SURVEY RESULTS

2000 / 28 Lower Basildon, Reading

1. Survey Area

1.1 Detailed gradiometer survey in excess of 3 hectares, and over 1 hectare of resistivity were undertaken over two fields during the course of 3 days on site. The location of the survey areas is shown in Figure 1 at a scale of 1:2500.

1.2 The survey grids were set out by **GSB Prospection** and tied in by **Time Team** using a Trimble GPS system.

2. Display

2.1 The data are presented as a series of XY traces, dot density plots, greyscale images and digitised interpretations at a variety of scales. The details are given in the List of Figures. The display formats are discussed in the *Technical Information* section at the end of the text.

2.2 A total of twelve trenches as indicated on Figures 2 and 4 were excavated by **Time Team**. Only the trenches dug on the basis of the geophysics are referred to in the text of this report.

3. General Considerations - Complicating factors

3.1 Apart from the complications of the site being split by the railway and the existence of a clump of newly planted trees, conditions were generally good for survey.

3.2 Past surveys over similar soils have tended to show a weak magnetic contrast between feature and fill, although archaeological features are usually detectable.

3.3 The data contain numerous isolated ferrous-type responses which are attributed to ferrous debris within the topsoil. These have been assigned a modern origin and are not mentioned in the text unless considered relevant.

4. Results of Magnetic Survey

Area 1

4.1 A complex of linear anomalies indicative of enclosure ditches, field systems and trackways has been identified. The responses extend across most of the area investigated, clearly continue beyond the survey grid and indicate the likelihood of further settlement activity beyond the current survey area. Unfortunately time did not permit a more extensive survey. The responses are well defined and an increase in anomaly strength is visible close to the railway line (the core of the Roman settlement) and at the south-western end of the field (see Paragraph 4.2). While

most of the observed responses coincide with the AP evidence, many of the magnetic linear anomalies in the south-west are not visible on photographs. When the cropmarks are plotted on the ground using a GPS system a discrepancy of between 5 and 10m is observed along one axis, but less than 3m in the other direction.

4.2 The results indicate a large enclosure (A) with several associated ditches. The majority of the linear anomalies (A, B, C, D and E) are on a similar rectilinear alignment and, as such, are assumed to be associated with the villa. The precise relationship with the linear responses at (F) remains uncertain. However, the results indicate a small enclosure (G) that is respected by (or respects) the large enclosure (A) but is clearly of a different phase. Three of the sides of enclosure (G) are well defined, the fourth (H) less so. While there appear to be trackways formed by lines of double ditches at (I), the presence of (G) casts doubt on such a simplistic interpretation. Excavation showed that ditches A (Trench 1); D (Trench 7) and F (Trench 9) are Roman in date.

4.3 A small rectilinear enclosure, clearly visible on APs, is also recorded as a distinct magnetic anomaly (J) and there are indications of weak internal magnetic anomalies. The shape of the ditched feature and its alignment compared with the other linears (A to F) suggests that it dates from a different period to the Roman remains. Trial excavation (Trench 6) confirmed that the feature is Neolithic and likely to be a mortuary enclosure. Subtle soil changes were found within the enclosure (extension to Trench 6), although no finds were associated with these features.

4.4 Elsewhere in the data are a number of anomalies that appear archaeological in origin. These include a scatter of well defined pit-like responses near to (J) and in the vicinity of (F); and faint anomalies notably in the north-east corner of enclosure (A) and north of ditch (E). Unfortunately, it is impossible to determine on the basis of the geophysics whether the anomalies date to the Neolithic, Roman or other periods.

Area 2

4.5 The magnetic anomalies to the north-east of the railway are less distinctive. Scanning indicated an absence of areas of magnetic enhancement contrary to that expected from a Roman villa complex. Detailed survey confirmed this picture. A couple of linear anomalies were located, but very few occupation type responses were found.

5. Resistance Survey

Area 1

5.1 The results from this area indicate several low resistance linear responses that coincide with the ditch anomalies recorded on the magnetic survey. In addition, there are several amorphous high resistance responses that are difficult to interpret. The lack of any specific shape or form suggests a natural origin, though it is possible that a spread of building rubble could be responsible. A small excavation (Trench 5) demonstrated that the high readings were a result of a concentration of flint and gravel that was not deemed to be of archaeological interest.

