

Superplan Data® User Guide



Preface

About this user guide

This user guide contains information to help you use and understand Superplan Data®.

This user guide has been checked and validated before issue and every endeavour made to ensure that the contents are accurate. If you find an error or omission, or otherwise wish to make a suggestion as to how this user guide can be improved, please contact:

Superplan Products Team

Room C433
Ordnance Survey
Romsey Road
SOUTHAMPTON
SO16 4GU

or alternatively Sales Information will be pleased to deal with your enquiries:

Sales Information Helpdesk

Phone: 08456 05 05 05
Fax: 023 8079 2615
Email: enquiries@ordsvy.gov.uk

or write to:

Sales Information
Ordnance Survey
Romsey Road
SOUTHAMPTON
SO16 4GU

Liability

Ordnance Survey makes every effort to ensure that data supplied is free from errors and omissions. We will remedy, as soon as reasonably practical, errors and omissions that the customer notifies to us in writing. It is the customer's responsibility to ensure that data ordered is suitable for the intended purpose. We will not be liable to the customer or any other party for any loss, damage, inconvenience or expense resulting from the use of, or reliance upon, the data.

A full description of the terms and conditions of supply and use of Superplan Data is detailed in the *Copyright licence agreement*, which accompanied your purchase.

User guide copyright

This document is © Crown copyright 2001. All rights reserved. Any part of it may be copied for your own business use. Business use is defined as actions related to business decision making or as part of day-to-day operations associated with the running of a business. No part of this document may be copied or incorporated in products, services or publications you generate for onward sale or as free promotional or support material without the prior written permission of Ordnance Survey.

Trademarks

Ordnance Survey, the OS Symbol, Land-Line, Superplan and Superplan Data are registered trademarks of Ordnance Survey, the national mapping agency of Great Britain.

AutoCAD and Autodesk are registered trademarks and DXF is a trademark of Autodesk Inc. MS-DOS and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

PKUNZIP is a registered trademark of PKWARE, Incorporated.

WinZIP is a registered trademark of WinZip Computing, Incorporated.

Apple and Macintosh are registered trademarks of Apple Computer, Inc.

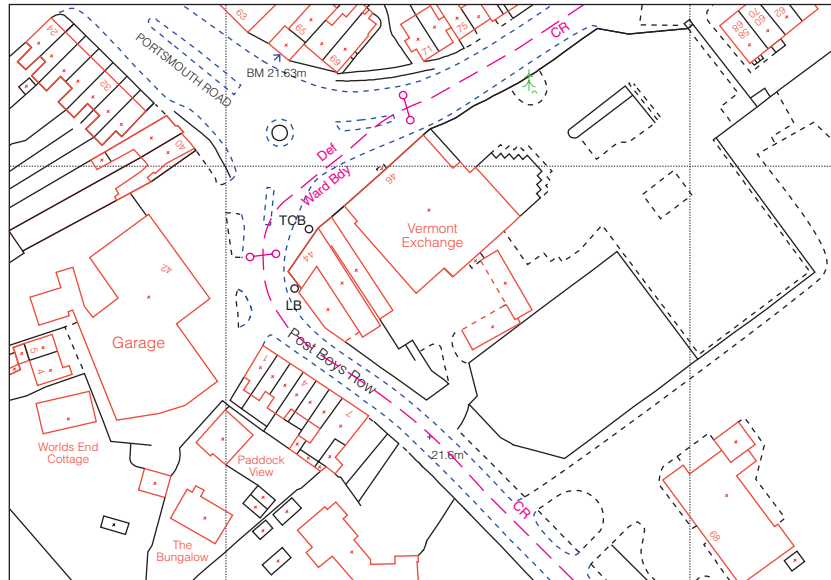
IBM is a registered trademark of IBM Corporation.

Contents

Superplan Data benefits and applications	4	Representation of real-world features	14
Getting started	6	Some basic principles	14
What you need to use Superplan Data	6	Text features	15
Loading Superplan Data into CAD	8	Area features	15
Superplan Data features	9	Slopes and cliffs	16
Coordinates	9	Blocks	18
Levelling and height information	9	Superplan Data layering	21
Ground coverage	10	Feature code hierarchy	22
Best fit clipping	10	Layers list	23
Customer reference title	10	Footnotes and non-map detail layers	26
Printing and plotting from Superplan Data	11	Real-world feature representation	26
Copyright licence	12	Real-world features not represented in	34
Superplan Data accuracy	12	Superplan Data	
Source survey scale	12	Common abbreviations used in Superplan Data	36
Revision	13	Boundary mereing abbreviations	37
Survey accuracy	13	Troubleshooting	38

Superplan Data benefits and applications

Fictitious extract from Superplan Data in an urban area



Superplan Data is designed for computer-aided design (CAD). It is derived from Ordnance Survey's National Topographic Database (NTD), which holds more than 200 million individual features of the British landscape, creating a seamless computer map of Great Britain. Superplan Data features and benefits include:

- Site-centred data means you only pay for the area you need.
- All the detail and accuracy you require from Ordnance Survey large-scale map products.
- Convenience and confidence – see on screen before you buy; or receive quickly by e-mail.
- National availability.
- Nationwide coverage – from city centres to upland moors.
- The latest available survey information included.
- A copyright licence for one year included in the price.
- Compatibility with most popular CAD systems.
- Up to 60 layers for flexibility in application.

Superplan Data has many applications. With the use of appropriate software, Superplan Data can be viewed on screen, manipulated, merged with other drawings and plotted onto paper or film. Typical applications include feasibility studies, project design, planning applications, presentations and reports, materials estimation and location mapping.

Getting started

What you need to use Superplan Data

Hardware

Providing sufficient memory and storage facilities are available there are no specific constraints on hardware that may be used. Superplan Data files vary in volume from less than 0.1 Mb to 13.2 Mb or even more.

