate further information.

Nonstandardized conventions shall be explained on the drawing.

Reference No.	Element	Convention	Applied example	Comment
3.1	Subdivision of plant beds/grass	— — — — —		Thin dashed line; areas may be hatched or shaded
3.2	Tangent point or point of transition			

Reference No.	Element	Convention	Applied example	Comment
3.3	Existing contour	 or 		Thin continuous or thin dashed line
3.4	Proposed contour			Thick continuous line For 3.3 and 3.4, the numerical value for level may be inserted on the contour line
3.5	No-cut no-fill line			Freehand thin chain line
3.6	Outline of areas to be protected			Thick chain line; area may be hatched or shaded Applied example shows: A = Tree to be protected B = Trunk to be protected
3.7	Outline of existing shrub and woodland areas			Thin continuous irregular line
3.8	Outline of proposed shrub and woodland areas			Thick continuous irregular line
3.9	General area to be removed			Thin dashed line; this symbol is an alternative to ISO 7518

Reference No.	Element	Convention	Applied example	Comment
3.10	Embankment			Thin line (shown only if contours are not used) Top and bottom edges may be indicated by thin continuous lines
3.11	Direction of flow, e.g. land drains/subsurface drains, etc.			Thin continuous line; arrow indicates direction of fall (cf. ISO 4067-6)
3.12	Fence			Thick/thin continuous lines Applied example is a combination of 3.12 and 3.13
3.13	Stile			Thick line
3.14	Retaining wall			Thick/thin continuous lines
3.15	Sheet pile			Thick line
3.16	Grass			May be designated by text instead of shading
3.17	Plant bed			Hard landscape drawings only (see Figure A.2)
3.18	Proposed shrub/plant			Spread may be shown Number of species may be linked together with a thin line and annotated on drawing, or numbered by reference to a schedule For even distribution of large numbers (e.g. ground cover) individual dots are not essential (see Figure A.1)

Reference No.	Element	Convention	Applied example	Comment
3.19	Climber		<i>2 Clematis montana</i> Supporting structure	Species may be linked
3.20	Existing hedge to be retained			Thin irregular line
3.21	Proposed hedge	a) b)		Thick irregular line a) Conventional b) Alternative showing plant positions
3.22	Existing tree			The crown circle is drawn with a thin line and the trunk circle with a thick line Trunk and crown circles shall be drawn approx to scale; size of trunk to be measured as diameter 1 m above ground level
3.23	Proposed tree			The crown circle is drawn with a thick line and the cross with a thin line; circle is not drawn to scale and does not represent the crown at planting or at maturity
3.24	Tree pit			Thick line square border; thin dashed line for diagonals
3.25	Small unit paving			Thin line; pattern is representational only
3.26	Large unit paving			Thin line; pattern is representational only
3.27	Cobbles			Thin line; pattern is representational only
3.28	Hose point			Thick line
3.29	Sign			Extra-thick line; applied example shows sign fixed to two poles

Reference No.	Element	Convention	Applied example	Comment
3.30	Luminaire – any type			Thick line circle; thin line cross
3.31	Luminaire + wall bracket			Thick line circle + bracket; thin line cross
3.32	Pole + arm + luminaire			Thick line circle + arm + pole; thin line cross
3.33	Bollard + low-level luminaire			Thick line circle; thin line cross

4 Schedules

New planting should normally be scheduled.

Planting schedules may be split into trees, shrubs and other plants.

A planting schedule may contain the following information in the sequence listed below:

- name;
- classification/designation;
- root system;
- planting location;
- quantity.

Other information such as height, spread, form, cost, etc. may be included (see Table 1).

Schedules may be prepared on separate sheets or may be included as additional information on the planting plan. If schedules are prepared on one or several sheets, each sheet should have its own title block placed below the schedule.

