Lytchett Matravers, St Mary's Church

Geophysical Surveys in Search of a Tunnel, 2026

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Abstract

St. Mary's Church in Lytchett Matravers in Dorset dates from the late 12th century. The churchyard has two large yew trees, which may predate the church. The site is believed to have been of religious significance prior to the church being built there. There was a village built around the church in mediaeval times and a manor house was built near the church. The church and manor house were connected to each other by means of an underground tunnel. The mediaeval manor house was demolished and another building erected in the 19th century.

The purpose of the tunnel is currently unknown, it may have been for smuggling purposes or was possibly a tunnel to facilitate a Roman Catholic priest to escape from the church after performing mass post-Reformation, or may have been for some other purpose.

Several parishioners who have been involved in the church over many decades, recall seeing some younger members of the choir exploring down the tunnel in the 1950s. After this, the tunnel was then sealed off, and the exact location almost forgotten, but the existence of the tunnel is not in doubt.

Interest in the tunnel's location was rekindled by a growing appreciation of the church's history. A key interest was to find the tunnel again, but using – if possible – non-invasive techniques. This was to respect historic burials and – if possible – to avoid having to get a faculty, particularly given the historic nature of the building. The owners of the subsequent manor house advised that builders had seen access to the tunnel in the old cellars of the mediaeval manor house, but these had been filled in and are no longer accessible.

EDAS (East Dorset Antiquarian Society) supported the investigations with a GPR (Ground Penetrating Radar) survey. An area of 30 by 15 m was surveyed in the garden of the manor, which appears to show the tunnel location between the churchyard and the manor house. GPR results in the churchyard were unclear, due to the ground being so turned over with many burials in the churchyard over many centuries.

To help investigations in the churchyard, BACAS (Bath and Counties Archaeological Society) offered to perform an ERT (Electrical Resistivity Tomography) survey. Survey lines were done to replicate some of the GPR lines for comparative purposes. The ERT surveys appear to show the tunnel's location at either end, although there is some location discrepancy by the church.

Some other clues have been provided by a 3D scan, observations on the wall separating the manor house lawn from the churchyard and a few other inferences.

The project is ongoing and it is planned to excavate and regain access to the tunnel and – by studying its method of construction and if any historical remains (e.g. coins, pottery, etc.) are found – determine the likely age of construction and purpose (e.g. religious or economic), in the grounds of the current manor house

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2026

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Preface

This project was initiated by David Mason, organist at Lychett Matravers, following conversations with some of the congregation, who remembered the discovery of the tunnel in the 1950's. Robert Heaton's radar and three-dimensional surveys through EDAS have been complemented by electrical resistivity tomographic survey by BACAS. From these, there is enough confidence for small investigations by excavation near the manor house. Further work in the church or churchyard would require a faculty from the diocese.

Acknowledgements

Local maps have been reproduced from Google Maps and Open Street Plan

Historic Ordnance Survey Maps were from National Library of Scotland

We acknowledge reference to the British Geological Survey map for required details

Thanks are due to Mike Moors for his metal detector survey on the Maltravers tomb.

Thanks are due to the Vicar and Churchwardens of St Mary's, Lytchett Matravers, Dorset

Thanks are due to Peter and Pamela DeVoil for access to their garden for this survey.

Thanks are due to Mrs. Nita Parke for giving her memories of seeing the tunnel.

Cover photograph is by Robert Heaton.

1 Introduction

1.1 Location

Lytchett Matravers is in Dorset, some 10 km to the north-west of Poole. The church is approximately 0.5 km north-west of the village centre, standing with three other houses separately from the modern village settlement. It is at Ordnance Survey Grid Reference ST 936962, approximately 58 m above Ordnance Datum. Behind it, the hill rises to approximately 100 m, where the modern village sits. There is a site of village desertion 100-200 m to the south-west of the church. The Manor House grounds are immediately north of the churchyard, separated by a brick wall some 1.5 m high, with a gate between the two. Location is shown in figure 1.1.

Figure 1.1. Location map for Lytchett Matravers, St. Mary's Church.

Figure 1.2 shows the church in detail from the Ordnance Survey 1:10600 (6") map of 1932, also showing the Manor Garden and surrounds. The map indicates a bench mark on the west of the tower. The height of 190.9 ft translates to 58.14 m. The bench mark has been partly obliterated but the height line is still visible.

Figure 1.2. Ordnance Survey 1932 map, showing Manor House garden with church and bench mark. The damaged benchmark is picked out on the west tower small buttress.

Geologically, west churchyard wall marks the point where land (including church and Manor House) are on London Clay (West Park Farm Series) to the east, while to the west is an outlier of Chalk (Portsdown Series).

1.2 Setting of Church and Manor

St Mary the Virgin, Lytchett Matravers stands in an unusually isolated position on low ground north-west of the present village. This location reflects the fact that the church was originally at the centre of the medieval settlement, which clustered around the manor house before the population shifted uphill following the devastation of the Black Death in the fourteenth century.

No documentary record survives for the church's foundation. Local tradition associates its construction with the Maltravers family, Norman lords of the manor after the Conquest. One tradition suggests that Sir Walter Maltravers may have commissioned the church around 1200 while absent on crusade. Although this cannot be proven, the earliest surviving fabric dates from the late twelfth or early thirteenth century. The west tower, nave and chancel appear to belong to this initial phase of construction.

The church was enlarged in the fourteenth century by the addition of the north aisle and arcade around 1350. Within the building are monuments associated with the Maltravers family, including memorials believed to commemorate members of this influential medieval dynasty.

The Black Death of the mid-fourteenth century probably caused the depopulation which altered the settlement pattern. Much of the population abandoned the low-lying village around the church and resettled on higher ground where the modern village now stands. The church consequently became isolated from the main population centre and may have fallen into partial neglect before major restoration work around 1500. This rebuilding campaign is often associated with Dame Margaret Clements, whose memorial brass survives in the church.

The church was listed on 20th November 1959 under entry 1171322. It is a Grade 1 listed building.

Adjacent to the church stood the manor house, the secular focus of the medieval estate. The manor belonged to the Maltravers family from the Norman Conquest until the late fourteenth century, when inheritance carried it to the FitzAlan family, Earls of Arundel.

The original medieval manor house no longer survives in its early form. Historical records indicate that the estate passed eventually to the Trenchard family, who made Lytchett Matravers one of their principal residences. Successive rebuilding and alteration obscured much of the medieval structure. The present Manor House is largely nineteenth century, although it occupies the site of the earlier manor and may incorporate masonry from the early modern period.

The close proximity of church and manor is characteristic of a medieval manorial settlement, where lordship and parish life were physically and socially intertwined.

During the eighteenth century, many English landowners remodelled their estates in the fashionable picturesque style. The ha-ha at Lytchett Matravers allowed the owners to enjoy open views from the manor across the church, parkland and surrounding countryside without visible fencing. The ha-ha is now manifest as the low wall which raises churchyard and manor house lands above the level of the present car park. At the same time it maintained a practical barrier between ornamental grounds and agricultural land.

The survival of this feature is significant because it illustrates the transformation of the medieval manor landscape into a Georgian designed estate. Together, the

church, manor house site and ha-ha provide a rare physical record of nearly eight centuries of continuous occupation and landscape evolution.

The setting of these is shown in figure 1.3, which is also used as the front cover illustration.

Figure 1.3. Setting of church and manor, with ha-ha wall at the bottom of the photograph.

The Dorset coast, particularly around Poole Harbour, Studland, Kimmeridge and Swanage, was heavily involved in the smuggling trade during the seventeenth and eighteenth centuries. Many local landowners were accused of turning a blind eye to the movement of contraband, while some were alleged to have profited indirectly through rents, storage facilities or local patronage networks. There is no strong documentary evidence that members of the Trenchard family of Lytchett Matravers were themselves active smugglers, but they were a prominent family within a region where smuggling was widespread and often enjoyed a degree of social acceptance. Mention will be made later of contents of theirs which were often a cover for smuggled goods.

The grounds of the manor represented the polite face of Georgian society, while only a few miles away the creeks, rivers and coves served as gateways for one of Dorset's most lucrative illicit industries.

1.3 Background to this study

David Mason is organist at Lytchett Matravers. He has recently become interested in tales of a tunnel which was blocked off in the 1950's by the Incumbent (Mason, 2025). An eyewitness, Mrs Nita Parke remembers seeing the entrance in the church at that time. Her recollections are recorded in Appendix A. The tunnel was believed to connect with the Manor House just to the north of the churchyard. The current Manor House ranges in date from 17th Century to modern, however it most likely occupies the site of an earlier house built by the Maltravers family during mediaeval times (McClure, 2020).

Several parishioners who have been involved in the church over many decades, recall seeing some younger members of the choir exploring down the tunnel in the 1950s. After this, the tunnel was sealed off, and the exact location almost forgotten, but the existence of the tunnel is not in doubt. Percival (1989) quotes: 'There was also evidence of a tunnel leading from the cellars into the church, into one of the north aisle tombs, it was seen and bricked up and sealed in 1949. At around the same time one of the Trenchard tombs in the north aisle collapsed and had to be resealed. Some 35 years previously the same thing happened to one of the Maltravers tombs, directly before the north aisle door.'

Interest in the tunnel's location was rekindled by a growing appreciation of the church's history. David Mason was particularly keen to progress with the research and was put in touch with Robert Heaton via Kevin Jones who knew about his links with archaeology and geophysical survey work locally. A key interest was to find the tunnel again but using – if possible – non-invasive techniques. This was to respect historic burials and – if possible – to avoid having to get permission for a faculty (legal permission to make alterations, repairs or additions or disposals concerning consecrated building contents or churchyards), particularly given the historic nature of the building.

An initial meeting was held at the church on Wednesday 28th May 2025 at 2pm. After David and Robert had looked at the church and the grounds, a few line slices were gathered using a Mala ground penetrating radar to assess the general situation and potential future work. It was clear that there were no easy answers to be found due to the highly disturbed ground over many centuries in the graveyard. Later in the afternoon Mr. Devoil, the Manor House owner, walked past and they were able to discuss the history of the site and learn all about his knowledge gained from building the new Manor House above the site of the earlier documented structures.

The owner of the manor house advised that he and his builders had seen the demolition material relating to the former buildings and elements of the old cellars of the mediaeval manor house, but these had been filled in and are no longer accessible. Mr. Devoil was able to give consent for the use of radar on his significant gardens and thought the tunnel may pass under the gate in the church wall. But this was not based on any specific experience other than using metal probes.

Robert Heaton of EDAS has used his ground-penetrating radar (GPR) to survey the lower lawns of the Manor House and has detected substantial signs of building remains to the west of the modern house and also a linear feature conjectured to be the tunnel heading south towards the churchyard. This was initially reported in Mason (2025), while an introduction to the radar was given in D'Eath (2025).

Electrical resistivity tomography (ERT), locally known as resistivity profiling was used by BACAS to supplement the radar work. ERT is a slow, static technique but it can produce resistivity profiles down to about four metres depth and these can be downloaded and analysed rapidly and the profiles produced can be compared with radar output.

Robert Heaton has also used his iPhone Lidar to produce geolocated three-dimensional images both inside and outside the church, and these demonstrated that there was sufficient thickness of wall behind the known fireplace at the east end of the North Aisle to accommodate a stairwell.

It had been intended originally also to conduct ERT over the tomb of Sir John Maltravers which is in the North Aisle but the length of the aisle was insufficient to accommodate a line of probes of necessary length and spacing to achieve a worthwhile depth. However, David Mason arranged a detailed Metal Detector survey over the grave slab to check the legend that Sir John Maltravers had been buried in full armour. The survey indicated the presence of much ferrous and some non-ferrous metal beneath the grave slab suggesting the legend was true. The survey is included as Appendix B to this report. Appendix C was prepared by Gillian Vickery and reports on the possible space behind the fireplace.

1.4 Dates

The survey work was carried out between Sunday 29th March and Tuesday 31st March 2026.

1.5 Personnel

John Oswin and Gillian Vickery were BACAS volunteers, David Mason, Robert Heaton and Phil D'Eath were from EDAS.

1.6 Scope of this report

This report describes the geophysical surveys aimed at locating the tunnel and the results and interpretation of those surveys only. Other related areas of study have been included as appendices but are not part of the main report.

2 Method

2.1 Electrical Resistivity Tomography (ERT)

This method, also known locally as Resistivity Profiling uses a line of probes and measures the electrical resistance between each pair. Knowing volume and area of soil included between each pair of measurement probes, the resistance is converted to resistivity, which would remain constant at any depth for a given type and moisture of soil. The equipment provided used a Wenner configuration, where voltage was measured between an inner pair of probes due to current passed between an outer pair, so each measurement used a set of four probes. The distance between each of the four probes used in any measurement is kept the same.

The depth seen is encompassed by the hemisphere, that is half the distance between the voltage probes. Large spacings look deep, but include the effect of shallow results, which have to be subtracted from the larger spacings. This is achieved using matrix inversion within a finite element calculation. Vertical resolution is equal to half probe minimum separation, horizontal resolution is equal to minimum probe separation.

The set of probes used here amounted to 32 in number, spaced 1 m apart, giving a line length of 31 m. As the measurement is located midway between the inner pair, the first reading is at 1.5 m, the final reading is at 29.5 m with one metre spacing, but the first and last reading of each probe spacing (up to 9 m with this equipment) were 13.5 m and 17.5 m, so coverage to 4 m depth was only available over less than the 10 m central portion of each profile.

Figure 2.1. Profiling probe set connected via selection box and cable manifold.

The equipment used was a Frobisher TR3 resistance meter connected to a line of stainless steel probes via a probe selection box and cable manifold, which were built to BACAS design. This is shown in figure 2.1. Each profile was downloaded to a laptop computer running Microsoft XP and Geotomo RES32DINV software v2.117, dongle-controlled to allow full use of all facilities within the software.

All four lines started with their western ends (the zero point) on the western wall, which carried on from churchyard to Manor House lawn. In the churchyard, straight lines were only possible in certain places in order to miss trees, graves and table tombs.

2.2 Ground-Penetrating Radar (GPR)

The survey work has been carried out with a Radiodetection LMX 200 with a 250MHz antenna with GPS and using Ekko Project software Version 6 Revision 2. This is a powerful latest generation piece of Canadian equipment that is easily portable and transfers site data via USB data stick. The device is shown in figure 2.2.

EDAS is developing processes in order to keep track of the use of the machine on multiple sites and work is documented on EDAS sheet 6 and the data is stored as project 9 on the internal storage.

Figure 2.2. The Ground Penetrating Radar unit, complete with GPS receiver.

The main work consisted with the collection of data for two 15 x 15m grids using a spacing of 0.5m and taking lines in both X and Y directions to ensure more consistent coverage. Collecting the data involves walking at a steady speed in straight lies 15m long and each grid for this site consists of 62 lines at this definition. Figure 2.3 shows the grids overlaid on the garden, with one of the depth slices used to illustrate the survey.

The first grid was collected on 9th October 2025 by Robert Heaton and assisted by David Mason after discussion and consent by the property owners.

The second grid was collected on 20th November 2025, and conditions had not allowed the ground to become too wet. This is important as water is a moderator and tends to reduce the signals' progress through the ground.