Typical storage volumes for a Superplan Data file (uncompressed):

Source area	Ground area covered (metres)	Average volume	Maximum volume
Urban (1:1250 scale)	400 by 400	0.52 Mb	2.11 Mb
	1 000 by 1 000	3.28 Mb	13.2 Mb
Rural (1:2500 scale)	800 by 800	0.38 Mb	1.98 Mb
	1 500 by 1 500	1.35 Mb	6.98 Mb
Moorland (1:10 000 scale)	4 000 by 4 000	0.51 Mb	0.53 Mb
	10 000 by 10 000	3.20 Mb	11.0 Mb

Software

Superplan Data is supplied in Data Exchange Format (DXF™) Level 1. It is fully compatible with AutoCAD® release 12 onwards. Superplan Data is inert data and does not include software. To use it you will need software that can read drawings in DXF, for example most CAD packages. DXF is a data transfer format designed for use with CAD software. It conforms to the National Economic Development Office (NEDO) standard for the exchange of two-dimensional drawings in the construction industry. Please check with your CAD supplier if you are unsure whether your system is compatible with Superplan Data.

The drawing reference number

Every Superplan Data map has a unique drawing reference number. This should be quoted in any correspondence relating to your Superplan Data. Drawing reference numbers are eight characters in length, for example, 18000234, and are drawn on layer G8030575.

File names and output file formats

Superplan Data file names are always the same as the unique drawing reference number and are shown on each disk, CD-ROM or email. The Superplan Data file is always accompanied by a *readme* file called readme.txt. This contains technical information and product developments since this user guide was published.

Uncompressed files

- Superplan Data files less than about 1.2 Mb in size are supplied as plain DXF drawings. The file name is the drawing reference number suffixed by .dxf, for example, 18000234.dxf.

Note: All files supplied on CD-ROM are **uncompressed**, whatever their size. Files delivered via email can be supplied compressed or uncompressed.

Compressed files

- Superplan Data files supplied by email or floppy disk may be too large to be supplied uncompressed. If so, the file name is the drawing reference number suffixed by .zip, for example, 18000234.zip.
- Before loading into CAD, you will need to decompress the file to recreate the original DXF file; the floppy disk contains PKUNZIP.EXE for this purpose. The licence fee has been prepaid by Ordnance Survey for your convenience and each disk carries a PKUNZIP® label to this effect.

Note: Compressed files are not supplied on CD-ROM.

Loading Superplan Data into CAD

The README.TXT file supplied with your Superplan Data contains information on how to load the data into CAD.

Superplan Data features

Coordinates

When buying Superplan Data you can specify one of two coordinate systems, that is, local or National Grid coordinates. National Grid (NG) coordinates are normally supplied if you do not state a preference.

Option: local coordinates

The coordinates of each map feature are expressed in metres relative to the map origin (0,0) at the south-west corner of the map. Superplan Data maps with local coordinates are used mainly by those who do not need to relate their Superplan Data spatially to other maps, surveys or drawings based on the National Grid coordinate system.

Option: NG coordinates

The coordinates of each map feature are expressed in metres relative to the origin of the National Grid (a point west of the Isles of Scilly). Superplan Data maps with NG coordinates can easily be spatially related to other surveys, drawings or Ordnance Survey products.

Levelling and height information

Superplan Data is two-dimensional, that is, both the x (easting) and y (northing) coordinate values have a value set to provide the information in plan view. The z (vertical) coordinate value is not set to any value. The z coordinate value of 0.0 can be customised, should you wish to generate a third dimension. The only height information given appears as text entities associated with heightened points, that is bench marks and spot heights. Altitudes of bench marks and spot heights are given in metres above datum (Newlyn Datum for mainland Great Britain). Bench mark lists containing more extensive information can be purchased from Superplan Agents.

Ground coverage

Superplan Data maps cover square or rectangular areas which are aligned to the NG unless they are provided as *best fit clipping* (see below). The minimum ground area covered is 4 hectares.

The maximum ground area covered by any one Superplan Data is 250 hectares in the case of 1:1250 scale source data and 1 000 hectares in the case of 1:2500 scale source data. Where the source data is 1:10 000 scale, then the maximum area covered by the Superplan Data varies.

Where more than one scale of source data is present, the maximum ground area limit for the scale forming the larger ground area applies. If 1:10 000 scale data is present, 80% of the ground area must be 1:10 000 scale data before the limit of 22 500 hectares for 1:10 000 scale data applies. Further information is available in *Superplan Data Technical information leaflet* available to view or download from Ordnance Survey website at www.ordnancesurvey.co.uk

Best fit clipping

Best fit clipping allows you to define your site with a rectangular box and *angle* this box, ensuring you pay for the smallest amount of data required to cover your desired site. There may be an additional service charge to tailor the data in this way.

Customer reference title

When buying Superplan Data, you have the option of specifying text up to 40 characters in length, for example, a site name or project reference. The *Customer reference title* appears as a footnote in the drawing on layer G8030574.

Printing and plotting from Superplan Data

Superplan Data is *scale-free* until you use the *print/plot* option within a CAD session. At this stage you choose to produce a hard copy print or plot at a scale of your choice. This is done by inputting a value for both the *plotted* units and the *drawing units* as a ratio. Where possible, set the drawing units in CAD to metres as this will then be the same as the desired scale, for example, for a 1:1000 scale plot, input a value of 1 for the *plotted units* and a value of 1 000 for the *drawing units*.