Area 2

5.2 On first analysis, the results from this side of the railway appeared to be far more encouraging from an archaeological point of view. Although there are amorphous high resistance geological type responses in the data, there are also several linear anomalies. Some of these are well defined and they appear to indicate wall foundations, others are more blurred perhaps indicating

a spread of stone rubble. The overall results indicated a complex of rectilinear responses on a similar alignment that could easily represent buildings and garden features on the edge of a villa complex.

5.3 It was decided to excavate four anomalies in order to test the interpretation of the geophysical results. Trench 2 was targeted over a tentative corridor between two walls, however the anomalies associated with the latter were not particularly clear. Excavation failed to find any wall foundations but flint and gravel banks were located together with a shallow ditch that contained Iron Age pottery. Trenches 4 and 10 investigated a postulated T-junction of two walls and this interpretation was confirmed; one of the walls was thought to be structural while it was postulated that the other could have been a garden wall. Trench 3 was targeted over a small anomaly on the edge of the survey area; this appeared to be on a different alignment to the majority of the linear anomalies and given its location close to the railway it was of particular interest to **Time Team**. Excavation recovered Roman artefacts but the high resistance readings were seen to coincide with a natural concentration of flints. The fourth trench, 12, investigated a high resistance response similar to those on the other side of the railway (see Paragraph 5.1); once again a natural origin was seen to be responsible. The general paucity of Roman artefacts led the archaeologists to doubt that the geophysical anomalies were associated with the core of the villa complex.

6. Conclusions

6.1 To the south-west of the railway (Area 1) a complex of enclosures, field systems and possible trackways of likely Roman date were identified, together with a small Neolithic mortuary enclosure.

6.2 In the north-east (Area 2), resistance survey recorded several linear anomalies associated with wall foundations and former banks / paths. Their precise relationship with the Roman villa building remains uncertain.

6.3 The geophysical evidence suggests that, apart from possible remnants of structures in the north-east, the majority of the villa building would appear to have been destroyed by the construction of the railway.

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Project Assistants: L Harvey, F Robertson, A Shields and C Stephens.

Date of Survey: 13th –16th March 2000
Date of Report: 27th March 2000

References:

Roach Smith, 1839 Roman Pavements Discovered at Basildon in Berkshire, *Archaeologia*, Vol XXVIII pp 447-450

SSEW, 1983 *Soils of England and Wales. Sheet 6, South-East England.* Soil Survey of England and Wales.

SITE SUMMARY SHEET

2000 / 28 Lower Basildon, Reading

NGR: SU 607 793 (Approximate centre)

Location, Topography and Geology

The area under investigation lies several kilometres north-west of Reading, Berkshire, close to the south-western bank of the River Thames. Located between Lower Basildon and Goring, the site is divided into two by the Oxford to Reading railway line. Two fields occupying a level river terrace were investigated; both were under short pasture and generally free of obstructions. The site soils can be grouped as typical argillic brown earths formed from river terrace gravels. Such soils comprise well drained fine and coarse loams over gravel and are characteristic of the Sutton 2 (571v) association (SSEW, 1983).

Archaeology

During construction of Brunel's Great Western Railway line in October 1838, two Roman mosaics and a number of burials were unearthed (Roach Smith, 1839). Aerial Photographs (APs) indicate a complex of cropmarks which include enclosures, field systems and trackways.

Aims of Survey

Geophysical survey at the site was carried out as part of a **Time Team** investigation for **Channel 4** television. It was hoped that survey would identify any remnants of the villa building surviving outside of the railway corridor and also assist in mapping archaeological features within the wider landscape.

Summary of Results *

The magnetic survey has identified a number of ditches that form a network of enclosures, field systems and possible trackways. While there is general agreement with the AP evidence, the geophysics has added considerable detail in the south-west of the site and also shown that the error in the AP transcriptions is 5m or more. There are no characteristic responses in the magnetic data that might indicate a Roman villa building.

The resistance results are more difficult to interpret because of geological complications, however, several linear high resistance anomalies have been identified. Excavation demonstrated that some of these are associated with flint walls, others with flint banks and some of the more amorphous responses with natural flint / gravel concentrations. While a rectilinear pattern of high resistance anomalies clearly exists, a lack of finds suggests that these putative structural remains were on the periphery of the main villa complex. The latter is presumed to have been largely destroyed by the construction and subsequent widening of the railway.