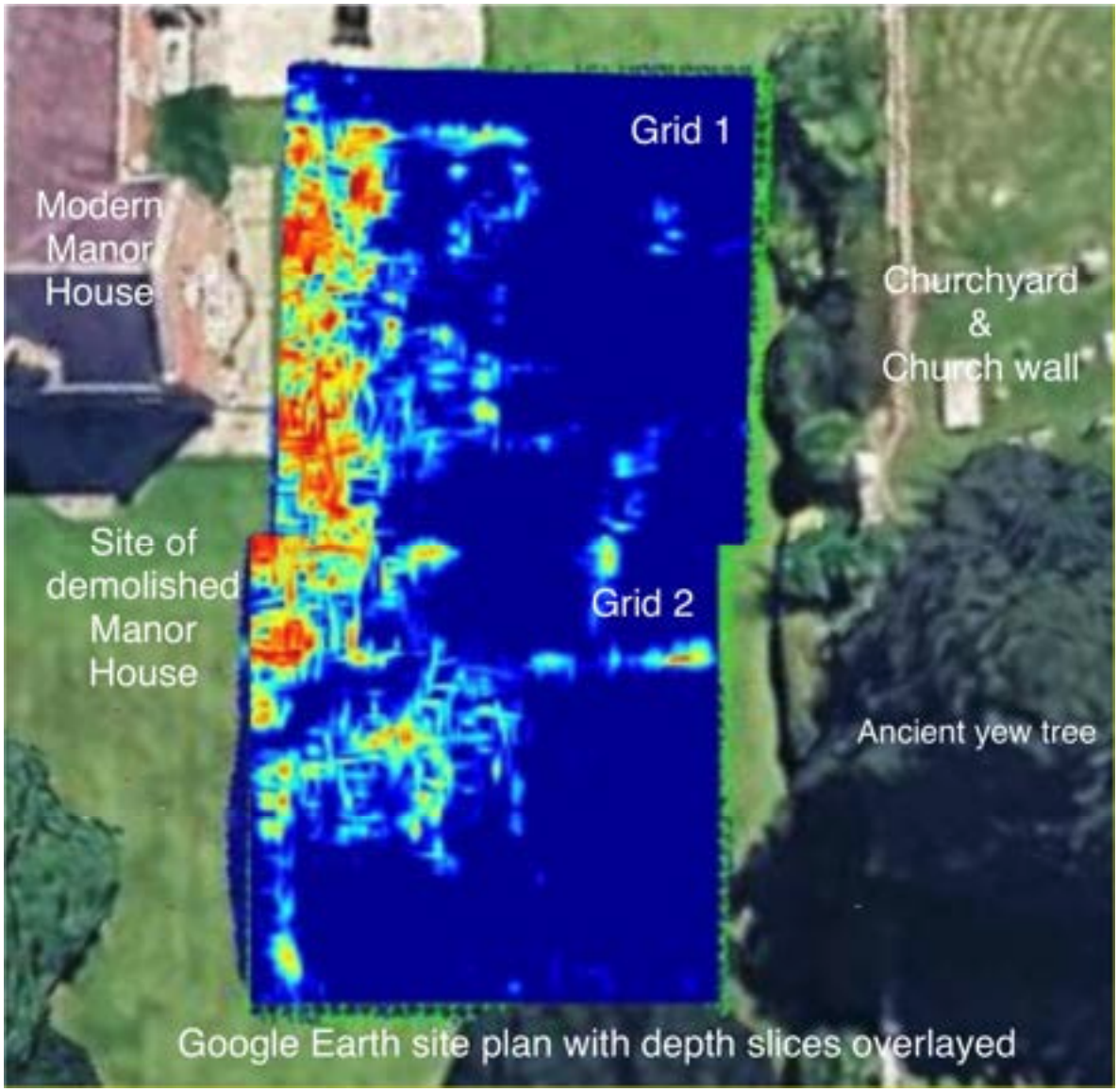

Figure 2.3. The area surveyed in the two grids, shown as a depth slice, superimposed on the garden.

Google Earth is compatible with The Ekko software using kmz files. This facility is helpful in proving the position of the radar's findings relative to known site features, trees, and buildings.

The data from the Ekko Project software can be presented in a number of ways. The subsoils in the garden allow good penetration of the radar signals and normally reports rely on depth slices to convey the findings. In this case, a more comprehensive method is employed where depth slices are presented with associated line slices. The depth slices are available at 100mm layers where changes in the ground's makeup, with geological and man-made features, can provide a clear image of what is buried below. The radar waves travel down and back at known speeds that translate to measurable distances. The radar has automatically calculated the wave speeds and calibrated the depths of the slices from this. The figure calculated was 0.1 m/ns.

The software has the capacity to analyse multiple line slices and pick out the main features to give a very visible interpretation across an area. One line slice represents the GPR operator walking in a straight 15 m long line after pressing the start button. The LMX200 has a measuring device built into one of the wheels. The GPS receiver can also provide accurate distance and position measurements, but working in grids has benefits where quality of data collection is paramount.

Understanding the line slices as vertical cuts through the ground, where the red line is positioned, allows for a more comprehensive analysis of the complex ground anomalies. It also helps to understand that deep blue areas represent low signal returns. Yellow and red features are likely to be highly reflective surfaces from materials such as stone and course gravels.

We believe that the tunnel had partially collapsed in the 1950's when the vicar of the day led several junior choristers a certain distance along it. This is taken as important information, as there is a strong likelihood that any voids underground in the garden have been inundated due to the natural wet UK conditions that prevail. Lay tunnels in Dorset from medieval times often had stone walls and vaulting that protects the tunnel and preserves the voids. If the tunnel had collapsed then it may mean it was, in part, constructed covertly with timber. Whilst wood is a prime structural material, it has a limited lifespan. As a natural hydrocarbon it decays and returns to its constituent elements leaving minimal trace for the radio waves of the radar to detect.

2.3 3D Scanning

There are some Apple iPhones and iPad Pro models that contain LiDAR devices that allow 3d scanning. These LiDAR sensors were originally developed for the car market and have allowed individuals and developers to build software to utilise this powerful hardware.

The 3D Scanner app below has been used for several years on EDAS sites and found to be a powerful stable recording tool that also allows colour rendering as the laser data is processed.

Figure 2.4. iPhone with scanner facility.

3 Results

3.1 Electrical Resistivity Tomography (ERT)

The four profiles obtained by ERT are shown below in figure 3.1. These are arranged from North at the top to South at the bottom. The numbers attached to each profile represent the order they were taken in. The distance between tops of profiles is in scale with the length of the profiles, each 31 m in total measurement length. All profiles were started with zero at the western (left) end. Although these are shown with zero at the same lateral location, they may not have aligned so exactly, but each zero was on the edge of the western churchyard/garden wall.

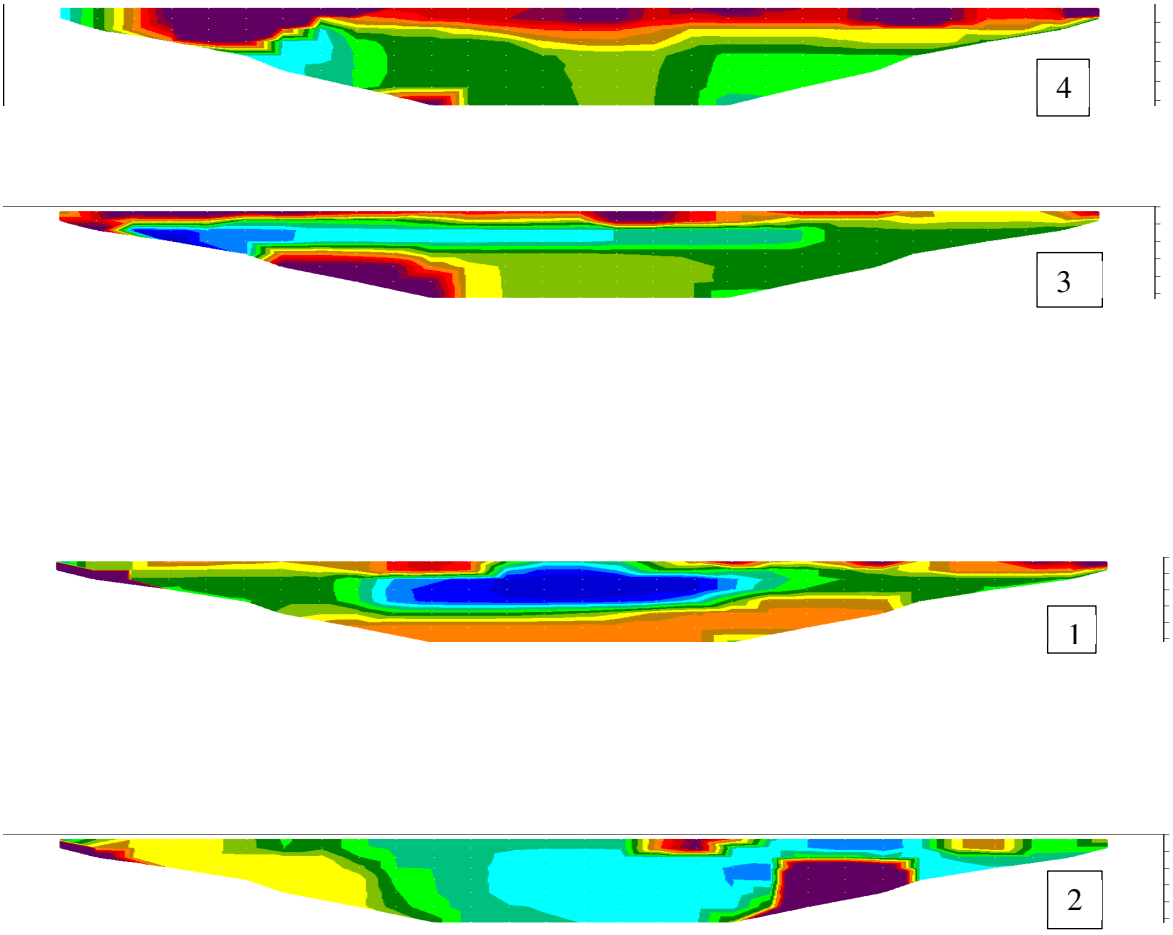

Figure 3.1. The four Electrical Resistivity Tomography profiles as aligned and at scaled distances apart. North is at the top.

The profiles are shown individually in figures 3.2 to 3.5 below.

Line 1 was close to the wall separating churchyard from Manor House, parallel to the wall but 3.0 m south of it. Although the profile is shown as flat, it was mounded up by about 0.5 m from the zero point under the large yew trees, from 10 m to 18 m approximately. The profile is shown individually in figure 3.2.

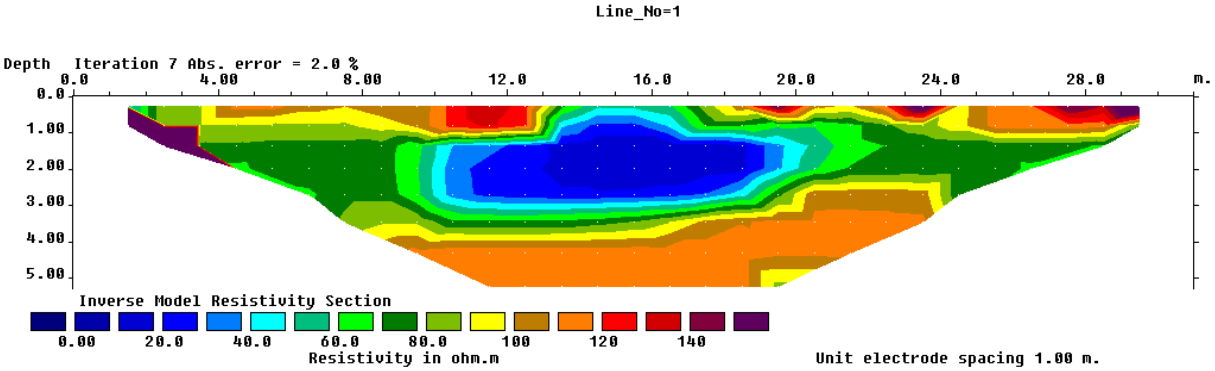

Figure 3.2. Line 1 profile.

Line 2 was as close to the church as possible, 10.8 m from the wall, 7.8 m from line 1. The line rose in altitude gently from zero by about 1 m over its length. It is shown however as a flat profile in figure 3.3. The resistivity scale matches line 1.

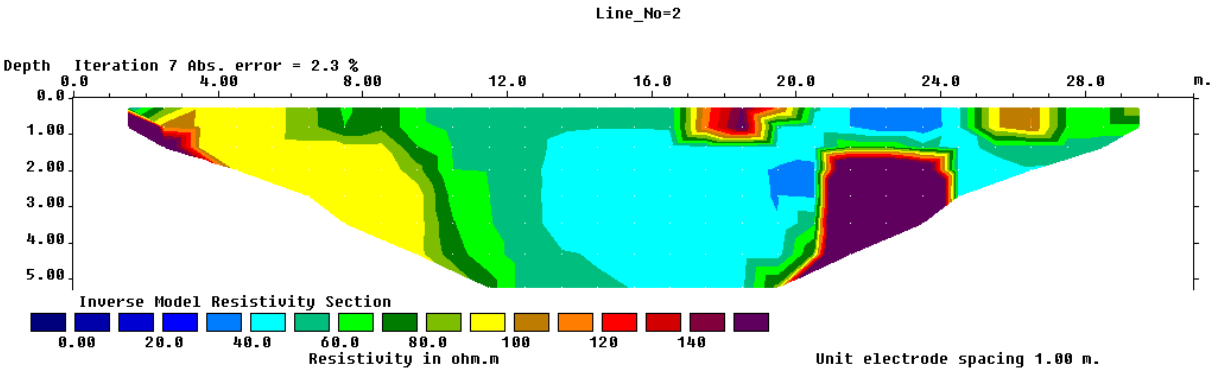

Figure 3.3. Line 2 profile

Line 3 was in the Manor House garden, 5 m north of the wall (the wall was approximately 0.3 m thick, and this has to be allowed in calculation of separation from line 1 of 8.3 m. The profile was flat as shown in figure 3.4. The resistivity scale matches that used in profile 1.

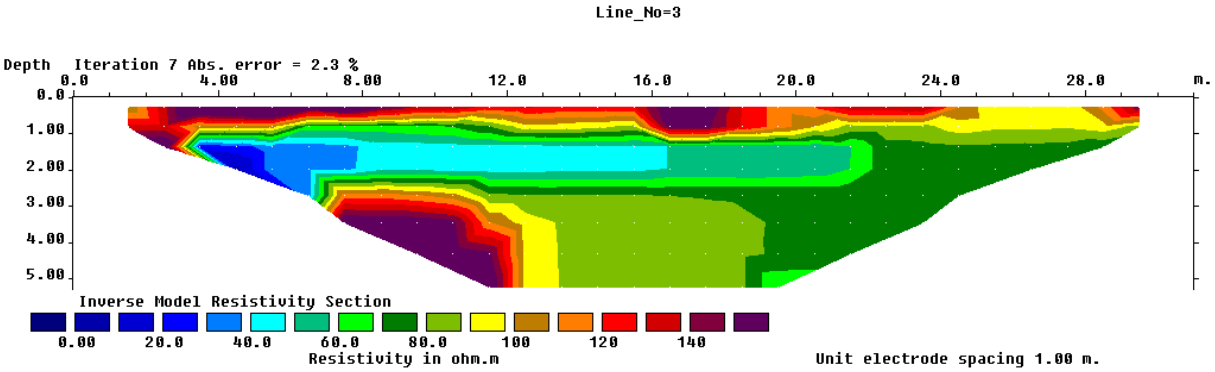

Figure 3.4. Line 3 profile

Line 4 was 5.3 m further from the wall, to cover a spot mid-line indicated by the radar survey as being significant. The profile was flat, as shown in figure 3.5. The resistivity scale matches that used in profile 1.

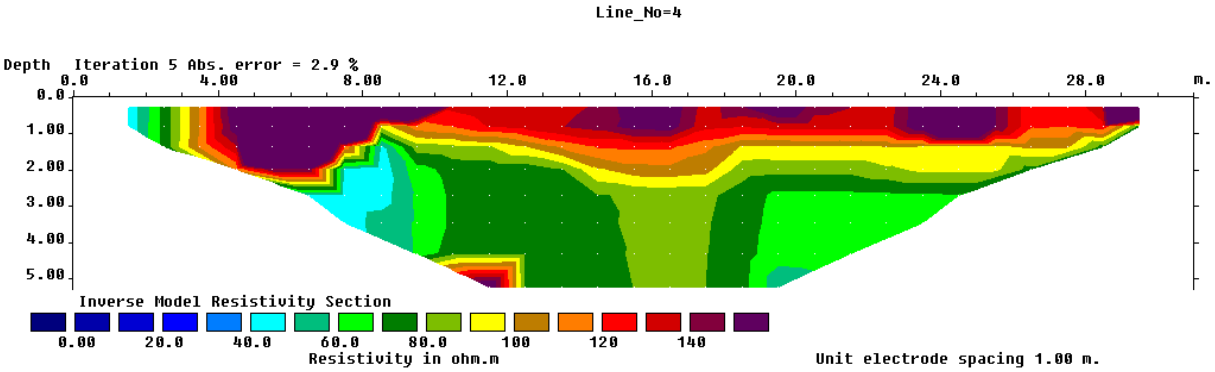

Figure 3.5. Line 4 profile.