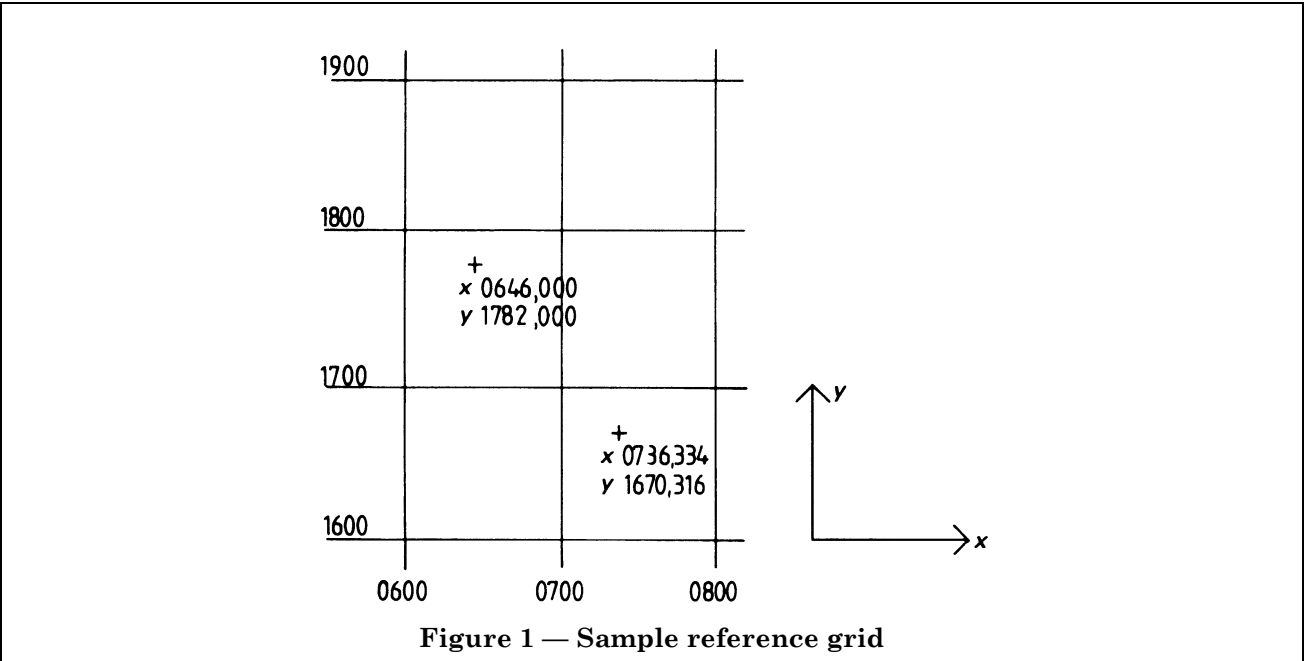
Table 1 — Typical tree-planting schedule

Name	Designation	Height/girth	Root system	Planting location			Quantity	Unit price	Total cost
				A1	A2	A3			
<i>Betula pendula</i> Tristis	Feathered	3,50 m/100 mm	Bare root		2	3	5		
<i>Robinia pseudoacacia</i>	Tall standard		Bare root	3			3		

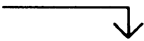
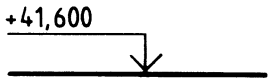
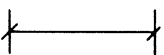
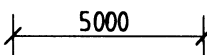
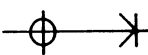
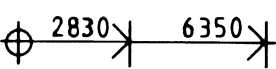
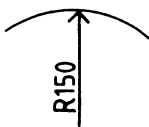
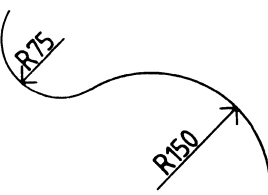
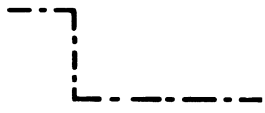
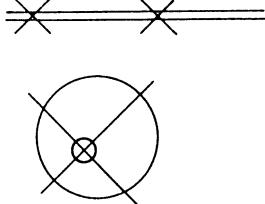
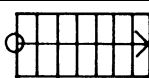
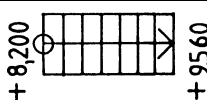
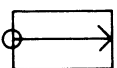
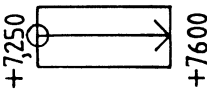
5 Reference grid

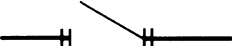
A reference grid, where required for location purposes, should cover the entire site thus enabling all external work to be related to it. The grid intervals shall be chosen to suit the scale of the drawing.

References should be denoted by a cross in the same orientation as the grid and the positions given via two coordinates, each with the same number of digits, *x* (eastward) first and *y* (northward) second (see Figure 1).