Note: Many CAD packages use drawing units set to millimetres, whereas Superplan Data uses drawing units in metres. The use of Superplan Data in a CAD session which is set to drawing units in millimetres will result in an apparent reduction of 1 000 units. A typical example is outlined below:

Desired plot scale	Plotted units (millimetres)	Drawing units (metres)
1:500	2	1
1:1000	1	1
1:5000	1	5

Copyright licence

The price of Superplan Data includes a 12-months copyright licence from the date of supply. Details of the copyright arrangements can be found in the *Superplan Data Copyright licence agreement* accompanying your purchase. If you have any questions or need more information on general copyright matters, please contact:

Copyright Licensing
Ordnance Survey
Romsey Road
SOUTHAMPTON
SO16 4GU
Phone: 023 8079 2913
Fax: 023 8079 2535

Superplan Data accuracy

Source survey scale

Superplan Data is a digital map and is therefore *scale-free*, in that it can be viewed on screen or plotted at almost any factor of enlargement or reduction. A suggested output within 25% of a map's source scale should allow all data to be sensibly displayed or plotted. Nevertheless, it is important to remember that all Superplan Data is derived from one or more of the three basic scales of large-scale mapping; and that it is this which largely determines the specification and accuracy of the map:

- Urban: (1:1250 scale source survey). Major towns and cities.
- Rural: (1:2500 scale source survey). Smaller towns, villages and developed rural areas.
- Moorland: (1:10 000 scale source survey). Mountains, moorland and estuarine areas.

Your Superplan Agent can advise you of the source survey scale for any particular area.

Revision

Superplan Data is produced from the latest mapping held on the NTD. It incorporates all map detail which has been surveyed, digitised and databanked up to a few days before the date of purchase.

Ordnance Survey constantly updates its mapping. Superplan Data is designed for project work. If you need to use mapping of the same area over an extended period, consider using one of the other products available from Ordnance Survey, such as Land-Line® or Superplan® plots. Consult your Superplan Agent for more information.

Changes to real-world features are categorised by Ordnance Survey and a map revision policy exists for each category of change. Further details are available from your Superplan Agent.

Survey accuracy

	Absolute accuracy, that is, compared with the NG Root mean square error	Relative accuracy, that is, distances between points taken from the map Expected standard error
Urban	<± 0.5 metres	<± 0.4 metres
Rural	*Either <± 1.1 or <± 2.8 metres	*Either <± 0.9 or <± 1.2 metres
Moorland	<± 4.1 metres	<± 3.5 metres

* Accuracy depends on survey methods used.

Note: Certain features, for example, man-made slopes and vegetation, are surveyed to lower accuracies.

Representation of real-world features

Some basic principles

This is a summary of the basic principles which apply to the representation of real-world features in Superplan Data.

Superplan Data is vector data. Map detail such as buildings, roads and rivers are represented as a series of lines and points (sometimes referred to as links and nodes). A feature may be a name, a point or a line or polyline (or a series of lines forming a coherent unit). Each feature is free-standing.

- Real-world features which fall within the product specification are surveyed in true plan position within the limitations imposed by the scale of survey.
- Features too small to be surveyed at scale are shown by a point symbol.
- Detail is usually shown by its outline at ground surface level. Where more than one surface level exists, ground surface level is taken to be the upper level of communication. This applies especially to bridges, complex shopping centres and so on where the uppermost level is usually shown and actual ground level may be represented as *underground*.
- The nature of surface vegetation is shown except for land under cultivation, including developed pasture. Where there is no vegetation, the character of the bare ground (for example, rock) is indicated.
- Overhead detail is shown if the size and character constitutes a useful map feature.
- Underground detail is not shown, except for communications in tunnels and specified detail in complex multilevel structures.
- The names of all features, objects and areas within the product specification are shown.

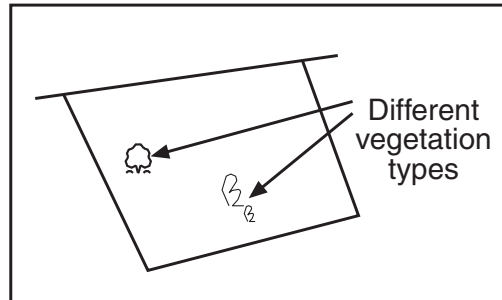
Text features

Text is applied to a map to name or to describe the features that the map portrays. Descriptive and distinctive names are treated as free-standing entities in DXF. To facilitate customisation of the map, Superplan Data distinguishes between name types, for example, road names and water names. Each name type is placed in a separate layer. There is no text in Superplan Data outside the neat line (map frame), apart from footnotes, grid values and so on.

Area features

In Superplan Data, features which might be thought of as area features are treated as linear outlines. For example, a building is treated as a polyline outline in the building outline layer (G8030001).

Superplan Data does not show the nature of vegetation and certain other area features by fill patterns. Instead, point features called *seeds* are used. Each seed represents one element of land cover in each area; complex cover is recorded by multiple seeds.



Generally, it can be assumed that the land cover type indicated by the seed(s) extends out to a notional polygon made up of the closest polylines surrounding the seed(s). The bounding polygon area may or may not be completely formed. A seeded area which is crossed by any of the following is treated as a single area:

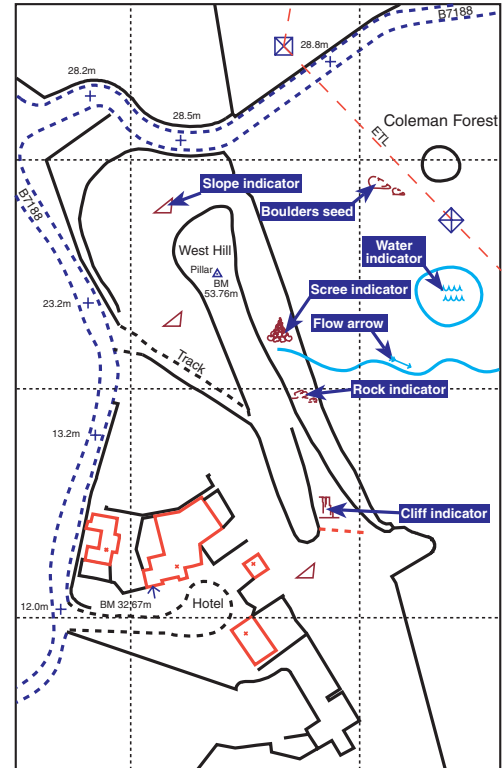
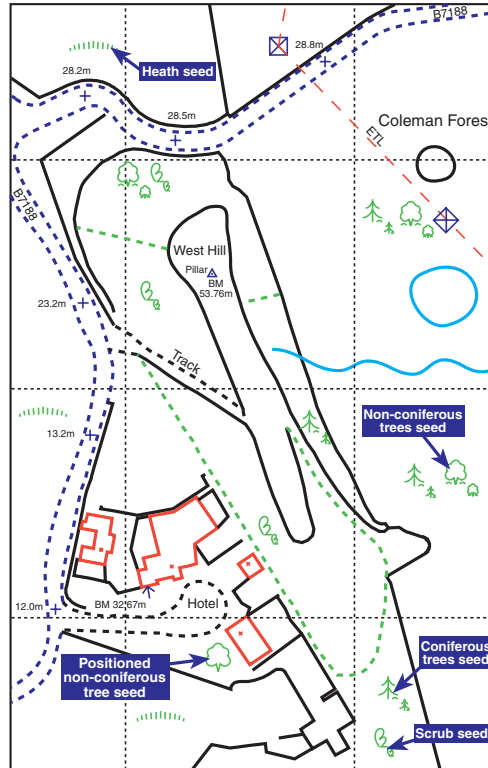
- underground detail (G8030033);
- overhead detail (G8030043);
- cliff and slope limits (G8030374, G8030375, G8030376); or
- minor detail (G8030052).

Note: Where a seeded area is cut by the edge of the site-centred Superplan Data map it is possible for the seed to fall outside the map and so be missing from the data. It is recommended that customers are careful to define the extent of the Superplan Data so as to include the whole of all areas in which they have an interest.

Slopes and cliffs













The top and bottom of slopes and cliffs are shown by normal polylines, but on different layers. Each slope and cliff area contains a seed.













Fictitious Superplan Data showing landscape features, including vegetation, and slopes and cliff










Blocks

The blocks section of the Superplan Data file contains map symbol definitions of the following blocks. Most CAD systems enable you to insert them using the AutoCAD INSERT BLOCK command or its equivalent.

Ordnance Survey symbol	Block name	Example
Point feature	CIRCLE	
Boundary post or stone	BDYPOST	
Boundary mereing symbol	BDYMEREI	
Triangulation point	TRIGPT	
Bench mark	BENCHMK	
Pylon	PYLON	
Roofed building or glasshouse indicator	SEED	
Flow arrow	FLARROW	
Spot height	CROSS	
Copyright	COPY	
Boulders	BOULDS	
Boulders (scattered)	BOULDSCTS	

Ordnance Survey symbol	Block name	Example
Positioned coniferous tree	CTREE	
Coniferous trees	CONS	
Coniferous trees (scattered)	CONSCTS	
Coppice or osiers	COPPS	
Marsh, saltmarsh or reeds	MARSHS	
Positioned non-coniferous tree	NCTREE	
Non-coniferous trees	NCONIFS	
Non-coniferous trees (scattered)	NCONSCTS	
Orchard	ORCHARDS	
Heath	HEATHS	
Rock	ROCKS	
Rock (scattered)	ROCKSCTS	

Ordinance Survey symbol	Block name	Example
Rough grassland	ROUGHGS	
Scrub	SCRUBS	
Scree	SCREES	
Upper level of communication indicator	ULCOMMS	
Cliff indicator	CLIFFS	
Slope indicator	SLOPES	
Water indicator	WATERS	

Superplan Data layering

Superplan Data maps contain up to 60 layers, listed on the following pages. Superplan Data complies with *Layer naming convention for CAD in the construction industry version 2*, which is based upon the guidelines laid down in BS 1192: Part 5. In any one Superplan Data map you are most unlikely to find map features in every layer, simply because of the distribution of real-world features. Real-world features such as buildings are shown in Superplan Data and are assigned to the relevant layer. Each layer therefore represents a logical grouping of cartographically similar real-world features. Additionally, the layers themselves can be grouped by theme. For example, the three non-tidal water feature related layers are *water detail* (G8030059), *water text* (G8031010) and *flow arrow* (G8030069).

The layering system allows the map to be customised. Unwanted layers can be switched off for clarity or faster working. Alternatively, selected layer themes can be used. For example, to display the map with only water detail shown it would be appropriate to switch all map layers other than G8030059, G8031010 and G8030069 off.

Your CAD system will only reveal the layer code, for example G8030001. For the full description of the layer details it is necessary to refer to the layers list on [page 23](#).

Feature code hierarchy

A hierarchy exists so that a line that bounds two or more kinds of real-world feature can be assigned to a single layer. An example is the east wall of the Houses of Parliament in London, which is a building that also partly forms the bank of the tidal River Thames. This wall is represented on layer *mean high water* (G8030071), rather than *building outline* (G8030001). The following hierarchy (with one being the highest) is used to determine the appropriate layer:

- 1 Mean high water (G8030071).
- 2 Buildings (G8030001 or G8030004).
- 3 Water detail (G8030059).
- 4 Road (public) edge of metalling (G8030021).
- 5 Other detail.
- 6 Mean low water (G8030072).
- 7 Vegetation and landform limits (G8030035 and G8030036).

Layers list

The table below lists all layers which can be found in Superplan Data. The BS 1192: Part 5 layers are in numerical order. Also shown for each layer are a description (common name), entity type, line style (for lines and polylines), block name (where applicable) and colour. A pictorial representation of each block is shown on [pages 18–20](#). The colours shown are default and may vary according to your system configuration.

