

Important Boundary Analysis Surveys notes

Atlas Surveys Boundary Analysis projects are presented in plan format and are supported by a brief written technical report. Such drawings represent a compilation of three primary resources: Ordnance Survey electronic mapping, the Land Registry Title Plans for the properties in question and, if required, Atlas Surveys llp ground mapping. Preferably, the Title Plans for the surrounding properties would be included in the process as discrepancies such as apparent gaps and / or overlaps between the discrete Titles occur regularly.

The Ordnance Survey mapping and Title Plans documents have inherent technical limitations and some of these are summarised below. Note that on some occasions, boundary analysis results may be inconclusive if the quality of the resources available is particularly poor.

1. Ordnance Survey Electronic Mapping

The Ordnance Survey mapping of the local area is obtained from Promap who are an online supplier / agent for Ordnance Survey mapping products. The mapping is purchased in AutoCAD dwg format and, except for presentational purposes, is imported directly into our survey drawing without alteration.

The OS mapping is produced for a scale of 1:1250 (urban) or 1:2500 (rural) and in our experience, has an inherent accuracy of approximately 0.5 to 1.0m at best.

2. Land Registry Title Plans

UK Title documents are primarily based on Ordnance Survey mapping and show the 'general property boundary'. Title Plans are based on the Ordnance Survey mapping that is available at the time of the registration. Unless the first registration of the property was made very recently, the Title Plan may well be based on a previous (historical) generation of mapping. The numerous eras of mapping do not always compare exactly.

Title plans for the properties in question are obtained directly from the Land Registry in PDF format via their online Property Search facility. In most cases, the PDF files are simply electronically scanned versions of the original paper documents. Paper documents are subject to various distortions over time and the scanning process may introduce scaling errors.

The use of documents supplied by the client or other third parties is not encouraged as it is prudent to utilise original documents at all stages of a boundary analysis.

Each Title Plan is converted to jpg image format and imported into AutoCAD. The image is then graphically fitted by eye to the current Ordnance Survey mapping of the area. This process requires an element of technical judgement to be exercised as no definitive fit exists. The fit is made in an unbiased way. A drawing showing each graphical fit is provided.

Note that, as is traditional, in most cases it is the outermost edge of the Title Plan boundary line that represents the property extents.

3. Atlas Surveys Ground Mapping – (Optional)

The ground survey would be undertaken for a measurement scale of 1:200 and thus individual survey points taken to well defined features have an expected accuracy of approximately $\pm 0.1\text{m}$

Survey control would be established by GPS Static and RTK observations augmented by ground survey traversing. Control coordinates are rigorously computed with reference to the Ordnance Survey Active Network. This process accurately fixes our survey to Ordnance Survey National Grid which is the coordinate system employed by the Ordnance Survey and the Land Registry.

Features of interest are observed as radials from survey control stations together with a sample of check measurements to more remote features to help assess the local accuracy of the Ordnance Survey mapping.

4. Setting-out of boundary location - (Optional)

Once analysis is complete and the client has reviewed and agreed the results with the relevant parties and consultants, the calculated general boundary can be physically set-out on site. The surveyor would mark the boundary positions with temporary indicators (timber pegs on soft ground and paint marks on hard surfaces). We do not allow for more permanent monumentation as this aspect is more efficiently provided by a building / construction contractor.

Appendix

Extract from Atlas Surveys llp internal guide to boundary analysis

When undertaking a boundary analysis, the measured surveyor's role is to compile the available information in a clear and unbiased way. While it is necessary to make some judgements as part of that process, these judgements should be of a technical nature and, as far as possible, made without expressing opinion. Our role is to provide information to facilitate and aid the decision making of others. Inconsistencies are then resolved by agreement between the parties involved or their legal representatives. The surveyor should not express personal opinions but, as far as is possible, base their input on matters of a factual or technical nature.

It is important to understand the significant limitations of the information available when analysing the legal boundaries of properties in the UK. Firstly, under the current cadastral system, no definitive boundary line exists (except in exceptional circumstances). What is termed the 'general boundary' is shown on Land Registry Title Plans. Title Plans are based on (often historical) Ordnance Survey mapping and are supplied by the Land Registry as PDF documents. In most cases, the PDF files are simply electronically scanned versions of the original paper documents. Paper documents are subject to various distortions over time and the scanning process may introduce scaling errors. Each Title Plan is converted to an image, imported into AutoCAD and graphically fitted by eye to the current Ordnance Survey mapping of the area. This process requires an element of technical judgement to be exercised which should be fair and unbiased. The OS mapping itself is produced for a scale of 1:1250 (urban) or 1:2500 (rural) and so it is only accurate to approximately 0.5 to 1m at best. Separate Title Plan documents may have a different time of original registration and therefore be based on different eras of Ordnance Survey mapping. As a result of these limitations, gaps and overlaps between Title Plans are common place.

Existing ground features such as fences, walls and hedges etc do not necessarily constitute proof of the legal property boundary position. Nor does the absence of a boundary feature have any definite impact on the position of the legal property boundary. Encroachment over time by neighbours beyond a neglected property boundary (by design or accident) is common place and in some circumstances Adverse Possession may apply.