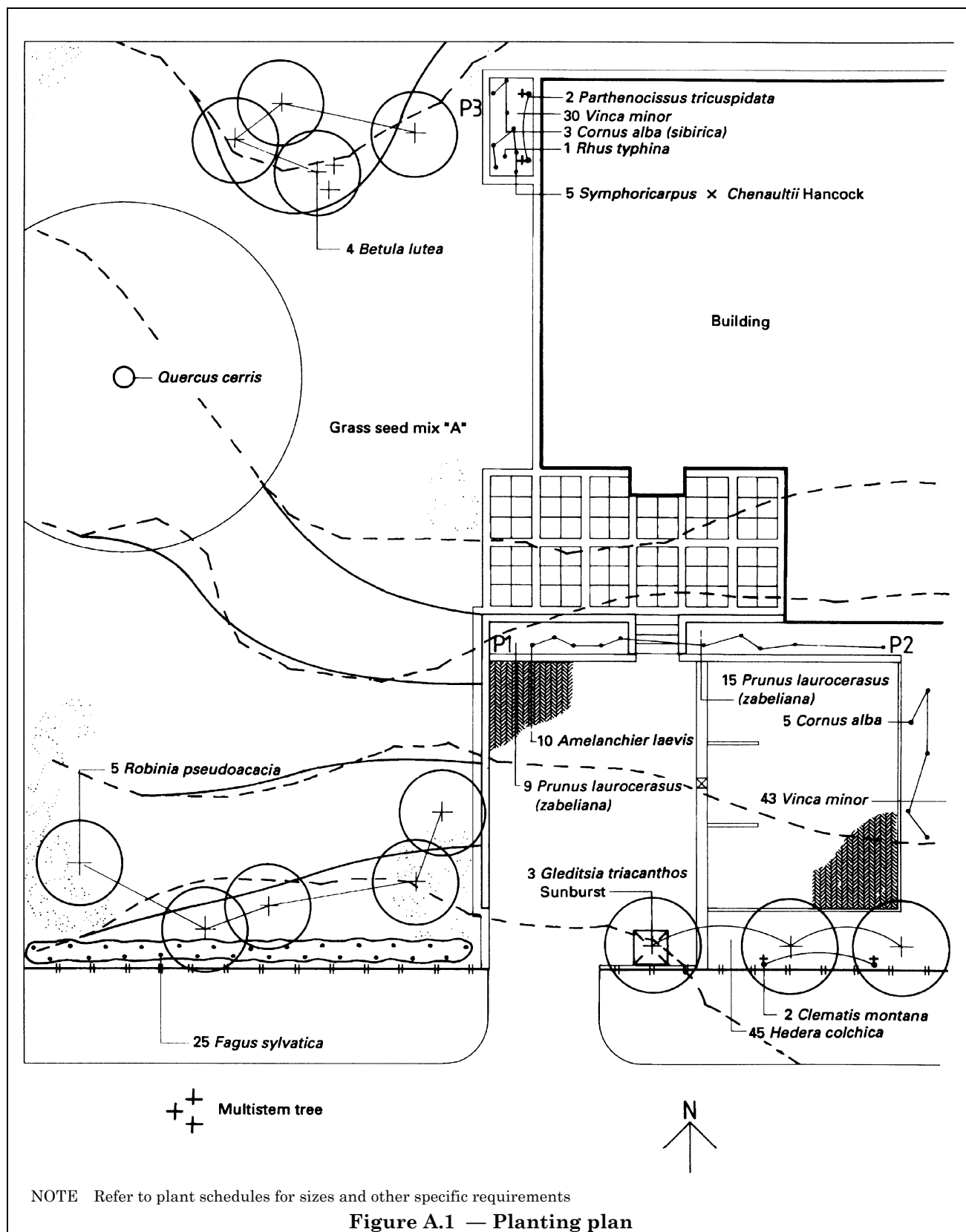


Annex A (informative)**Additional ISO conventions and sample landscape drawings****A.1 Existing ISO conventions relevant to landscape drawing**