Layer	Description	Entity type	Line style	Block name	Colour
G8030001	Building outline	POLYLINE	CONTINUOUS		red
G8030004	Building outline (overhead)	POLYLINE	DASHED		red
G8030007	Civil parish or community boundary	POLYLINE	CONTINUOUS		magenta
G8030008	District, London borough or unitary authority boundary	POLYLINE	CONTINUOUS		magenta
G8030009	County boundary	POLYLINE	CONTINUOUS		magenta
G8030010	Electoral division or ward boundary	POLYLINE	CONTINUOUS		magenta
G8030011	Boundary post or stone	INSERT	CONTINUOUS	BDYPOST	magenta
G8030013	Boundary mereing symbol	INSERT	CONTINUOUS	BDYMEREI	magenta
G8030014	Railway (narrow gauge)	POLYLINE	CONTINUOUS		blue
G8030015	Railway (standard gauge)	POLYLINE	CONTINUOUS		blue
G8030021	Road (public) edge of metalling	POLYLINE	DASHED		blue
G8030025	Triangulation point	INSERT	CONTINUOUS	TRIGPT	blue
G8030026	Bench mark	INSERT	CONTINUOUS	BENCHMK	blue
G8030027	Spot height	INSERT	CONTINUOUS	CROSS	blue
G8030030	General line or minor building detail	POLYLINE	CONTINUOUS		white
G8030032	General ground level or minor overhead detail	POLYLINE	DASHED		white
G8030033	Underground detail or course of antiquity	POLYLINE	DASHED X2		blue
G8030035	Vegetation or landform limit (secondary)	POLYLINE	DASHED		green

Layer	Description	Entity type	Line style	Block name	Colour
G8030036	Vegetation or landform limit	POLYLINE	DASHED		green
G8030043	Overhead detail	POLYLINE	DASHED x2		red
G8030049	Pylon	INSERT	CONTINUOUS	PYLON	blue
G8030052	Minor detail	POLYLINE	CONTINUOUS		white
G8030057	Point feature	INSERT	CONTINUOUS	CIRCLE	white
G8030059	Water detail	POLYLINE	CONTINUOUS		cyan
G8030069	Flow arrow	INSERT	CONTINUOUS	FLARROW	cyan
G8030071	Mean high water (springs)	POLYLINE	CONTINUOUS		cyan
G8030072	Mean low water (springs)	POLYLINE	CONTINUOUS		cyan
G8030079	European, parliamentary or assembly constituency boundary	POLYLINE	CONTINUOUS		magenta
G8030321	Roofed building indicator	INSERT	CONTINUOUS	SEED	red
G8030323	Glasshouse indicator	INSERT	CONTINUOUS	SEED	white
G8030372	Positioned coniferous tree	INSERT	CONTINUOUS	CTREE	green
G8030373	Positioned non-coniferous tree	INSERT	CONTINUOUS	NCTREE	green
G8030374	Top of slope	POLYLINE	CONTINUOUS		red
G8030375	Top of cliff	POLYLINE	CONTINUOUS		red
G8030376	Bottom of slope or cliff	POLYLINE	DASHED		brown
G8030377	Boulders	INSERT	CONTINUOUS	BOULDS	brown
G8030378	Boulders (scattered)	INSERT	CONTINUOUS	BOULDSCTS	brown
G8030379	Coniferous trees	INSERT	CONTINUOUS	CONS	green
G8030380	Coniferous trees (scattered)	INSERT	CONTINUOUS	CONSCTS	green
G8030381	Coppice or osiers	INSERT	CONTINUOUS	COPPS	green
G8030382	Marsh, saltmarsh or reeds	INSERT	CONTINUOUS	MARSHS	green
G8030384	Non-coniferous trees	INSERT	CONTINUOUS	NCONIFS	green
G8030385	Non-coniferous trees (scattered)	INSERT	CONTINUOUS	NCONSCTS	green

Layer	Description	Entity type	Line style	Block name	Colour
G8030386	Orchard	INSERT	CONTINUOUS	ORCHARDS	green
G8030387	Heath	INSERT	CONTINUOUS	HEATHS	green
G8030388	Rock	INSERT	CONTINUOUS	ROCKS	brown
G8030389	Rock (scattered)	INSERT	CONTINUOUS	ROCKSCTS	brown
G8030390	Rough grassland	INSERT	CONTINUOUS	ROUGHGS	green
G8030392	Scrub	INSERT	CONTINUOUS	SCRUBS	green
G8030395	Upper level of communication indicator	INSERT	CONTINUOUS	ULCOMMS	magenta
G8030396	Cliff indicator	INSERT	CONTINUOUS	CLIFFS	brown
G8030397	Slope indicator	INSERT	CONTINUOUS	SLOPES	brown
G8030400	Water indicator	INSERT	CONTINUOUS	WATERS	cyan
G8030570	Copyright symbol	INSERT	CONTINUOUS	COPY	white
G8030571	Footnotes, scale bar, logo, and so on	TEXT			white
G8030572	Internal grid lines and values	LINE/TEXT	DOT		white
G8030573	Neat line and corner values	LINE/TEXT	CONTINUOUS		white
G8030574	Customer reference title	TEXT			white
G8030575	Drawing reference number	TEXT			white
G8031000	Road name or number	TEXT			white
G8031005	Boundary text	TEXT			magenta
G8031006	House number or building name	TEXT			red
G8031009	Miscellaneous text	TEXT			white
G8031010	Water text	TEXT			cyan
G8031013	Land parcel number	TEXT			green
G8031210	Scree	INSERT		SCREES	brown
G8031211	Positioned boulder	INSERT		BOULDS	brown
G8031212	Ridge or rock line	POLYLINE	CONTINUOUS		red