High resistivity areas within the top 1 m, just below the surface are likely to represent grave features in the churchyard, and lawn dressing effects within the garden and are not generally studied in this report, although it should be noted that the large feature from 4 to 8 m in line 4 may be an archaeological feature, and may be related to the large buried feature between 8 and 12 m, below 3 m depth, seen in line 3. Note that the small feature at the lowest corner of line 4 at 12 m is most likely to be a single point error. The radar also shows a large shallow feature here.

The interest occurs principally at depths below 2 m down to 4. The orange layer at the base of line 1 may be a natural effect over the large area, but it steps up slightly between 20 and 24 m. As its shape is very regular, it is quite likely to be an archaeological feature.

The main feature showing in line 2 is also at 20 to 24 m. This rises from the base of the plot, below 4 m, to within 2 m of the surface. Its shape is very regular, so it is likely to be archaeological. It could represent the tunnel (the void would not show differently from the outer masonry) or it could represent an ancient wall, although its thickness up to 4 m makes this less likely, although if the cross section was oblique to the profile, it would appear wider. The profile passes close to the end of the 1993 kitchen block at this point. It is possible that the tunnel is deeper than the foundation excavations but surprising that it was not noted then. It could be that this is a separate feature and the tunnel was elsewhere.

Line 4 in the garden shows a very obvious feature extending down to the base of the plot from 15 to 18 m. This does not appear like masonry, as does the feature in line 2, but shows a very distinct change in moisture levels, and could well represent collapse of soil into a broken structure.

This does not show anything like as well defined in line 3 although there is a broad area of raised resistivity, but more importantly, a thin, flat ‘slab’ of lowered resistivity extending up to the 20 m point at 2 m depth which could be a relevant feature, although it is difficult localize an area of interest within this length with any great confidence.

3.2 Radar results

There is a lot of data to present here in two main forms. This takes many pages to get the maximum amount of benefit from all that they graphically reveal. After the twelve pages of 3D Preview representations, the depth slices are presented.

The 3d Preview uses grid lines or line slices in conjunction with a depth slice. Here our data uses the same most important depth slice of 1.2m each time and changes the grids. This is because the grid lines convey an exceptional level of visual information and the attached x and y grid lines slices convey depth information. As you spend time looking at what the line slices reveal, there may be occasion when you want to see if the depth slices reveal supplementary evidence.

To understand the data, you must **first locate the red lines**. The main change with red lines is where we move from south to north or from the church side to the demolished mansion of the Trenchard family.

The twelve results below move in a consistent way that centres on a major feature that was not immediately apparent. But working through the focused line slices, the evidence seems to become ever stronger as we move from the church wall to the basement structure.

Ground Penetrating Radar - 3d Preview - is overleaf.

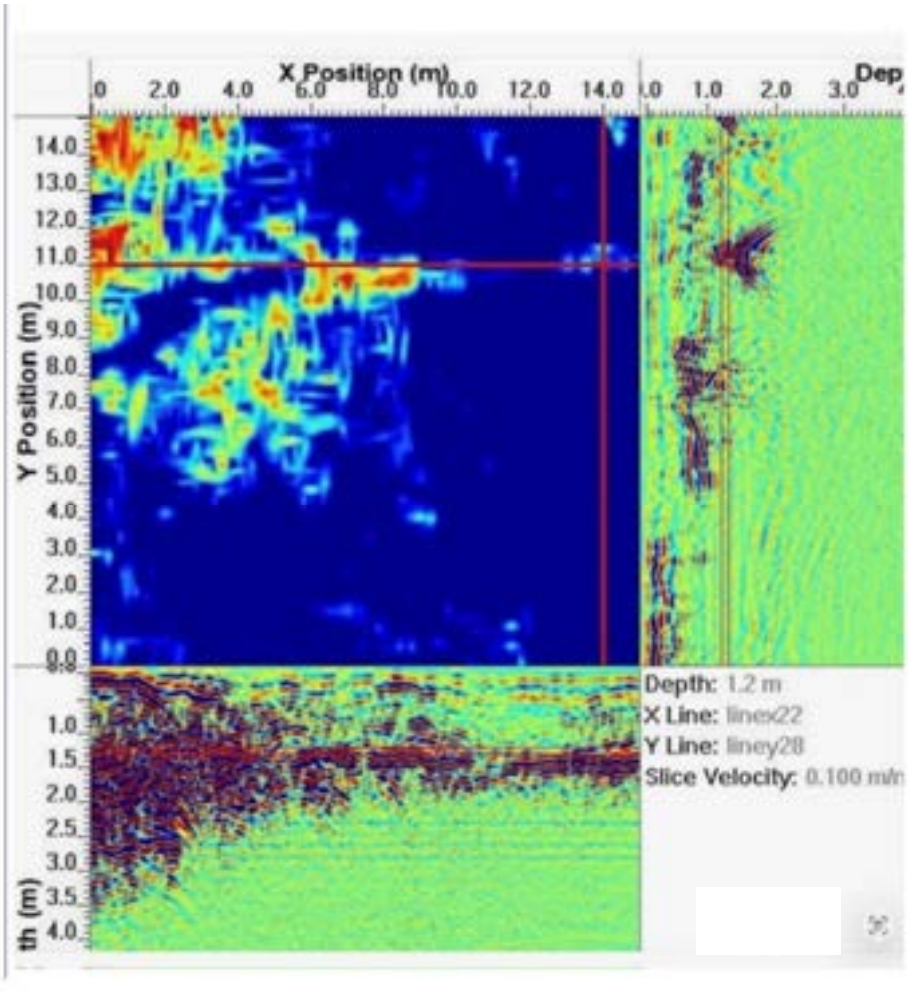

Figure 3.6. Observing data at 1.2 m.

Figure 3.6 needs you to look at where the two red lines cross. At this red cross point, we are located on the lawn only about 4m from the church wall. To the right is the green depth slice representing line 28 on the y axis. Below is line 22 on the x axis and think of these as where an archaeologist would draw a section where the ground has been cut deep down by 4m where the red line is positioned.

The are two red vertical lines that are close together at 1.2m to 1.3m deep in both of the green profiles. The parallel red lines in both the x and y line slices are providing the data to give us the blue depth slice. This takes some understanding, but the powerful data processing captures strong radio reflections of density change and presents an impressive image. If it helps, imagine folding the two green wings down 90 degrees. Only when you can visualise how this model operates, should you start to work through the rest of the pages.

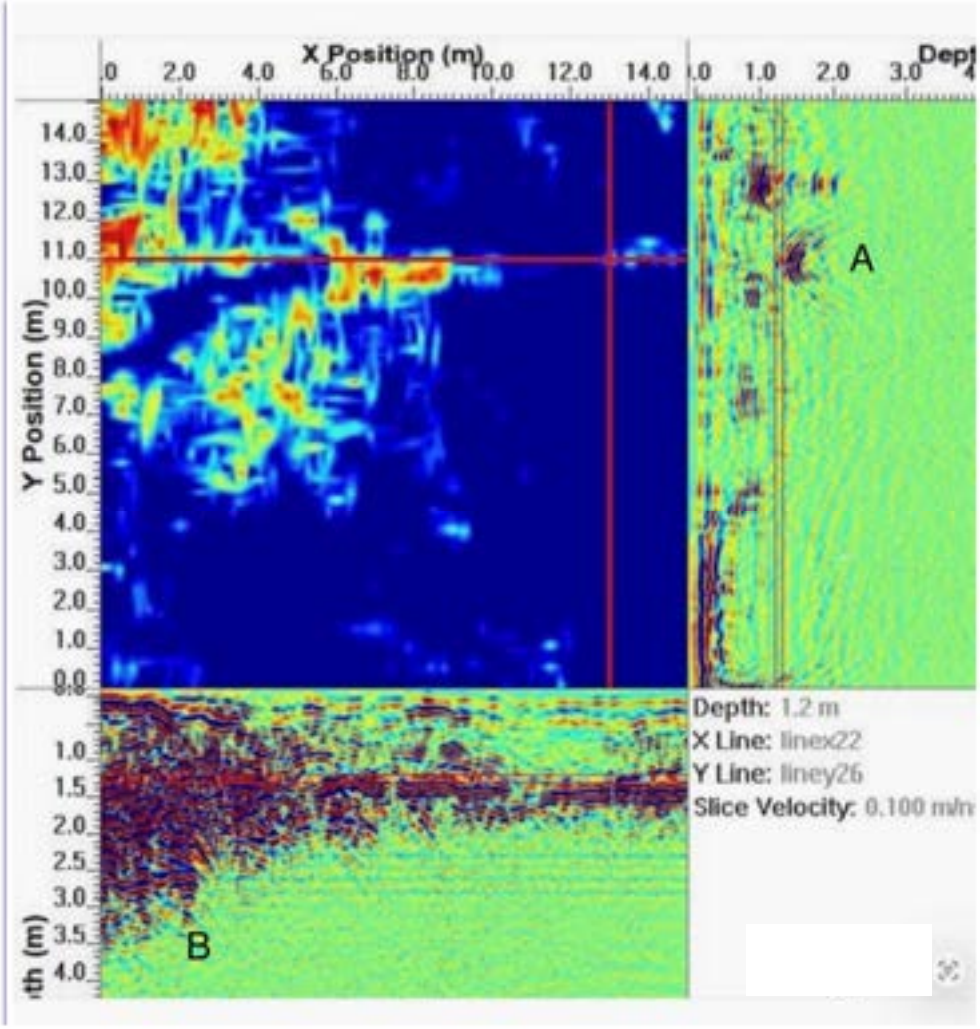

Figure 3.7. Red lines crossing

Figure 3.7 needs you to look at where the red lines cross. There are some yellow weak reflections at this point. Move to point A and alongside, you will see a strong red and blue c shaped blob feature. That is a hyperbola and is what geophysicists want to find. The hyperbola shape is derived from radio waves approaching an object, passing over it and finally moving away from it.

If this is a tunnel, there are hard materials in the roof of the tunnel at this point. Move down to the green line slice below and see line x22. There is evidence of a fairly consistent strong signal at 1.5m. This line slice is more definitive than the depth slice. Point B is indicating a deep basement structure, that the owner is aware of. Mr Devoil, built the new property and had significant interaction with the old building during the construction phase.

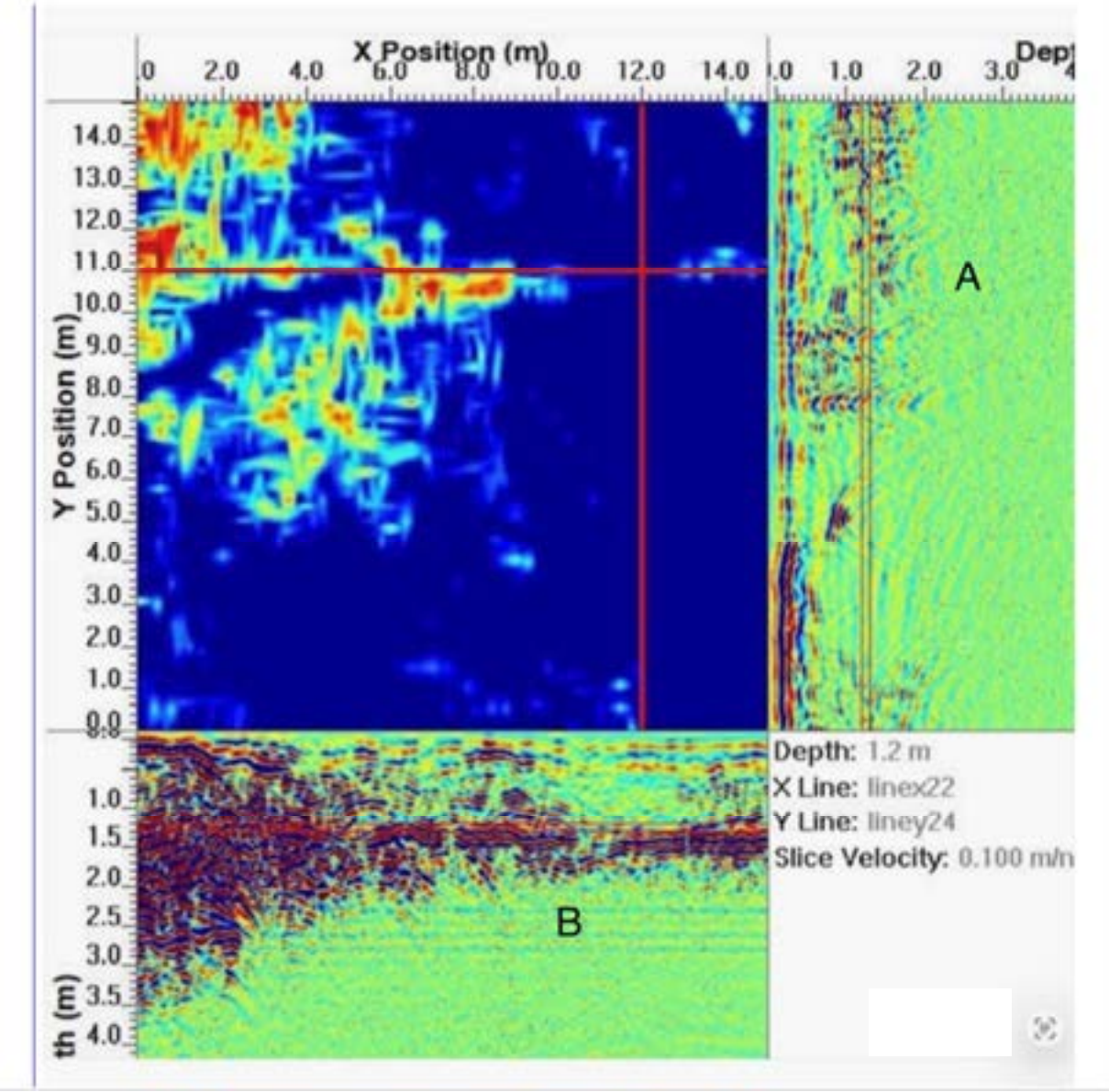

Figure 3.8. Red line y24

Figure 3.8 has the red line y24, which is 1m to the left when compared to figure 3.7. Look carefully for the hyperbola next to point A. It is there, but not very strong. We could make it appear stronger by reprocessing the data, but that would also enhance the background noise and may not be of any great value.

Point B on line slice x22 is the same slice as figure 3.7 above. This is because we want to stay central to the possible line of the tunnel.