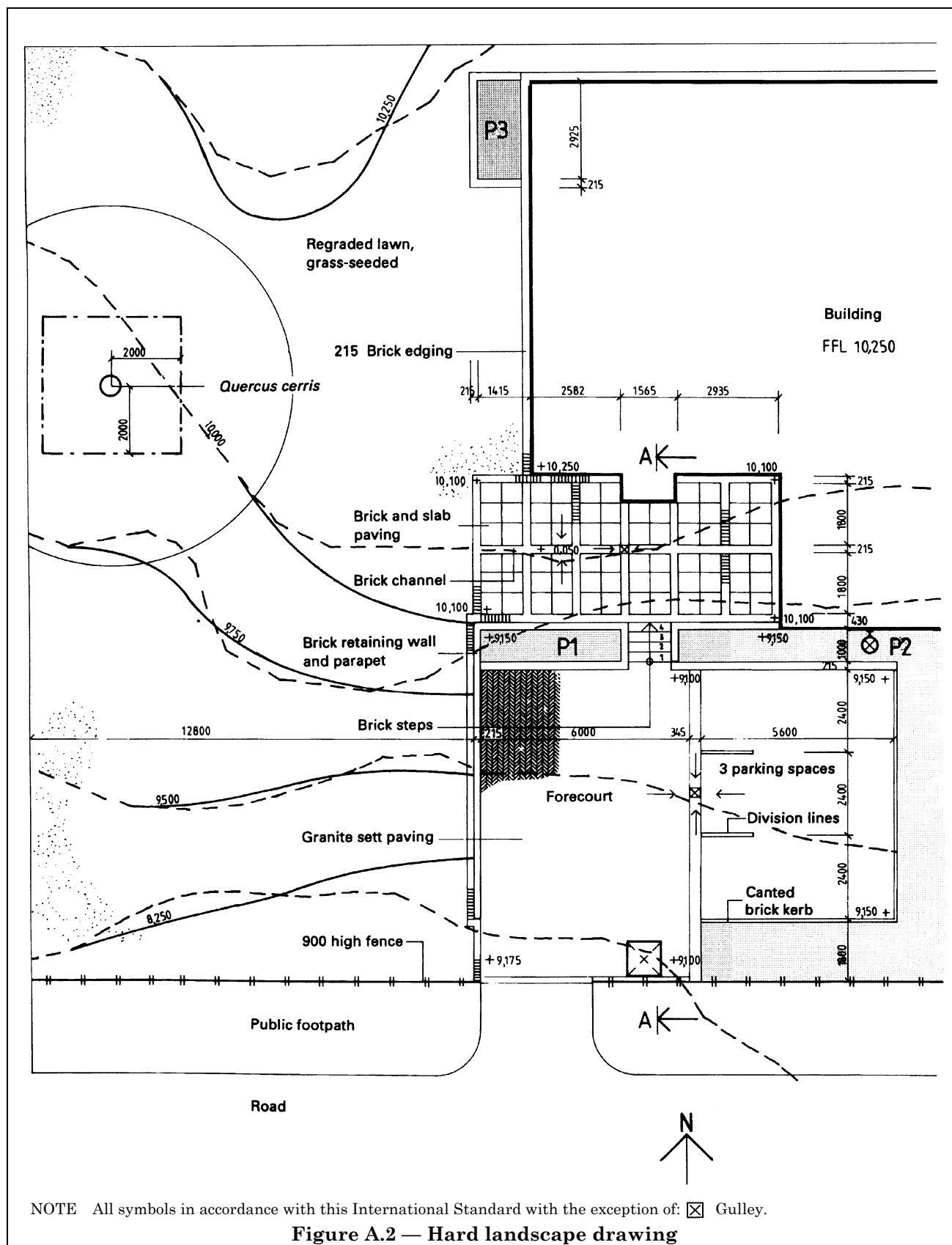
Reference No.	Element	Convention	Applied example	Comment/reference
A.1.1	Original level no longer valid	(+ 0,000)	(+ 2,500)	ISO 129
A.1.2	New level	+ 0,000	+ 3,500	ISO 129
A.1.3	Level on section			ISO 129
A.1.4	Datum point on plan			ISO 129
A.1.5	Single dimension line			ISO 129
A.1.6	Running dimension			ISO 129
A.1.7	Radius dimension			ISO 129
A.1.8	Contract boundary			Extra-thick chain line (ISO 4067-6)
A.1.9	Existing objects to be removed			ISO 7518
A.1.10	Steps/stairs			Arrowhead indicates top riser; top and bottom levels may be indicated, or steps may be numbered upwards with 1 for the first step (ISO 7519)
A.1.11	Ramp			Arrowhead indicates top level; top and bottom levels may be indicated (ISO 7519)