*** It is essential that this summary is read in conjunction with the detailed results of the survey.**

List of Figures

GSB PROSPECTION

PROJECT: 2000/28 LOWER BASILDON

TITLE: Location of Survey Areas

Gradiometer Survey

Resistance Survey

0 metres 100

Figure 1

GSB PROSPECTION

PROJECT: 2000/28 LOWER BASILDON

TITLE: Summary Greyscales - Magnetic Data

2.0

nT

-1.0

Excavation Trenches

0 metres 50

Figure 2

GSB PROSPECTION

PROJECT: 2000/28 LOWER BASILDON

TITLE: Summary Interpretation - Magnetic Data

Area 1

Area 2

Ditch

Archaeology

?Archaeology

Ferrous

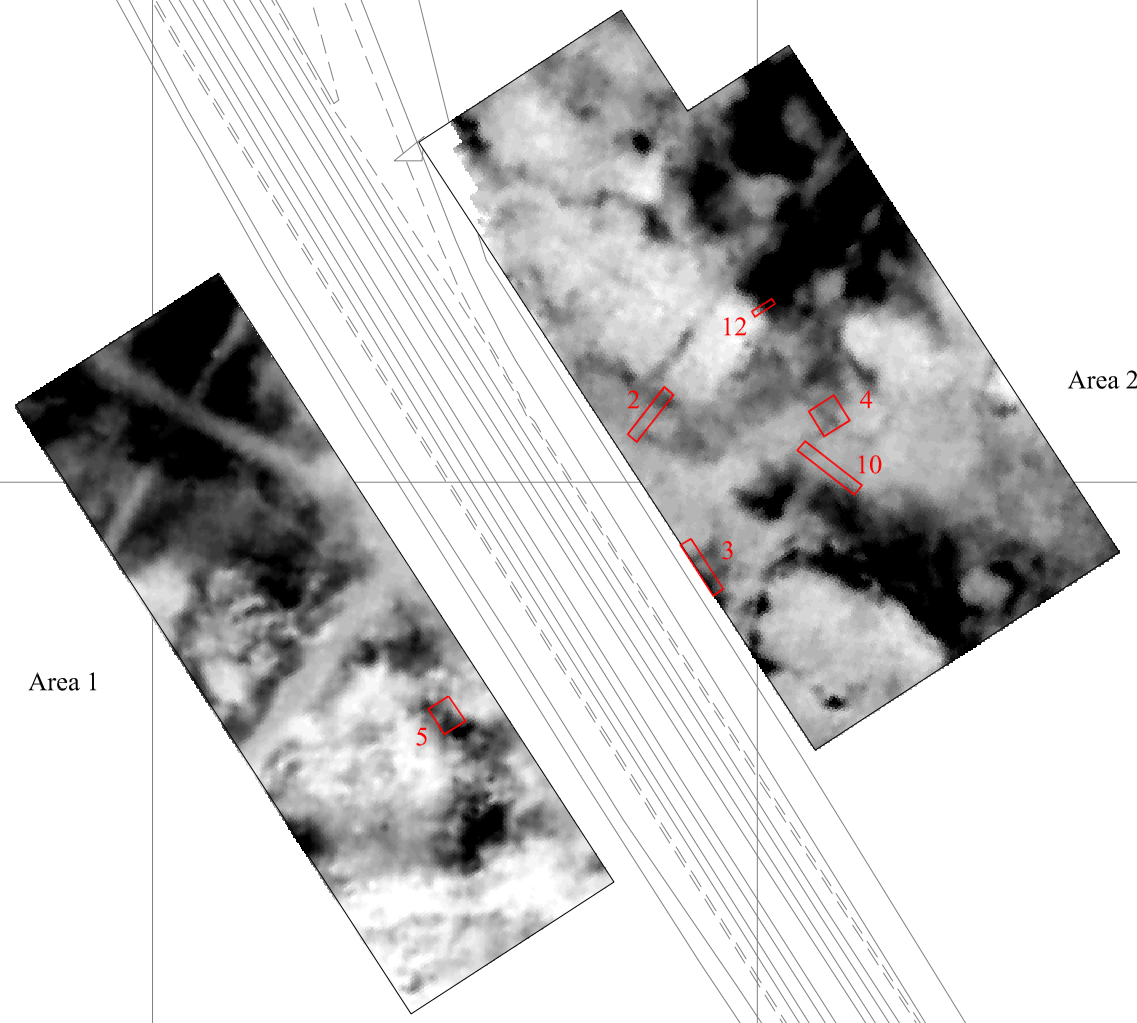
0 metres 50

Figure 3

GSB PROSPECTION

PROJECT: 2000/28 LOWER BASILDON

TITLE: Summary Greyscales - Resistance Data



140
ohms
40

Excavation Trenches

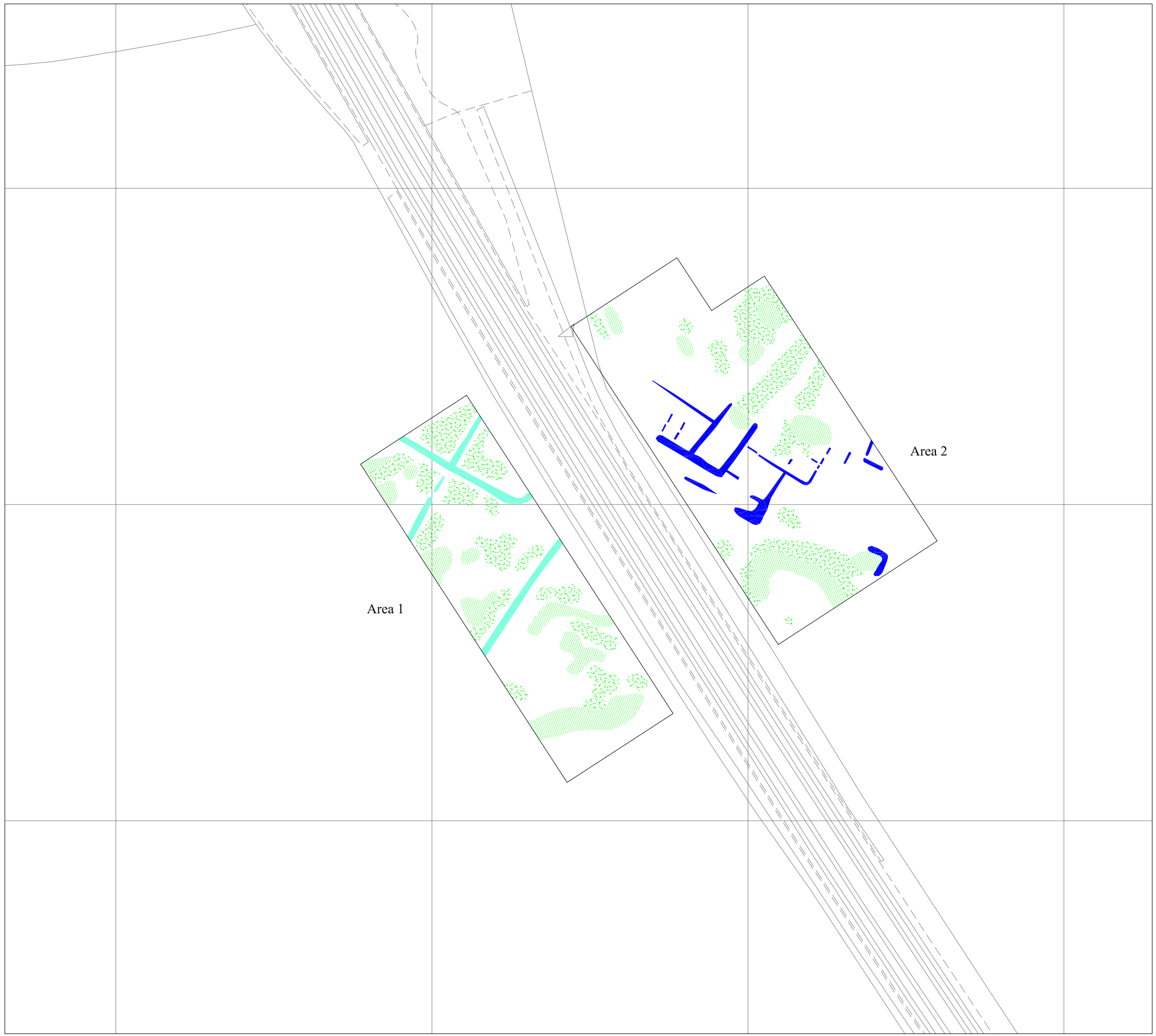
0 metres 50

Figure 4

GSB PROSPECTION

PROJECT: 2000/28 LOWER BASILDON

TITLE: Summary Interpretation - Resistance Data



High Resistance - ?Archaeology

High Resistance - ?Natural

Low Resistance - Ditch

Low Resistance - ?Natural

0 metres 50

Figure 5