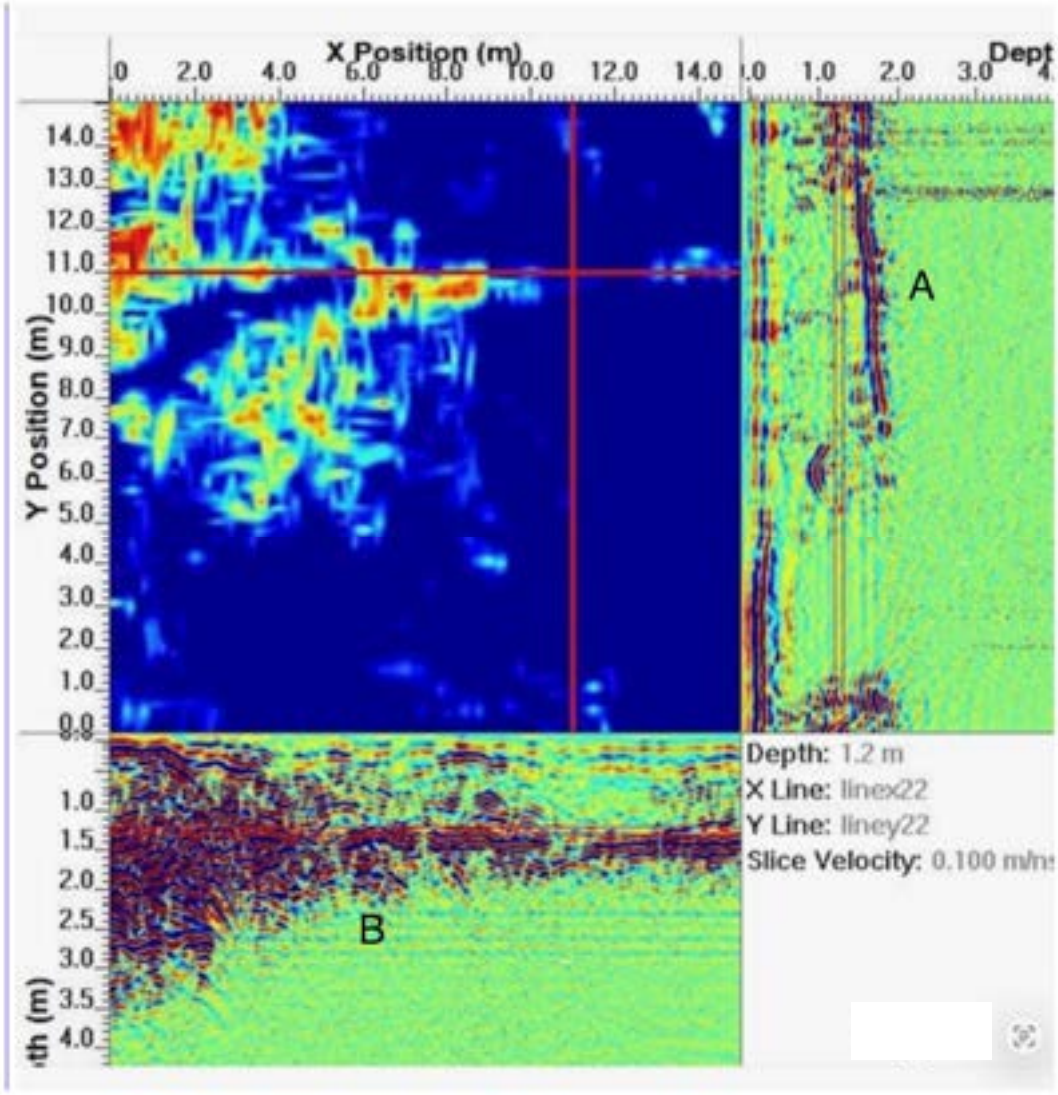

Figure 3.9. Change at point A

Figure 3.9 now shows something new developing at point A. A hard layer appears, that seems not to be horizontal, but falling from about 1.5m to 1.8m across about 6m. The reason for this is not clear and may need excavating to determine exactly what the radar is seeing here. There is a chance that line y22 could be following right over the top of a drain. As the drain is deeper than the 1.2m depth slice, we cannot see it on the blue depth slice here, but could be checked on the appropriate depth slice.

Note how point B shows that there may be distinct sections in whatever is happening along this feature.

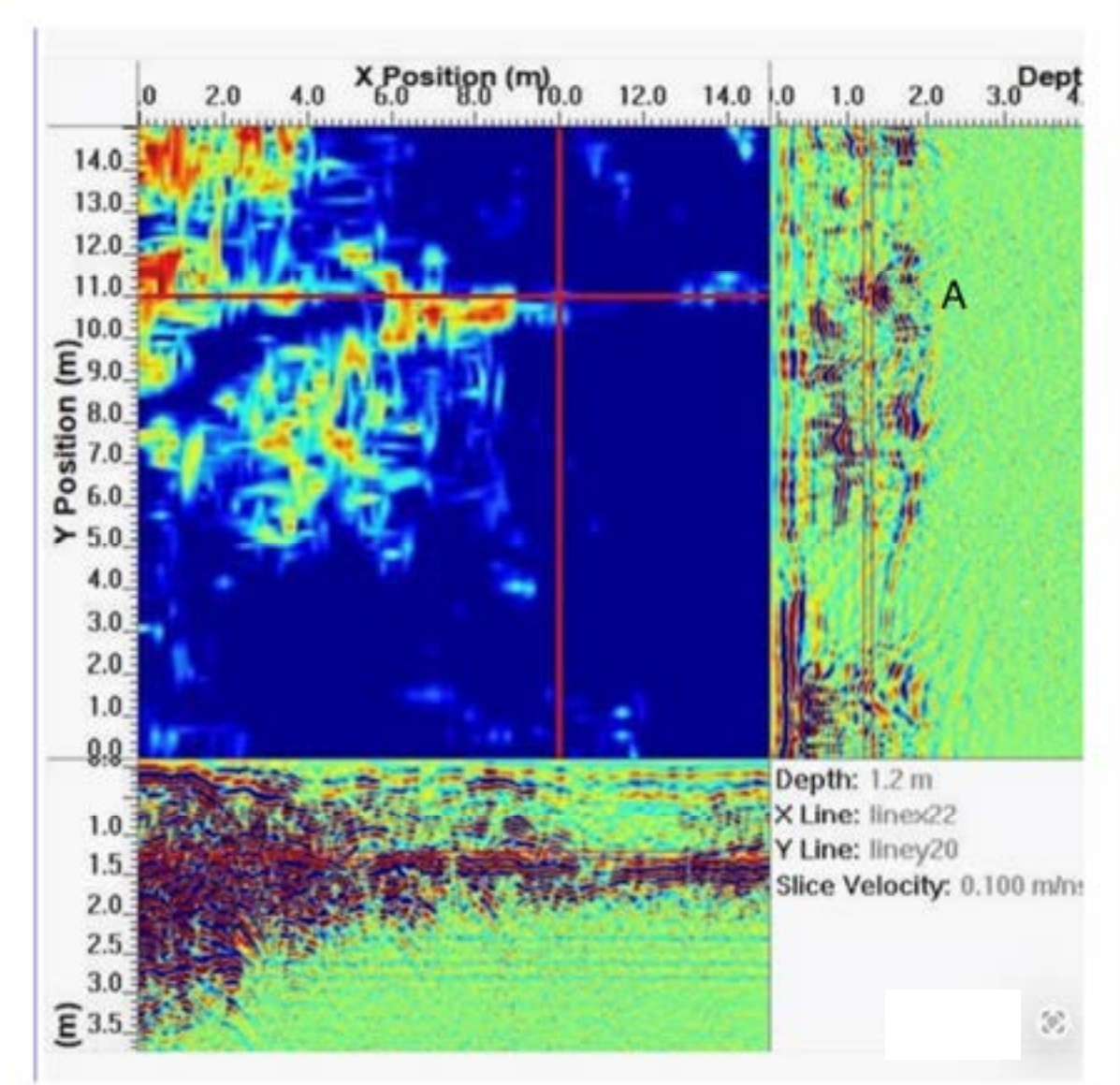

Figure 3.10. Details 1 m north.

Figure 3.10 moves another 1m north along the tunnel but is not so central. Point A now has three reflections directly around it. Two are hyperbolas and the one below A is slightly inverted. There is the possibility that we are seeing more defined structure starting to appear around the proposed tunnel.

It is worth mentioning that two things can determine how angular the hyperbolas are. The first is the size of the feature being detected. So, a large diameter pipe would have a gentler curve than a narrow pipe. The other variable is the speed at which the signal is moving through the soil. The software allows for the calibration of the speed in order to get the exact depths.

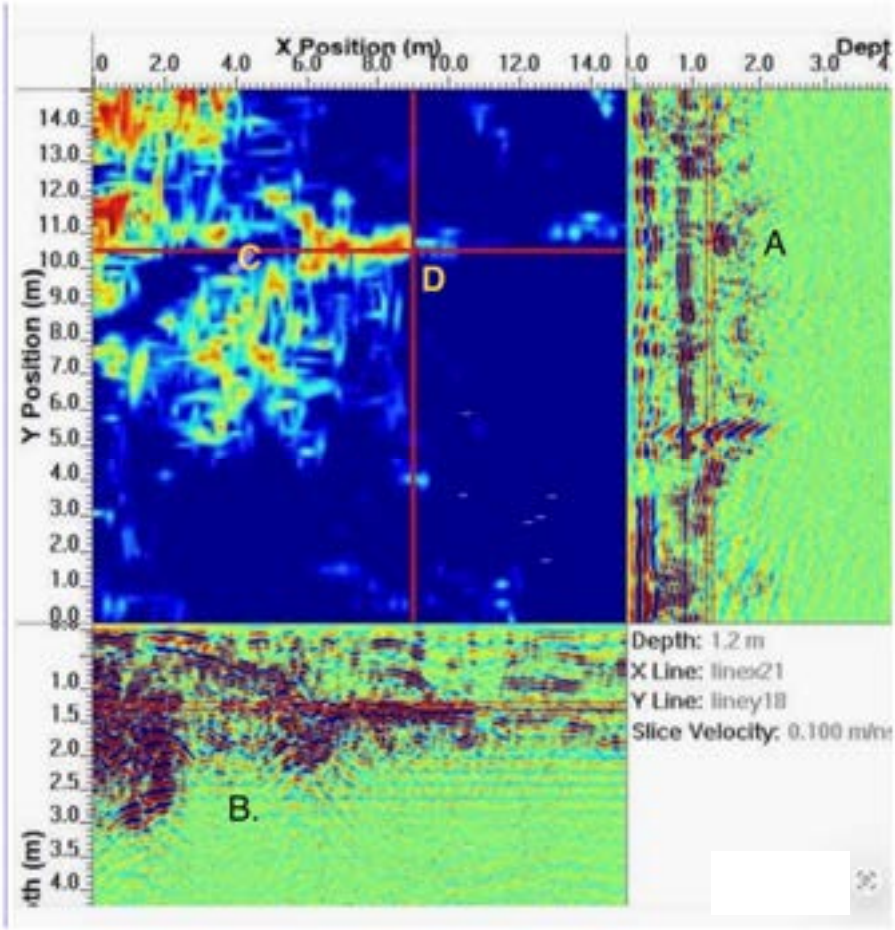

Figure 3.11. Move 0.5 m down

In figure 3.11 the red line moves down 0.5m to get back to the middle of the possible tunnel line.

Point A has a good reflection where we would like see roof structure. At point D there is a big transition to a red and yellow roof feature starting. If you follow the red line down from D there are two angled reflections in the bottom-line slice that are hard to comprehend. B and C are in the middle of the tunnel entrance and there is a moderately clear area above B which could indicate a once empty area that now has filled up with small particles and soils.

It should be noted that line 4 using ERT follows GPR Y18 through point D and it was very pleasing to see that a light green vertical column aligns perfectly with what the GPR shows. The two survey techniques seem to complement each other to a high degree. See fig 3.9 for more information about this excellent correlation.

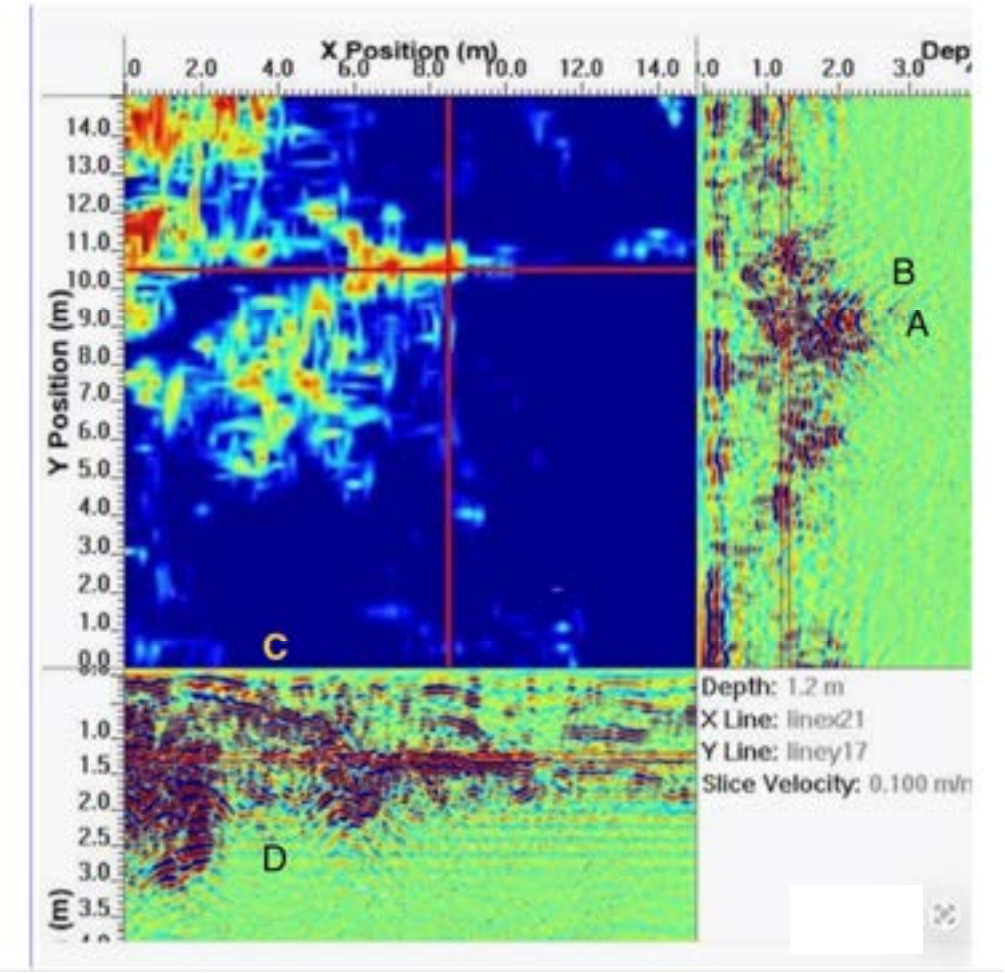

Figure 3.12. Tunnel entrance structure

Figure 3.12 now has the red lines on the red tunnel entrance structure. Point B has shallow structure, but A shows a very large structural element that goes deeper. The narrow gap between A and B could be showing potential for a former void.

Point. C is very interesting because we are seeing a descending structure. If this area is a historic entrance, are we looking at steps or a ramp and a roof covering. This would be a notable feature to excavate, if possible, in the future.

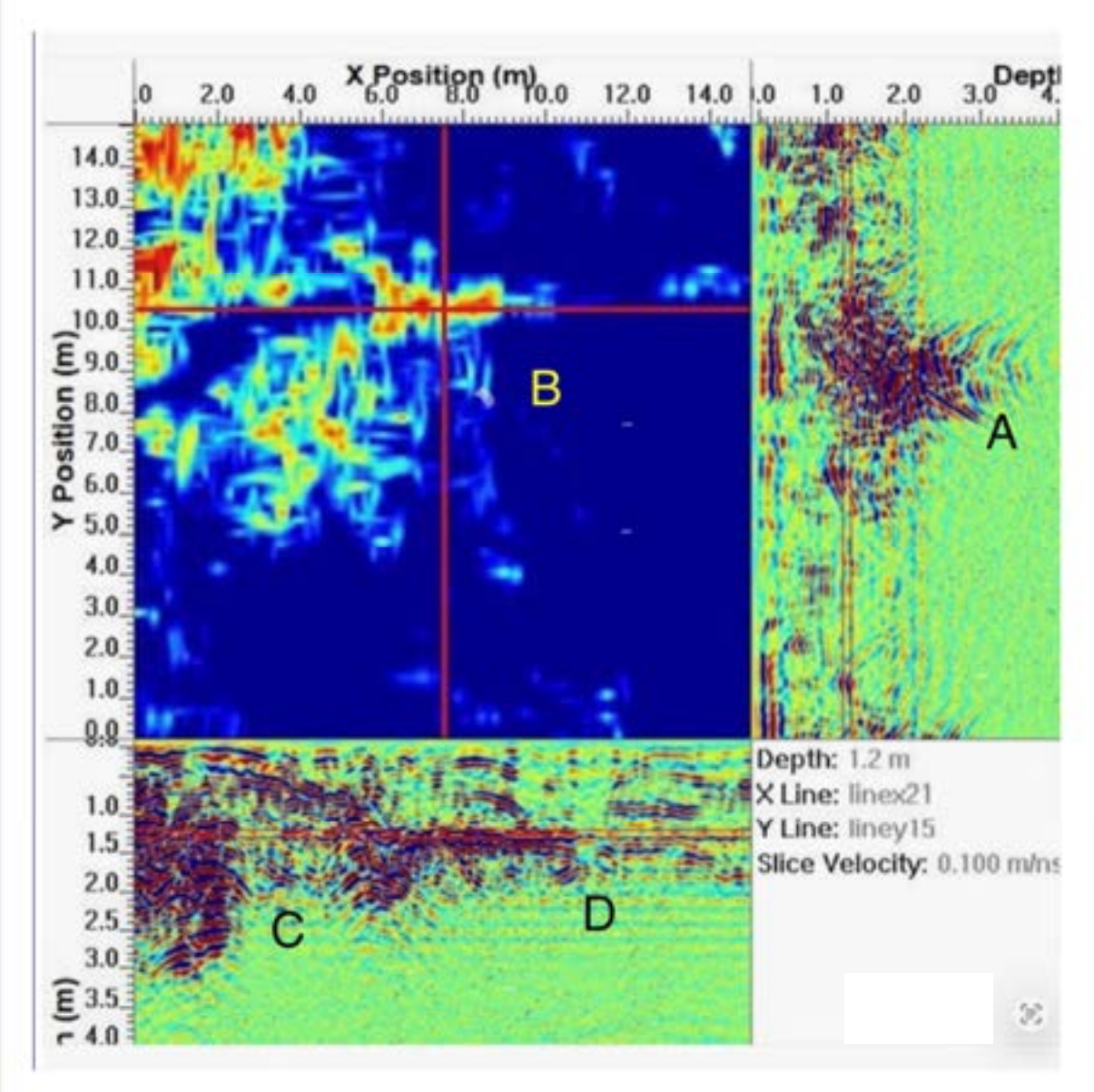

Figure 3.13. Structure to west

Figure 3.13 shows significantly more structure to the west of the red centre line where point A denotes a mass of deep material. At 1.2m deep, point B has some structure showing just showing in the depth slice. There is something to investigate in the area along the west side of the tunnel and is further reviewed in figs.3.16 and 3.17.