Reference No.	Element	Convention	Applied example	Comment/reference
A.1.12	Direction of fall		1:10 	Slope may be indicated with ratio of inclination (ISO 4067-1)
A.1.13	Door/gate	 or 	Gate, 90°  or Gate, 30° 	Applied examples show gate in fence (ISO 7519)

A.2 Sample planting plan using conventions in this International Standard

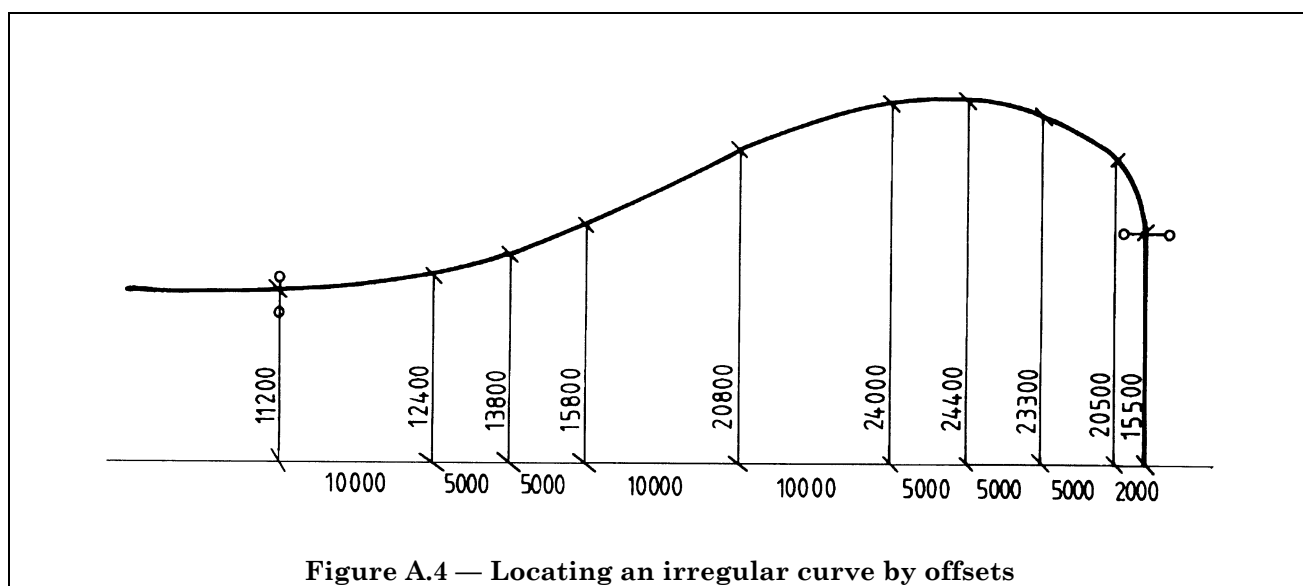
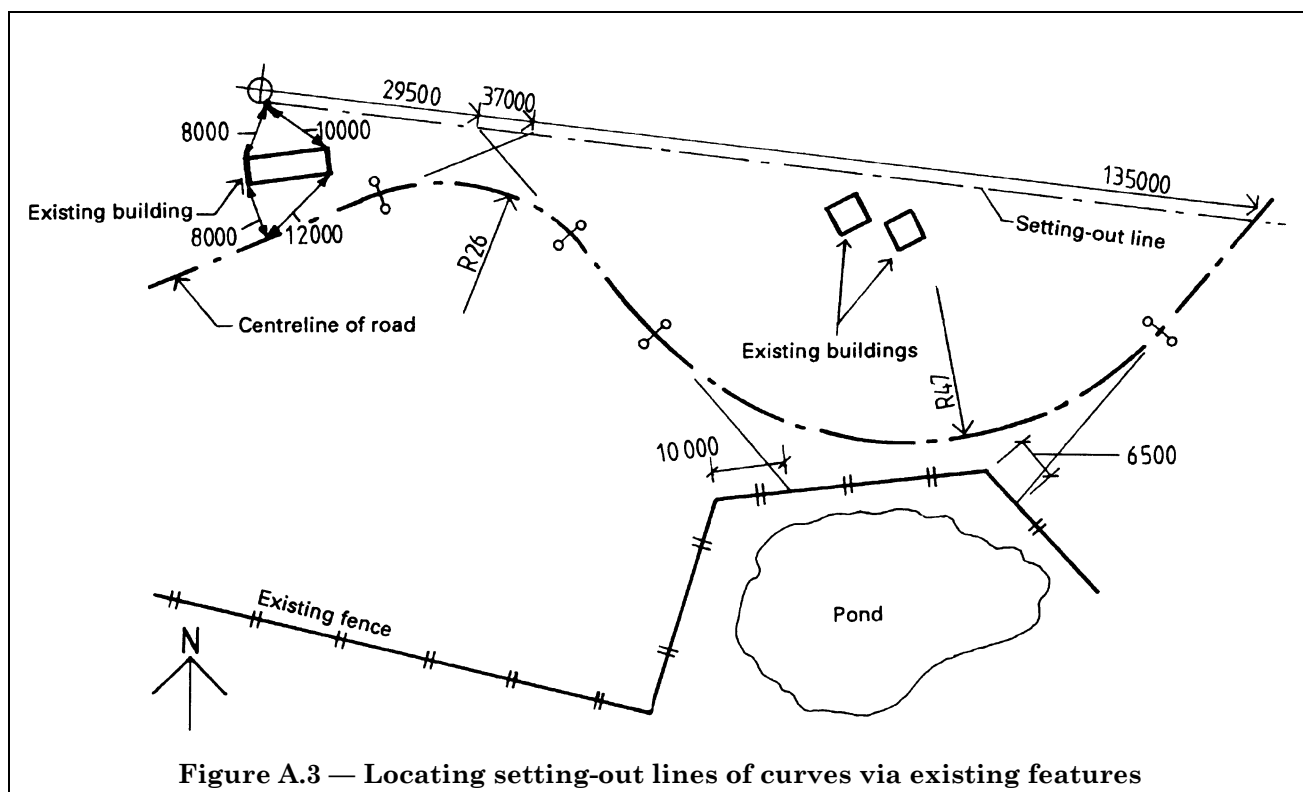