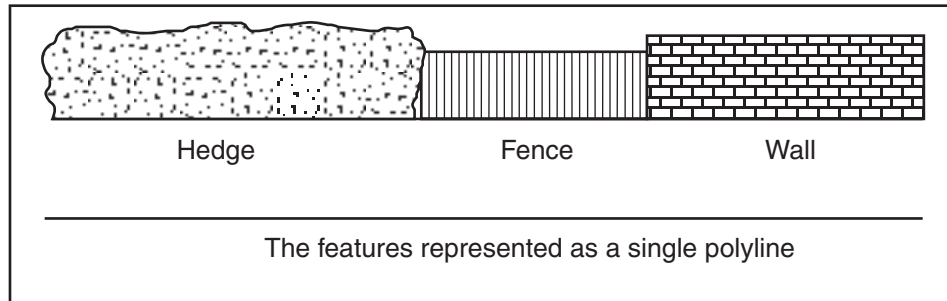
Footnotes and non-map detail layers

Superplan Data contains a number of layers which are allocated to items which are not strictly part of the map. These layers are available for display and plotting from Superplan Data. Items in these layers (also shown in the layers list on previous pages) are:

- Copyright symbol (G8030570)
- Footnotes, scale bar, logo and so on. (G8030571)
- Internal grid lines and values (G8030572)
- Neat line and corner values (G8030573)
- Customer reference title (G8030574)
- Drawing reference number (G8030575)

Real-world feature representation

A single map feature can represent more than one real-world object. For example, a polyline on layer G8030030 may represent a hedge, a fence or a wall.



The following table lists real-world features usually represented on each layer. The right-hand column has useful notes and major exceptions. The list of real-world features is a guide only and is not exhaustive. It is not a complete definition of the surveying and digitising specification for Superplan Data. Exceptions to the list apply – for example, larger waterfalls are depicted on the cliff layers, not layer G8030030. For some types of feature, depiction rules vary between source survey scales.

Layer	Real-world features	Useful notes and exceptions
G8030001	Building outlines Internal building divisions	The outlines of buildings under 50 m ² (except blocks of garages) are on layer G8030030 or layer G8030032. Some divisions between buildings may also be on layers G8030004 or G8030030.
G8030004	Overhead building outlines	Used for the outline of open-sided buildings, also used for internal building divisions which cannot be surveyed from the outside.
G8030007	Civil parish boundary, community boundary, Inner Temple boundary or Middle Temple boundary	
G8030008	District boundary, London borough boundary, Metropolitan district boundary or unitary authority boundary	
G8030009	County boundary or County of the City of London boundary	
G8030010	Electoral division boundary or ward boundary	
G8030011	Boundary post, stone or marker	
G8030013	Boundary mereing change symbol	
G8030014	Narrow gauge railway track	Used for railway and tramway lines smaller than standard gauge.
G8030015	Standard gauge railway track	Each rail is shown by a separate polyline.

Layer	Real-world features	Useful notes and exceptions
G8030021	Edge of road metalling	The limit of public road surface where not defined by a solid feature such as a building. Buried and surface blocks are not shown.
G8030025	Triangulation station	The symbol is not shown on triangulation pillars.
G8030026	Bench mark	
G8030027	Spot height	
G8030030	Fence	Missing or open gates are shown as if closed. Centre line of roots is shown.
	Hedge	
	Bank (linear)	
	Wall	Thick walls are shown by a double polyline.
	Antiquity above ground level	
	Aqueduct, pier or viaduct	
	Breakwater or groyne	
	Bridge	Detail below bridges is not normally shown.
	Burial ground, cemetery or graveyard	
	Cairn	
	Chimney	Only those causing an obstruction at ground level are shown.
	Cooling tower	
	Internal building divisions	The majority of divisions between buildings are on layer G8030001. Some may also be on G8030004.
	Lock gate	
	Minor building outline	
	Retarder (railway)	
	Ruined building	Defined as a building partly or wholly de-roofed and in decay. Ruins do not carry a roof seed.

Layer	Real-world features	Useful notes and exceptions
G8030030 (continued)	Sloping masonry, wall	Settling tank, sludge bed, slurry pit, tailing lagoon, filter bed.
	Solid objects	These do not carry a roof indicator.
	TV mast	
	Watercress bed (man-made)	
	Waterfall, weir	
G8030032	<i>This layer includes many linear aspects of the landscape that do not present an obstacle to a pedestrian.</i>	
	Airfield identification mark	
	Antiquity at ground level	For example, hill figure outline.
	Baulk	
	Broken bank, hedge, wall or fence	
	Covered passageway (open-sided)	
	Ferry or ford	
	Level crossing	
	Minor overhead building outline	
	Normal tidal limit	
	Path (unmade)	The centre line only is shown.
	Path and pavement	The limit of its surface where not defined by a solid feature such as a building.
	Permanent way (railway)	
	Ramp	
	Range firing point	
	Signal bridge, gantry, square	
	Towing path	
	Track	
	Turntable (road), weighbridge	

Layer	Real-world features	Useful notes and exceptions
G8030033	Antiquity (course of) Detail below upper level of through public communication Railway bridge abutments Subway, tunnel, underpass alignment	In complex multilevel structures. No other detail is shown within. Alignments are approximate.
G8030035	Areas of scattered trees, rock, boulders Boulders, dunes, mud and rock (small areas and areas on foreshore) Changes of classifications within vegetated areas Limits of vegetation and surface features in: public parks, golf courses, cemeteries, works, roads, railways, residential properties, disused pits, quarries, and so on Smaller clearings in woods	
G8030036	Boulders, dunes, mud and rock (larger inland areas) Coastal slope Division in named wood Firebreak, ride or linear clearing in woods Pit, quarry or opencast workings Refuse tip, spoil heap or slag heap Vegetation limits Waterfall	