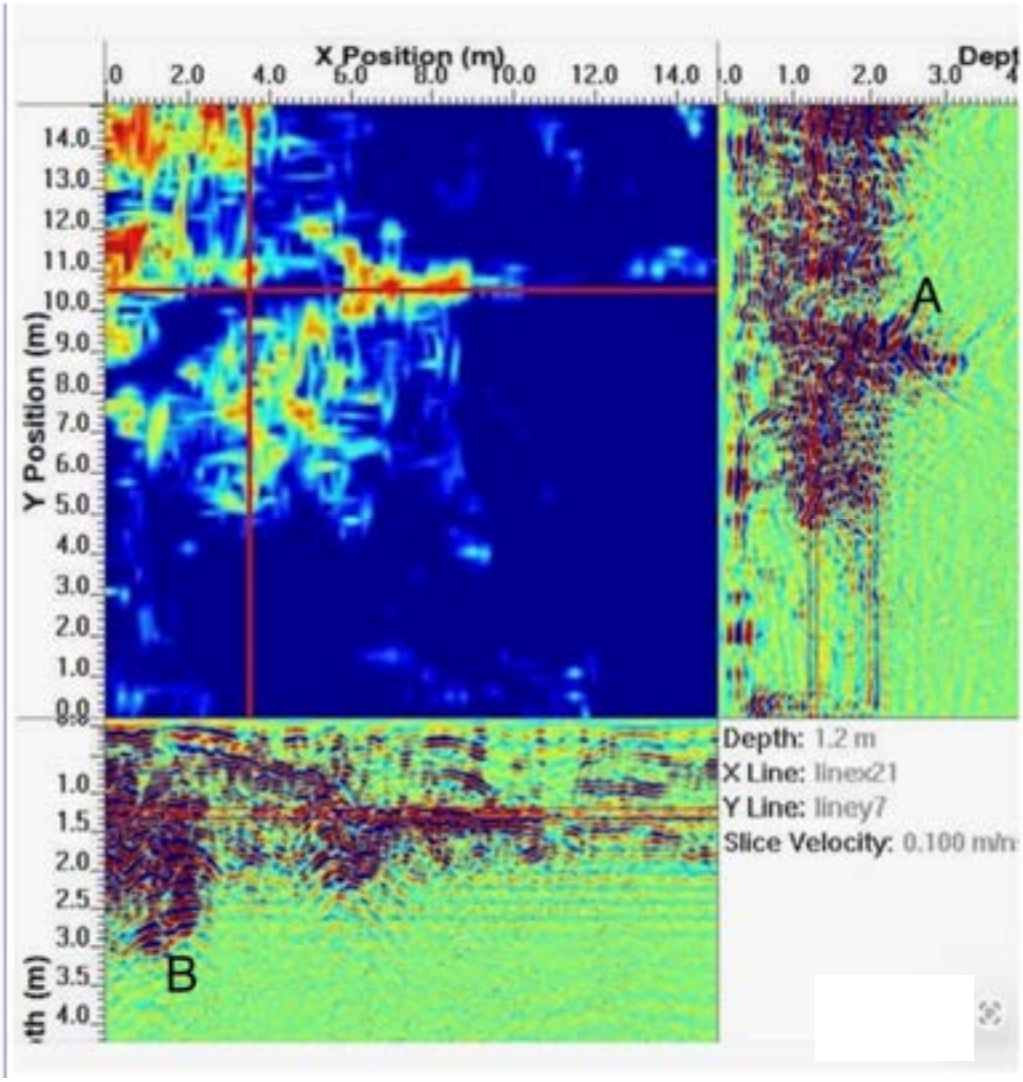

Figure 3.14. 1.5 m north

Figure 3.14 is 1.5m north of figure 3.13 at an interesting visual point. A blue passage of high absorption ground seems to be going under structural material to perhaps what is a tunnel. The Y shaped entrance appears relatively symmetrical and purposeful. Point A shows 1m of soil above the structure and a considerable layer of hard reflective material with multiple hyperbolas to at least 2m deep.

Point B is looking horizontally at a wall of hard reflective material next to relative voids to the left and right. Was the feature perhaps blocked up or how else do we interpret a large collection of hyperbolas between and descending void to the left and a level passage ceiling to the right. There is only one way to prove this, by excavation.

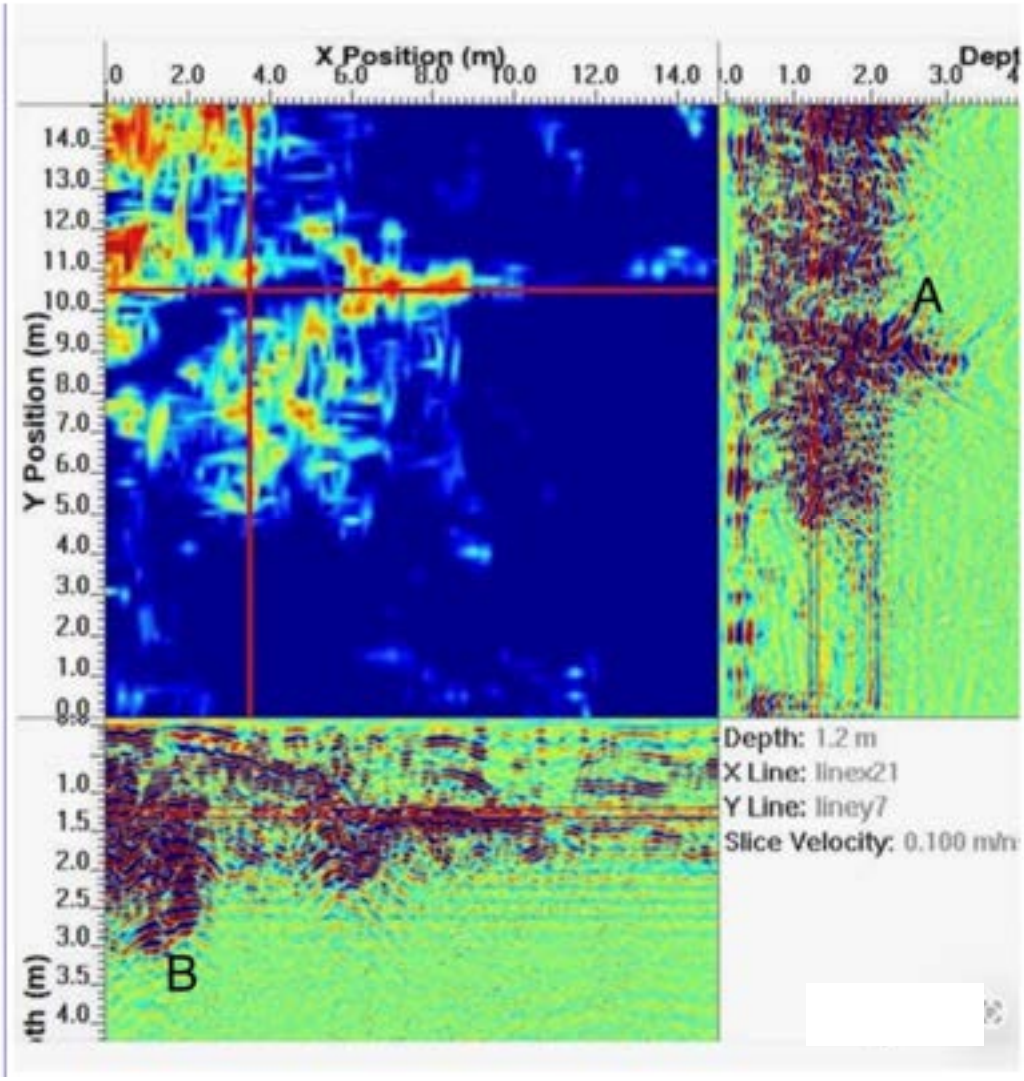

Figure 3.15 x and y slices

Figure 3.15 is promising in what it conveys in both the x and y line slices. The red lines converge in what might be a passageway, now filled with soft soil or sandy particles. Point A shows a green void 1m wide and about 2m tall with some more granular layers now forming a layer across the lawns shallow sub layers.

Point B shows the point where the red line moves from blue void to yellow. It is the sheer verticality at B that extends from 1m down to 3m and tends to support the evidence for a passageway at this point.

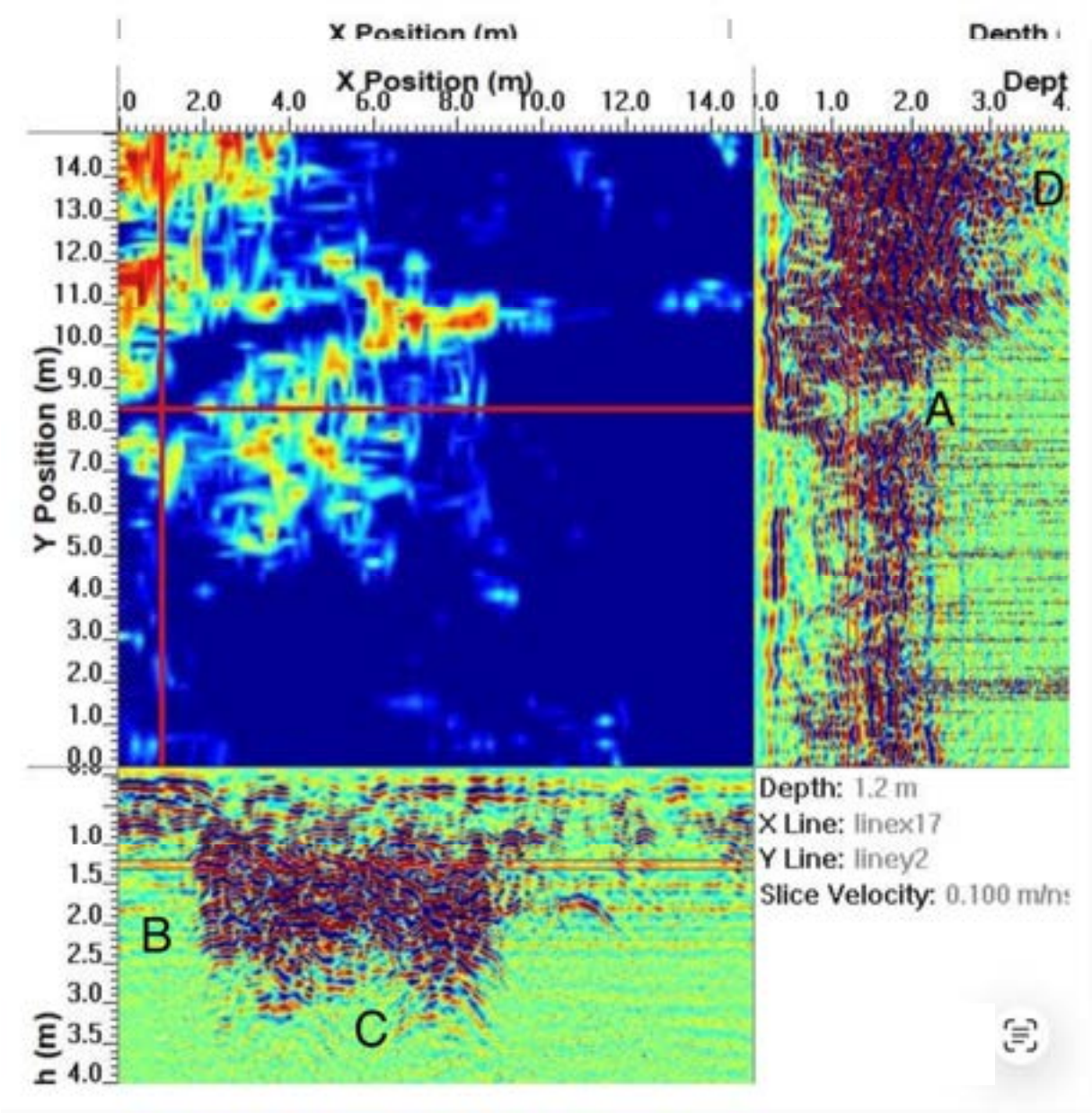

Figure 3.16. Turn in passage

Figure 3.16 has the red lines centrally in the passageway where it appears to turn. Points A and B are both very clearly show 2m deep soft filled voids where small particles have inundated the chamber next to the basement areas from the old Manor House.

There is a question of just what the section of hard material is below A is for. It is even more defined in figure 3.15 and is something that seems to be square and roughly 6m by 6m. This is shown in the lower right-hand quadrant of the red lines of the depth slice as mainly yellow.