A.3 Sample hard landscape drawing using conventions in this International Standard



A.4 Location of curves

Features having regular or irregular curves shall be drawn precisely on landscape production drawings. Dimensioning shall be limited to that necessary to define the curves. See Figure A.3 and Figure A.4.



Annex B (informative)

Bibliography

- [1] ISO 128:1982, *Technical drawings — General principles of presentation*.
- [2] ISO 129:1985, *Technical drawings — Dimensioning — General principles, definitions, methods of execution and special indications*.
- [3] ISO 3098-1:1974, *Technical drawings — Lettering — Part 1: Currently used characters*.
- [4] ISO 4067-1:1984, *Technical drawings — Installations — Part 1: Graphical symbols for plumbing, heating, ventilation and ducting*.
- [5] ISO 4067-6:1985, *Technical drawings — Installations — Part 6: Graphical symbols for supply water and drainage systems in the ground*.
- [6] ISO 4068:1978, *Building and civil engineering drawings — Reference lines*.
- [7] ISO 4069:1977, *Building and civil engineering drawings — Representation of areas on sections and views — General principles*.
- [8] ISO 5455:1979, *Technical drawings — Scales*.
- [9] ISO 5457:1980, *Technical drawings — Sizes and layout of drawing sheets*.
- [10] ISO 6428:1982, *Technical drawings — Requirements for microcopying*.
- [11] ISO 7200:1984, *Technical drawings — Title blocks*.
- [12] ISO 7518:1983, *Technical drawings — Construction drawings — Simplified representation of demolition and rebuilding*.
- [13] ISO 7519:1991, *Technical drawings — Construction drawings — General principles of presentation for general arrangement and assembly drawings*.
- [14] ISO 8048:1984, *Technical drawings — Construction drawings — Representation of views, sections and cuts*.
- [15] ISO 9431:1990, *Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets*.

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