Layer	Real-world features	Useful notes and exceptions
G8030043	<ul style="list-style-type: none"> Aerial ropeway Electricity transmission lines Pipeline (suspended) Ski lifts, tows Telephone line 	<p>Only shown in sparsely populated areas where there is little surveyable detail.</p>
G8030049	<ul style="list-style-type: none"> Electricity pylon Flare stack or lighting tower Radio mast 	
G8030052	<ul style="list-style-type: none"> Archway symbol Buffer, slip or switch (railway) Culvert bar Moveable greenhouse and travelling crane rails 	<p>Shown as diagonal lines across the archway</p> <p>Ends of the rail pairs are joined by a polyline on layer G8030032.</p>
G8030057	<ul style="list-style-type: none"> Pipeline (ground level) Step treads Antiquity point feature Bollard or capstan Crane Flagstaff, post, pillar, pole or stone Fountain or drinking fountain Royal Mail letter box or pillar box Memorial, monument, statue, sundial Milestone post, kilometre post Mooring post, dolphin Navigational light, beacon, perch or pilot beacon 	<p>For example, a standing stone</p> <p>Shown except when indoors or when built into a post office.</p> <p>Large objects shown to scale on G8030030.</p>

Layer	Real-world features	Useful notes and exceptions
G8030057 (continued)	Pump or tap Rescue kit or post Road guide post Runway approach light Signal light, post or water point (railway) Spring or well Swallow hole, pothole or cave Telephone call box, post or pillar Wind pump, tee or sock	Only isolated <i>finger posts</i> shown. Shown outside airfield perimeter only. Not shown when very numerous.
G8030059	Bank of wider drain, canal, stream or river Centre line of narrow drain or stream Basin, dock, lock or moat (water filled) Shore of lake, loch, pond or reservoir	Shows the direction of water flow. Mean high water springs in Scotland. Mean low water springs in Scotland.
G8030069	Flow arrow	Shows the direction of water flow.
G8030071	Mean high water	Mean high water springs in Scotland.
G8030072	Mean low water	Mean low water springs in Scotland.
G8030079	Borough constituency boundary, burgh constituency boundary, county constituency boundary or European parliamentary constituency boundary	Not applied to greenhouses in private gardens or conservatories.
G8030321	Roofed area (seed)	
G8030323	Glasshouse (seed)	

Layer

G8030372

Real-world features

Cartographically-positioned coniferous tree
 Coniferous tree of historical interest or a prominent landmark
 Coniferous tree in named row, avenue or group
 Single named coniferous tree related to an administrative boundary

Useful notes and exceptions

Generally, a *cartographically-positioned* tree is an individual tree surveyed under superseded specifications

G8030373

Non-coniferous trees as per layer G8030372

G8030374

Top limit of man-made slope landform

G8030375

Top limit of cliff landform

G8030376

Bottom limit of man-made slope or cliff landform

G8030377

Area of boulders (seed)

G8030378

Area of scattered boulders (seed)

G8030379

Area of coniferous trees (seed)

G8030380

Area of scattered coniferous trees (seed)

Trees over 30 m apart.

G8030381

Area of coppice or osiers (seed)

G8030382

Area of marsh, saltmarsh or reeds (seed)

G8030384

Area of non-coniferous trees (seed)

G8030385

Area of scattered non-coniferous trees (seed)

Trees over 30 m apart.

G8030386

Area of orchard (seed)

G8030387

Area of heath (seed)

G8030388

Area of rock (seed)

G8030389

Area of scattered rock (seed)

G8030390

Area of rough grassland, bracken (seed)

G8030392

Area of scrub (seed)

G8030395

Area of upper level of through public communication (seed)

Shown only in complex multilevel structures.

G8030396

Area of cliff (seed)

Layer	Real-world features	Useful notes and exceptions
G8030397	Area of man-made slope (seed)	
G8030400	Area of water, lake, loch, pond, stream, drain, river, reservoir or water below mean low water level (seed)	
G8031210	Area of scree (seed)	
G8031211	Positioned boulder	
G8031212	Ridge, rock strata line	

Real-world features not represented in Superplan Data

For your information the following list summarises the main real-world features not normally shown in Superplan Data. This relates mainly to the specification as used by Ordnance Survey field surveyors when capturing the information in digital form. Exceptions apply.

Real-world feature

Rights of way

Non-permanent ground features

Buildings below a minimum size

Internal divisions in buildings
and detail under roofs

Small juts, porches and so on, on buildings

House numbers

Detail under bridges

Detail under elevated roads

Detail in private gardens

Telephone lines and poles

Notes

Rights of way are not identified in Superplan Data. The representation of a road, track or path is no evidence of a right of way.

Detail which it is reasonable to assume will remain in position for less than 10 years.

Not captured in the data.

Not captured in the data.

Not captured in the data.

Not shown in 1:10 000 scale data.

Railway bridge abutments are shown.

Bench marks are shown, as are public roads and paths where they cannot otherwise be deduced.

Exceptions apply.

Shown when of outstanding importance.

Real-world feature

Electricity transmission lines on single poles
Overhead detail in industrial installations,
pipelines and so on
Minor detail in cemeteries
Playing apparatus in playgrounds
Railway catch drains, overhead lines and
conductor rails
Road centrelines

Road crash barriers
Minor roadside detail, footpath posts and so on
Roads, tracks and drives on private property
Features affected by security regulations
Fruit bushes, flower beds and rock gardens
Trees and scrub in permanent water
Golf course detail, bunkers and so on
Natural slopes and relief features
Ring fences protecting single trees,
protection fences for established hedges
Land parcel area measurements
Land parcel numbers

Notes

Shown when of outstanding importance.
Not captured in the data.

Especially important items are shown.
Not captured in the data.
Not captured in the data.

Ordnance Survey produces other data products which can
provide this information, for example, Land-Line.
Shown when they are the only division between carriageways.
Not captured in the data.
Shown when over 100 m in length.
Natural features, and so on, are normally shown in penal establishments.
Not captured in the data.
Not captured in the data.
Not captured except for areas of trees.
Exceptions apply.
Not captured in the data.