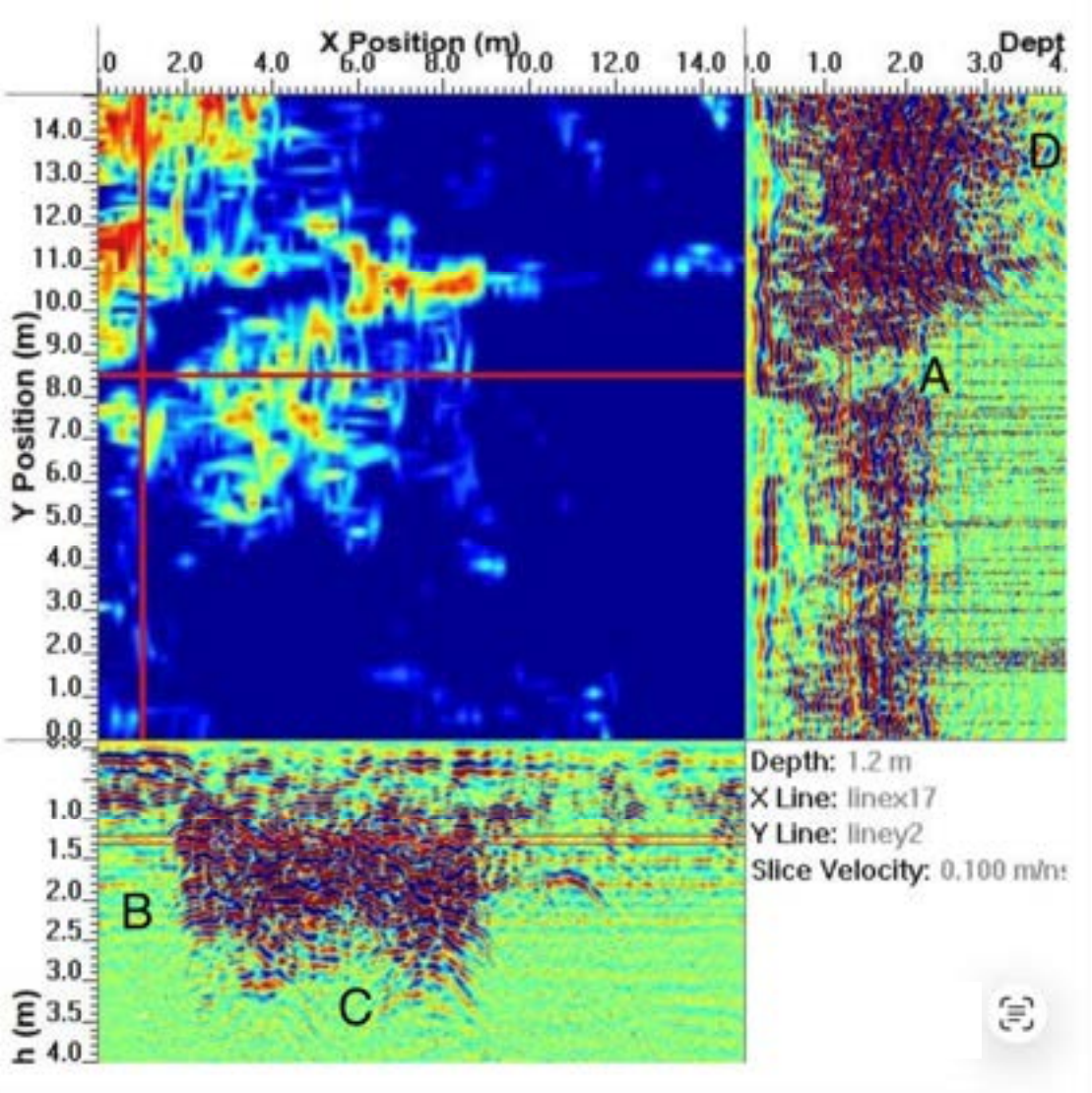

Figure 3.17. Vertical walls

Figure 3.17 further demonstrates the vertical walls at A and B very clearly and precisely. The radar is doing well to give readings down 4m at D and such a deep strong solid structure. Point C is not as substantial as the main basement but still represents significant construction. What could be the purpose of these structures be, and are they related to the main house or are they related to the tunnel as they are well below ground level, by today's standards.

Ground Penetrating Radar - The Depth Slices

The depth slices are easier to understand and because of good ground conditions are rather spectacular on first view. But it is easy to see things and think something has been found, only to then find you are too shallow for this to be possible.

We have mentioned that each depth slice is formed by processing the data collected whilst walking the 62 lines used in each grid. Ekko Project's latest version allows you to boost or reduce the strength of the data and colouring but has an automatic setting where it recognises the best overall contrast.

The slices are presented here in 100mm layers, so we get an incredible 10 images per metre of depth. This may seem excessive, but the upper layers in this remarkable garden are full of garden features, paths, walls and drains. The first image here is just on the surface but put the full Google Earth image and grids in context. From there we focus in more on just the depth slices to see the data in more detail.

DS.01

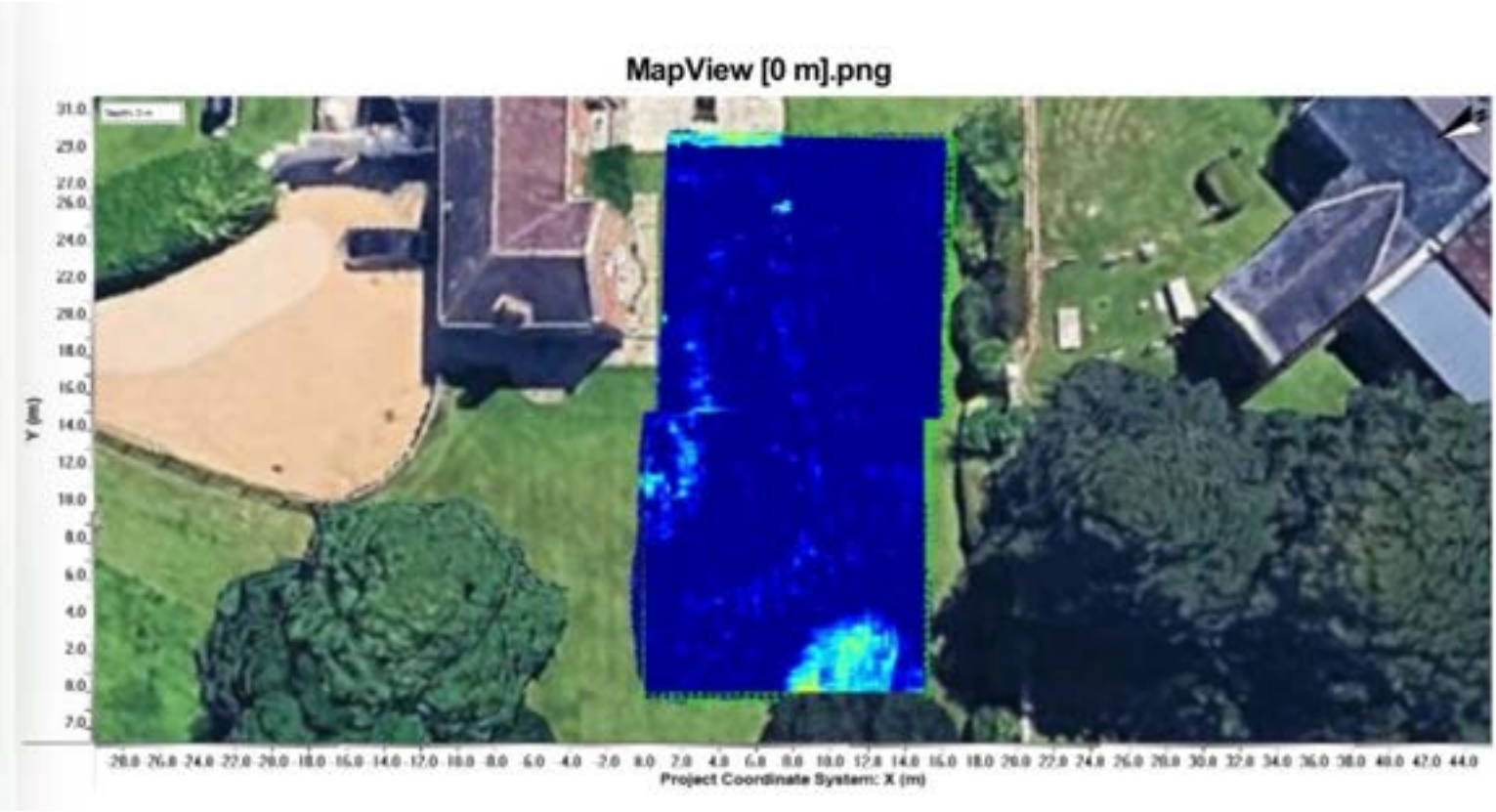

Figure 3.18. Depth slice 0 m, DS.01

This is effectively the ground surface, showing immediately under the grass.

DS.02

This depth slice is close to the surface of the ground and shows a red path on the right-hand side that leads to the church. We can confirm this, as there is a large gate in the church wall where you can see a kink in the wall.

Another large shape is an arc that seems to be a curved path that led to the church path from the lower left-hand corner. The bright red blob in the lower right-hand corner is tree roots.

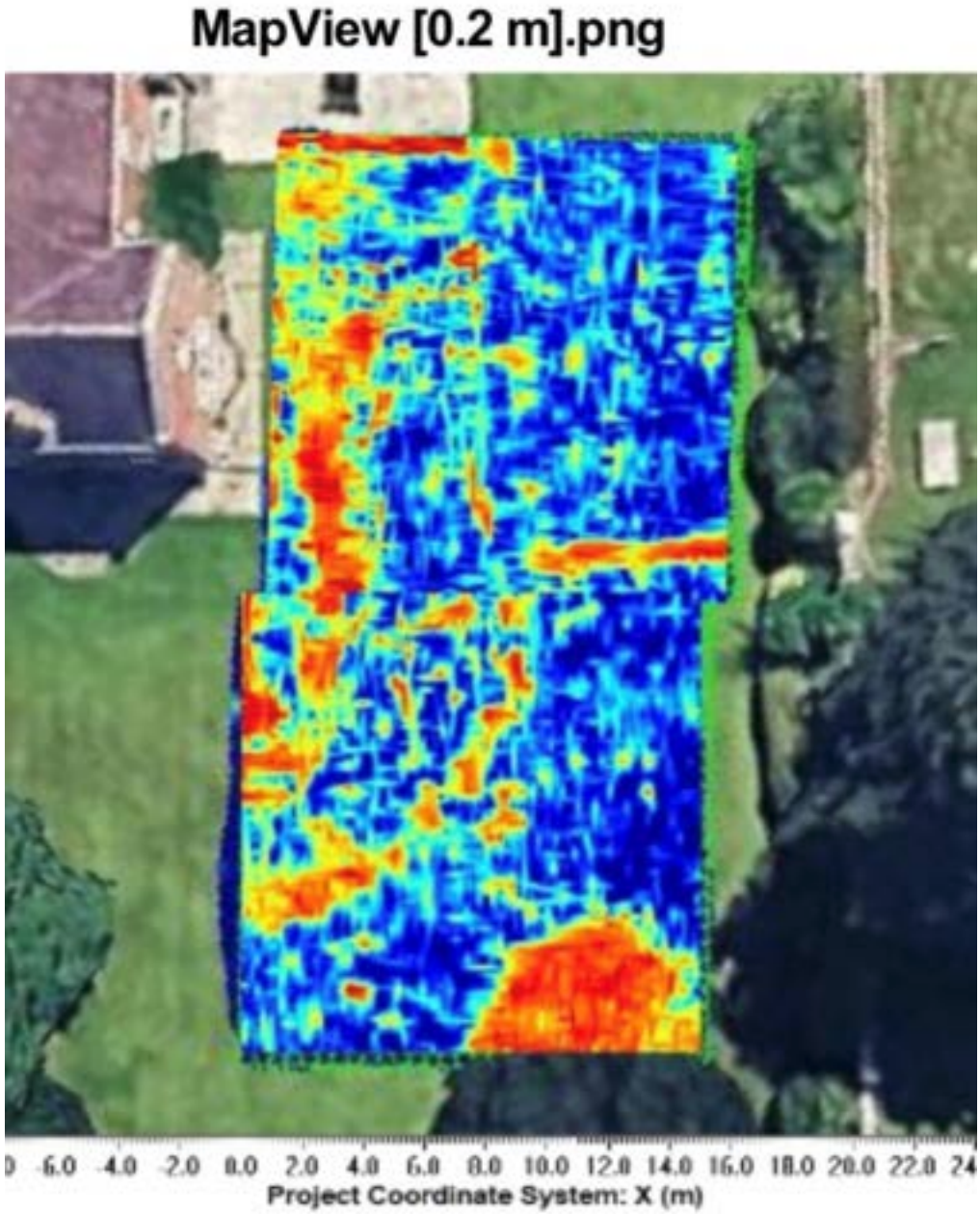

Figure 3.19. Depth slice 0.2 m, DS.02

DS.03

The arc and church path now seem to relate to a patio area that survives 300mm below ground level. There are shapes and possible shallow drains as well as the footprint of the original Manor House in red. The red is the highest level of radio wave reflection which will probably be brick or stone as it is dense and reflective.

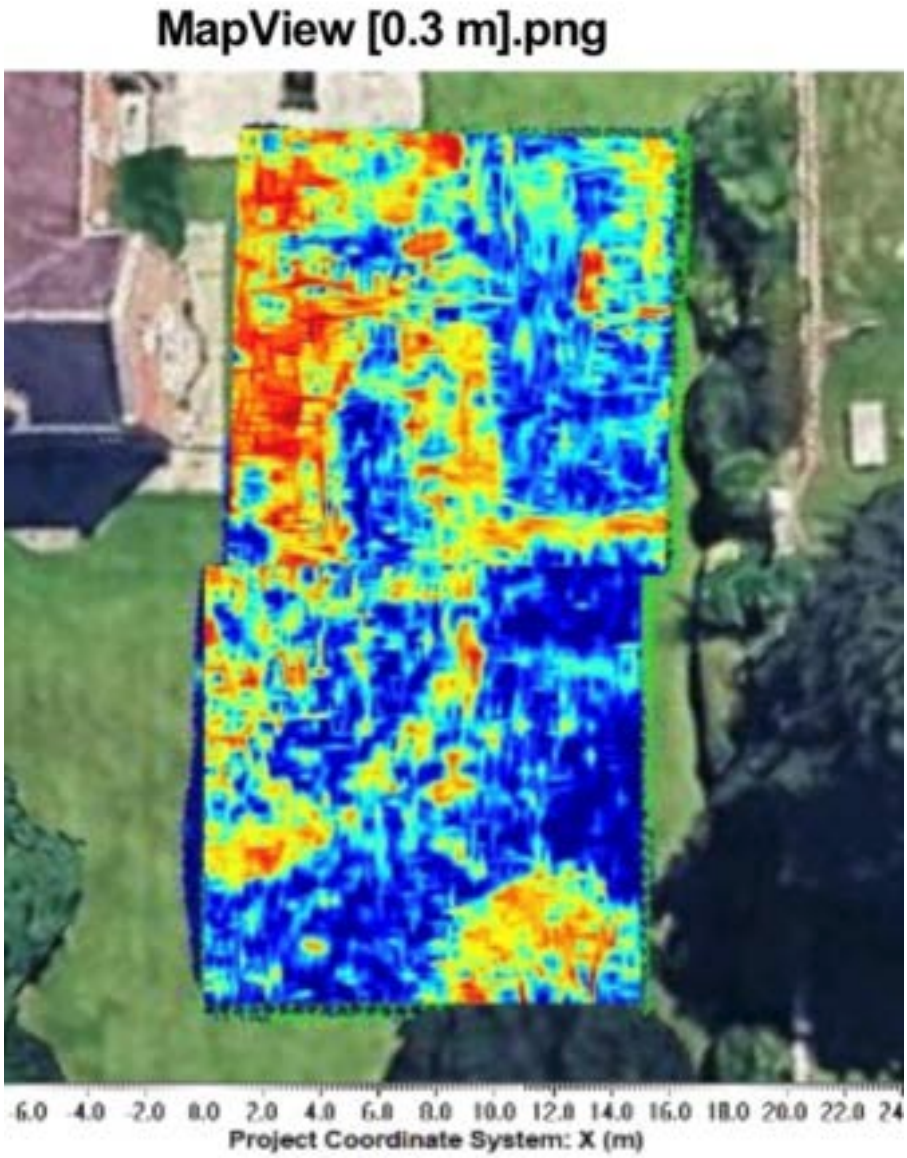

Figure 3.20. Depth slice 0.3 m. DS.03

DS.04

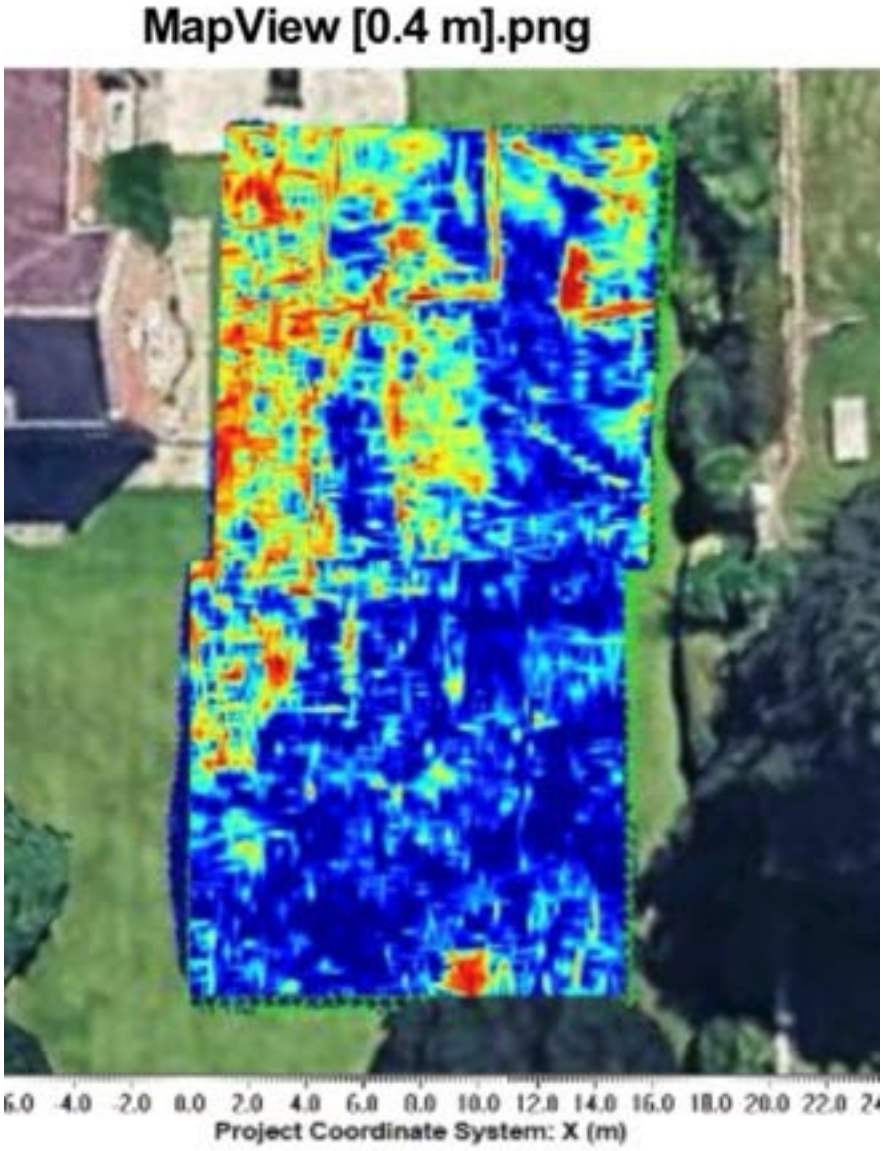

Figure 3.21. Depth slice 0.4 m. DS.04

At 400mm below the surface there is a big change in information where many line features make an appearance. Those researching old photographs and maps will be able to interpret some of these angular footings, garden walls and drains.