Not captured in the data.
Not shown in 1:1250 or 1:10 000 scale survey areas.
Incomplete recording in 1:2500 scale survey areas.

Common abbreviations used in Superplan Data

BM	Bench mark	MP, MS	Mile post, stone
Bol	Bollard	NTL	Normal tidal limit
C	Crane	P	Post, pillar, pole, pylon
CG Sta	Coastguard station	Pav	Pavilion
CH	Club house	PC	Public convenience
Chy	Chimney	PH	Public house
CL	Close (road)	PL	Place (road)
Cn	Capstan	PO	Post Office
D Fn	Drinking fountain	Pp	Pump
DR	Drive (road)	PW	Place of worship
EI Sub Sta, ESS	Electricity sub station	S	Stone
ETL	Electricity transmission line	SB	Signal box
F	Ferry	S Br	Signal bridge
FB	Footbridge, filter bed	SD	Sundial
FI Sk	Flare stack	SL	Signal light
FS	Flagstaff	SM	Sloping masonry
F Sta	Fire station	Spr	Spring
GP	Guide post	TCB, TCP	Telephone call box, post
GVC	Gas valve compound	TH	Town hall
Ho	House (named)	Tk	Tank or track
LC	Level crossing	um	Unmade
LB	Letter box	V Ho	Valve house
LB Ho, LB Sta	Lifeboat house, station	W	Well
L Twr	Light tower	WB	Weighbridge
Lo	Lodge	Wd Pp	Wind pump
Meml	Memorial	Wks	Works
MHW, MHWS	Mean high water (springs)	Wr T, Tr	Water tap, trough
MLW, MLWS	Mean low water (springs)	Y	Youth Hostel

Boundary mereing abbreviations

Object or mereing	Abbreviation	Object or mereing	Abbreviation
Baulk, bank, base, basin, bridge, broad	B	Metres	m
Cam, canal, causeway, centre of, channel, cliff, conduit, cop, course of, covered, culvert, cut	C	Old	O
Dam, ditch, dock, double, down, drain	D	Passage, path, plate, pond, post	P
Double ditch or drain	DD	Race, railway, ride, river, road, root of	R
Double fence	DF	Root of hedge	RH
Defaced	Def	Scar, sewer, side of, slope, sluice, stone, stream	S
Edge of, eyot	E	Top of	T
Face of, fence, fleet, foot, freeboard	F	Track	Tk
Feet	ft	Undefined	Und
Harbour, hedge	H	Wall, weir	W
Inches	ins	The following are examples of combined abbreviations:	
Kerb	K	Centre of bank, basin, baulk, board and so on	CB
Lade, lake, lead, loch, lockspit, lynchet	L	Centre of railway, river, road and so on	CR
Marsh, mere, moat	M	Centre of old course of stream	COCS
Mean high water	MHW	Centre of channel at low water	CCLW
Mean high water springs (Scotland only)	MHWS		
Mean low water	MLW		
Mean low water springs (Scotland only)	MLWS		

Note: Special rules apply to boundary mereings and only the more common ones are listed.

Troubleshooting

The layer representations are not those expected

- Superplan Data has up to 60 layers. Some CAD systems may permit only a lower number of layers. If this is the case then your system or software supplier may be able to provide software for reducing the number of layers in the Superplan Data file. Editing the Superplan Data file by hand is possible but is a lengthy, complicated process.
- The layer colours, linestyles and so on may vary according to your system configuration and characteristics.
- If the DASHED and/or DOT polylines appear as solid lines the linetype scale may need changing to a more suitable value for your drawing. Use the AutoCAD LTSCALE command, or equivalent, to change the linetype scale factor.

Superplan Data will not load into CAD

- The floppy disk or CD-ROM may be corrupted. Try to copy the data onto your hard drive (usually known as the C drive) using Windows Explorer or equivalent. If this is not successful, then ask your Superplan Agent for replacement Superplan Data.
- Certain CAD software will not accept Superplan Data directly. You may need to import the data into other software first, for example, AutoCAD or equivalent. Make sure the original data is then exported as a DXF file before attempting to reload in the original software.
- You may be trying to import a Superplan Data file which has been compressed. If so, the file name suffix will be .zip and not .dxf (see *Section3 – Loading Superplan Data into CAD* in the README.TXT file supplied with your data).

- You may be trying to import a Superplan Data file which has been compressed and split on to more than one floppy disk. If so, the file name suffix will be a two letter combination, such as .aa (see *Section3 – Loading Superplan Data into CAD* in the README.TXT file supplied with your data).
- DXF compatibility. The DXF file structure was originally designed by Autodesk® Inc for AutoCAD systems. Superplan Data in DXF conforms to the NEDO standard for 2-D CAD drawings in the construction industry and should be compatible with most other CAD systems. In cases of difficulty consult your system supplier.

Superplan Data will not decompress

- If the data decompression utility does not work as expected, refer to the README.TXT file supplied with your data.
- You may be trying to decompress one part of a compressed Superplan Data file which has been split onto more than one floppy disk. The parts must be recombined before they can be decompressed.
- You may be trying to decompress a Superplan Data file which has been supplied as a plain, uncompressed DXF file.
- You may be trying to decompress a Superplan Data file which has been base64-encoded for transfer via email. You need to save the attachment from a MIME-compliant mail reader, or use a utility such as WinZIP, which will decode MIME files.

For further assistance you can refer to the following areas:

- **To load the Superplan Data into your system** – see *Section 3 – Loading Superplan Data into CAD* in the README.TXT file supplied with your data or contact your Superplan Agent.
- **Further technical information and product developments since this user guide was published** – see the README.TXT file sent with your Superplan Data.
- **Information or queries regarding Superplan Data** – please contact your Superplan Agent directly, quoting your drawing reference number.
Information about Superplan Data can also be found on our web site at www.ordnancesurvey.co.uk
- **Assistance with your hardware and software** – please contact your system supplier.