DS.05

The clarity and strength of some features have been enhanced and the strong L shaped feature on the right side is hard to interpret. Its purpose and age are not obvious and could be something to investigate in the future. The thickness of the wall or foundation might be a sign of great antiquity.

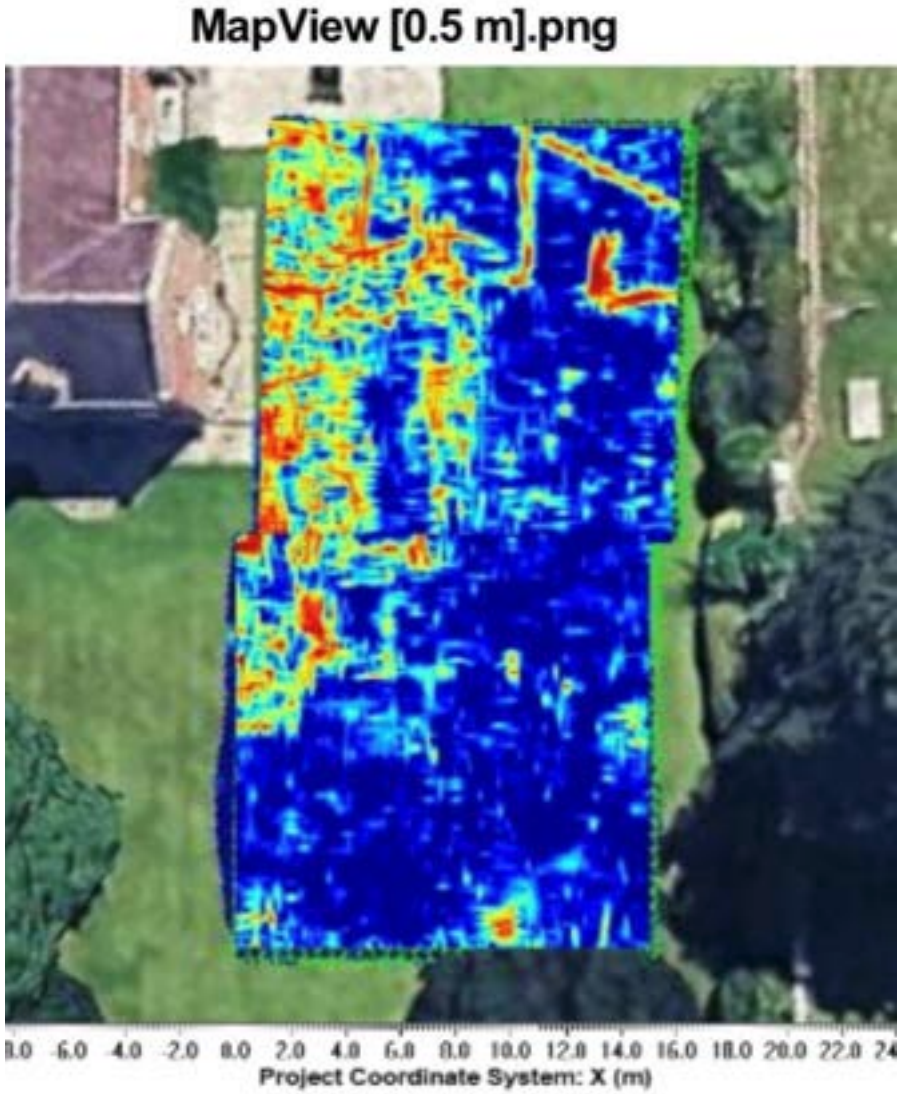

Figure 3.22. Depth slice 0.5 m. DS.05

DS.06

At 600mm or 2 feet down new shapes and positions are emerging. Foundations and rectilinear features are visible and are aligned with the old and new houses.

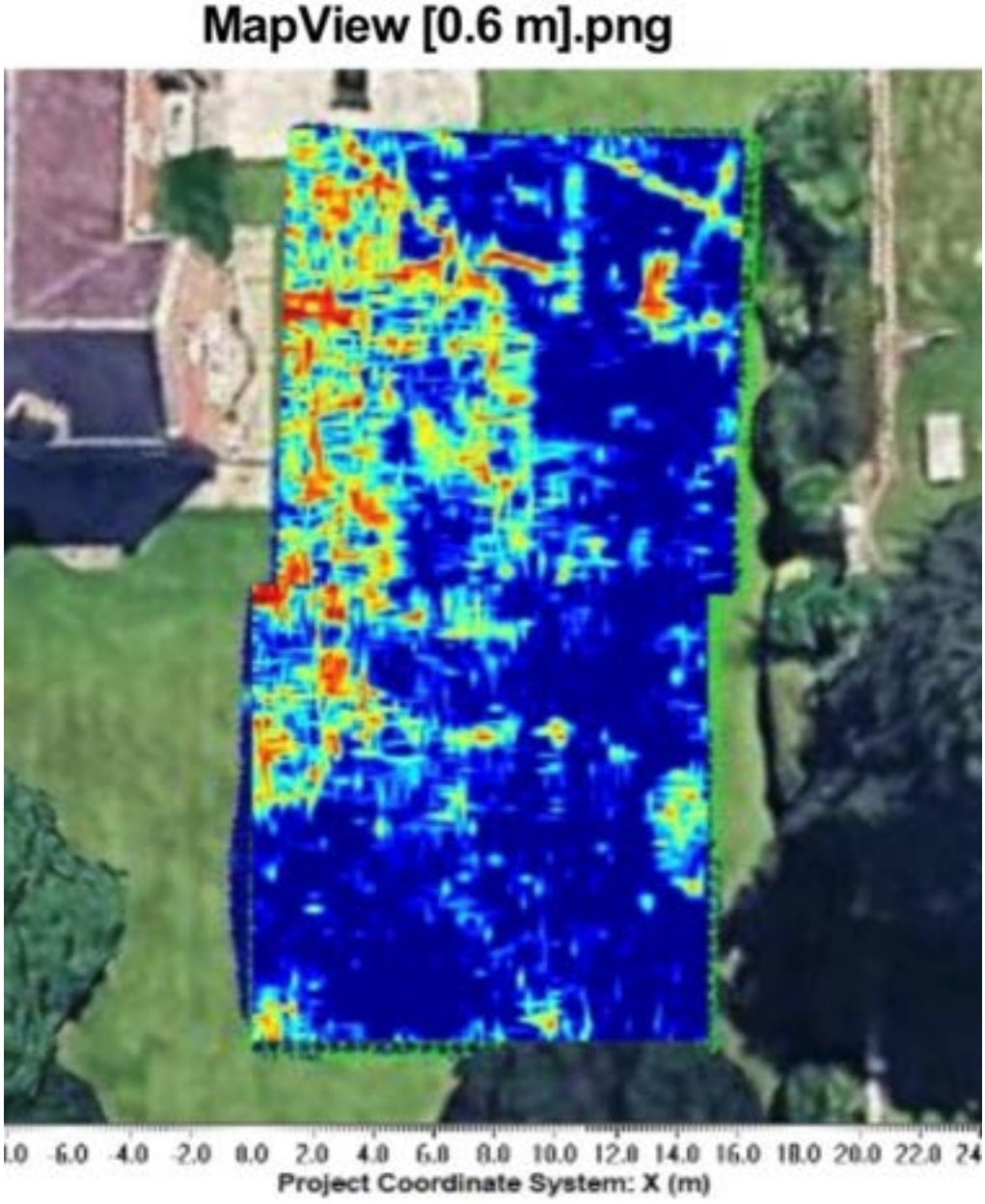

Figure 3.23. Depth slice 0.6 m. DS.06

DS.07

At 700 mm down more subtle clues are appearing regarding the buried former uses of the land. Having been up to the far east side of the site, where the ground is elevated, it is clear that water engineering has played an important part in the history. Ponds and streams still exist on the land above and is it possible we are seeing more interesting drains at this level.

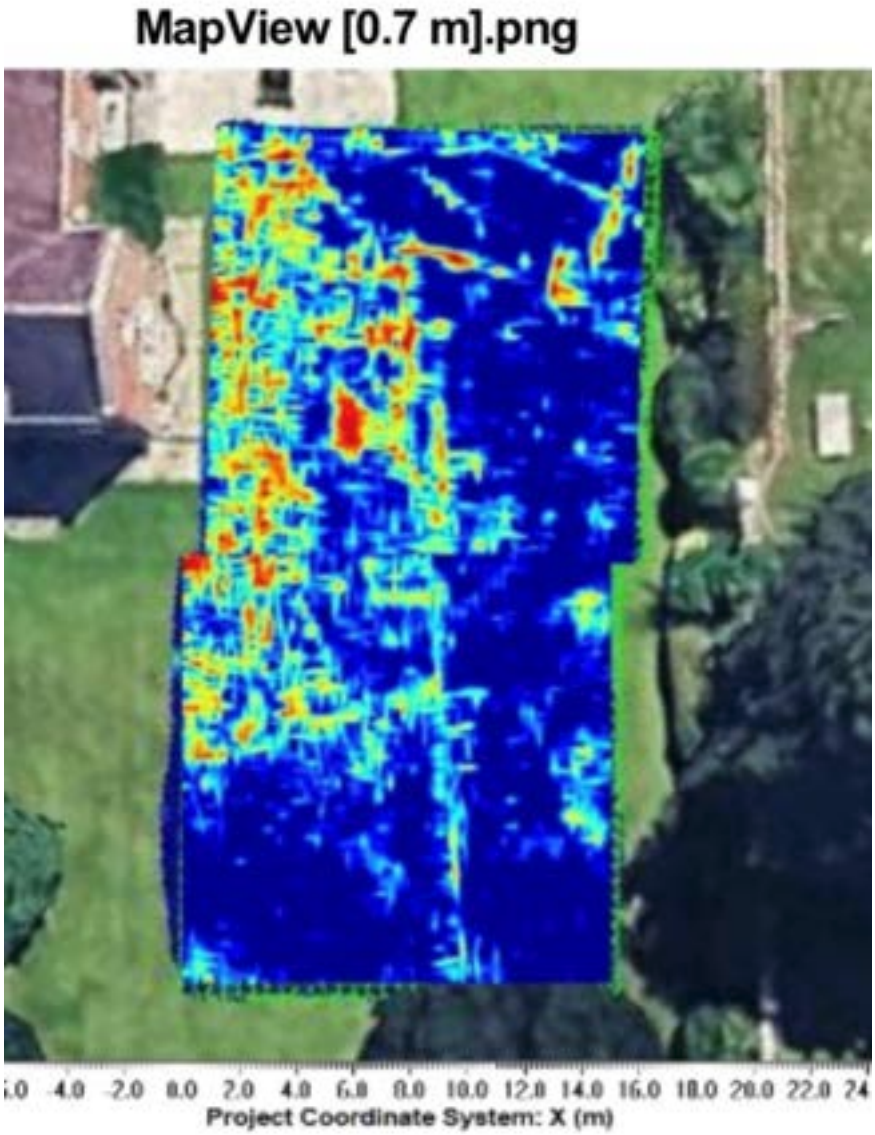

Figure 3.24. Depth slice 0.7 m. DS.07

DS.08

The strong vertical line running down the middle of the 800mm depth slice has connections to other lines and has a fall from east to west. The line is visible further up in DS.07 and is most probably for drainage. On the lower left side, a blue void is starting to appear.

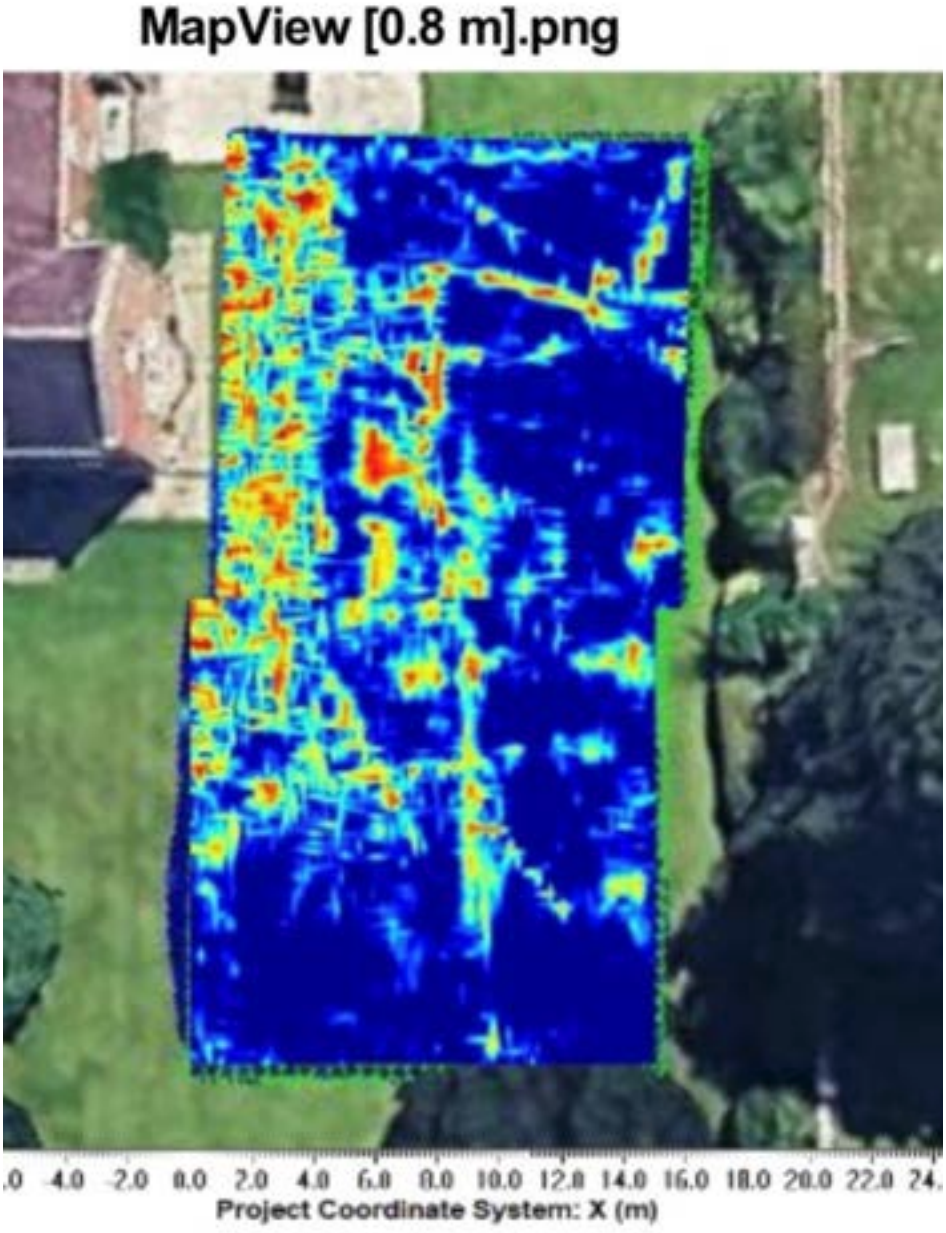

Figure 3.25. Depth slice 0.8 m. DS.08

DS.09

At 900mm the general surface clutter and drains are fading out and key structure is taking shape around the area of interest in the lower grid. The narrow blue curving void on the lower left side is longer and points to a new square blue void midway east-west. There is structure below this square (to be seen later in the sequence).

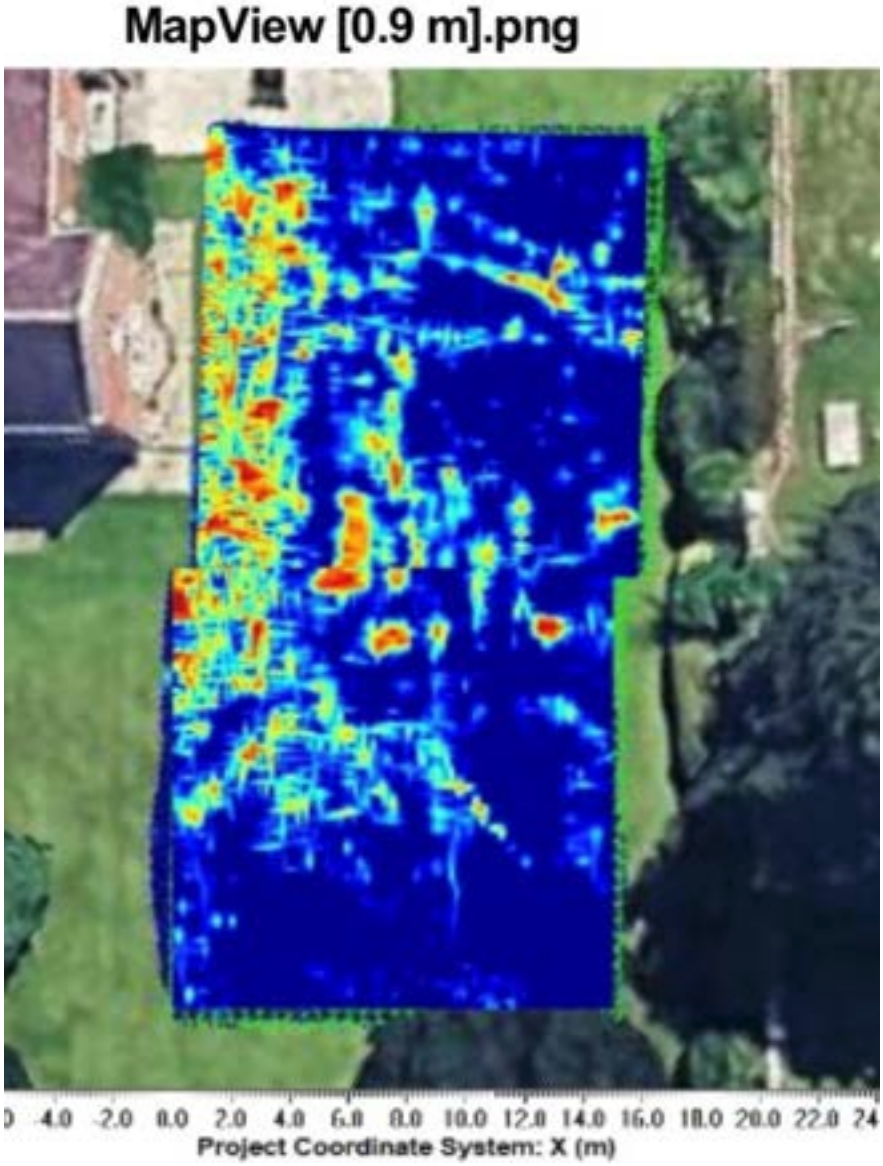

Figure 3.26. Depth slice 0.9 m. DS.09

DS.10

The 1 m deep, depth slice starts to give an impression of a route forming what we saw on the 3d profiles. The depth slice removes everything above 1m and below 1.1m and is such a powerful tool.

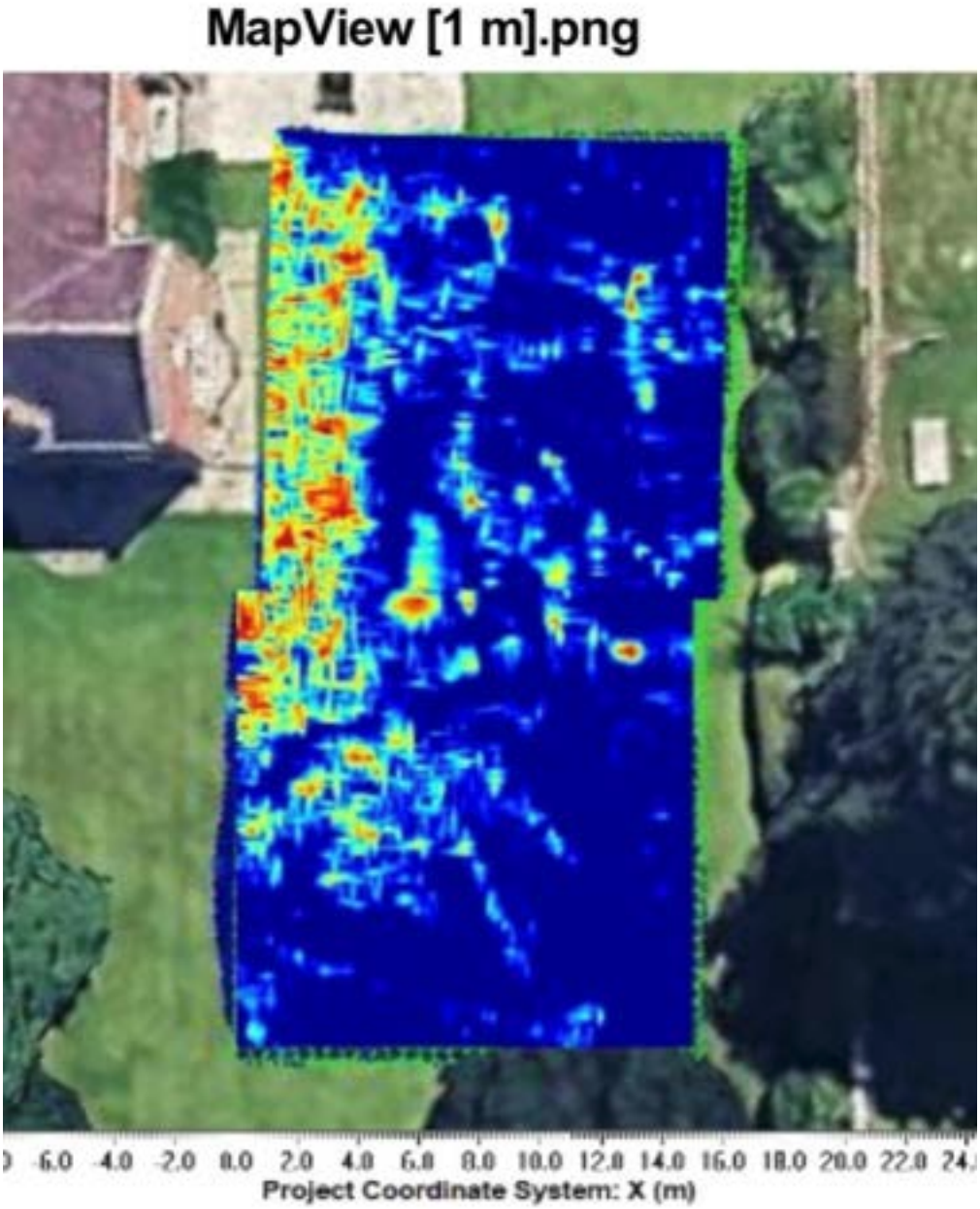

Figure 3.27. Depth slice 1.0 m. DS.10

DS.11

Approaching 4 foot under the grass, the lower left feature is still developing and purposeful with some material starting to cover route. The upper right isolated feature strongly showing at 0.5 m has reappeared as a very straight line and becomes increasingly interesting.

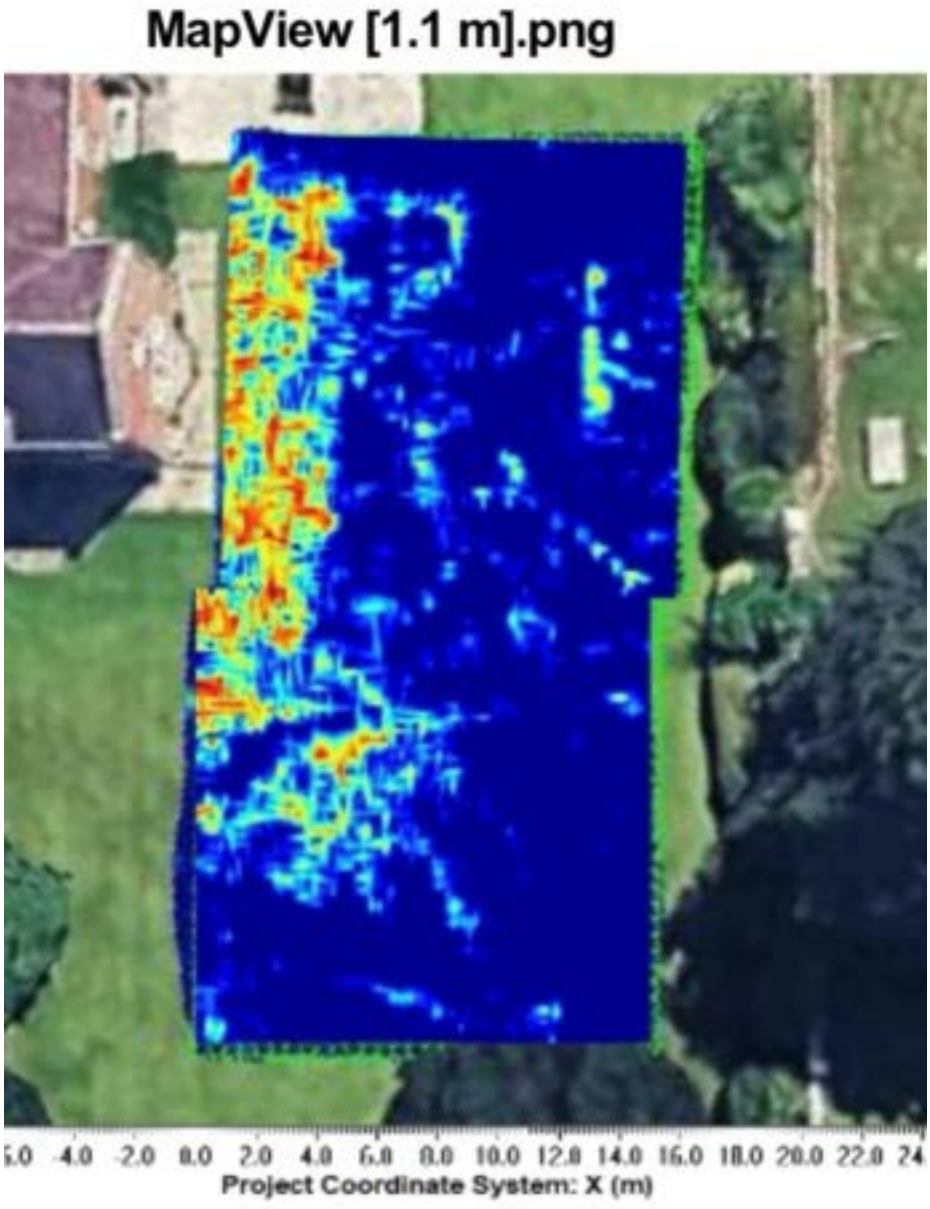

Figure 3.28. Depth slice 1.1 m. DS.11

DS.12

This depth slice was used as the basis for the 3d profile set, due to clear symmetrical structure that may be tunnel related. The last four slices show the remains of a structure that had no basement and pushed out into the garden in upper grid 1.

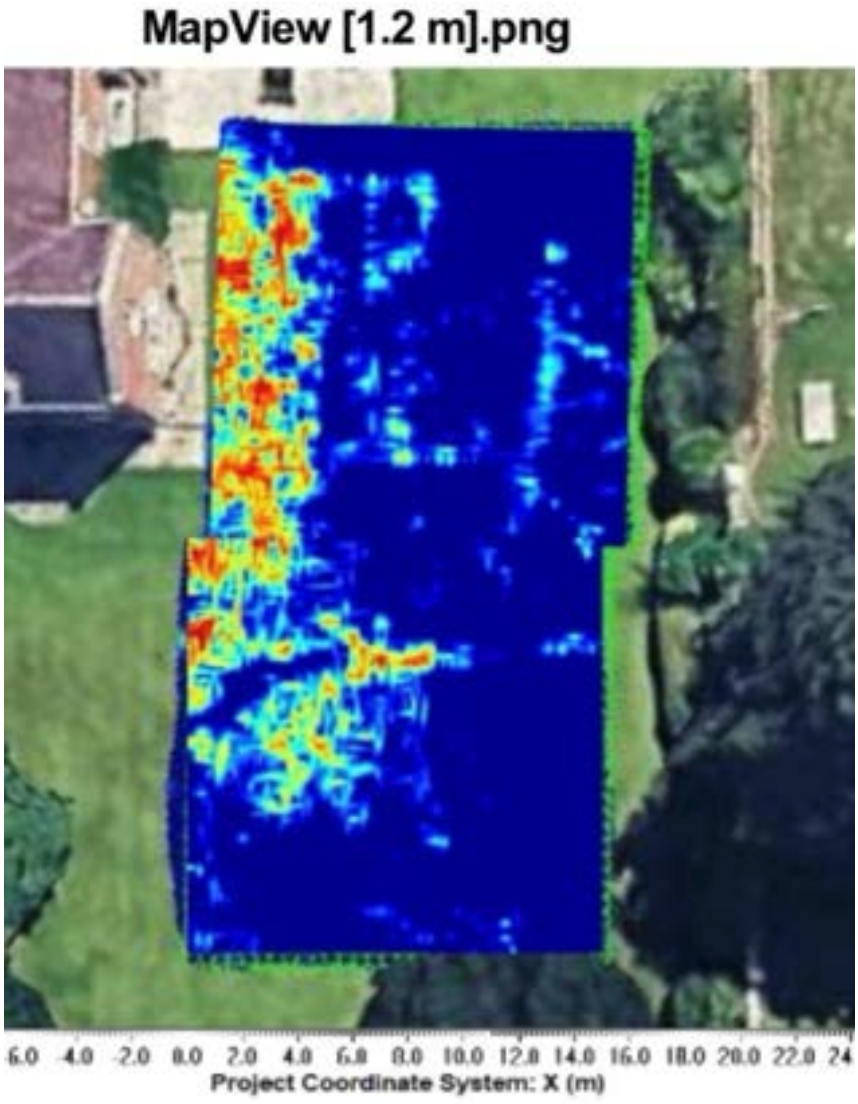

Figure 3.29. Depth slice 1.2 m. DS.12. This figure will be discussed in section 3.3.

DS.13

Depth slice 13 at 1.3m deep shows more of the tunnel as structure, visible closer to the church wall and owners' flowerbeds. There would seem to an area of possible collapse with the radar showing no changes in density. Could this relate to the use of timber that failed with no trace.

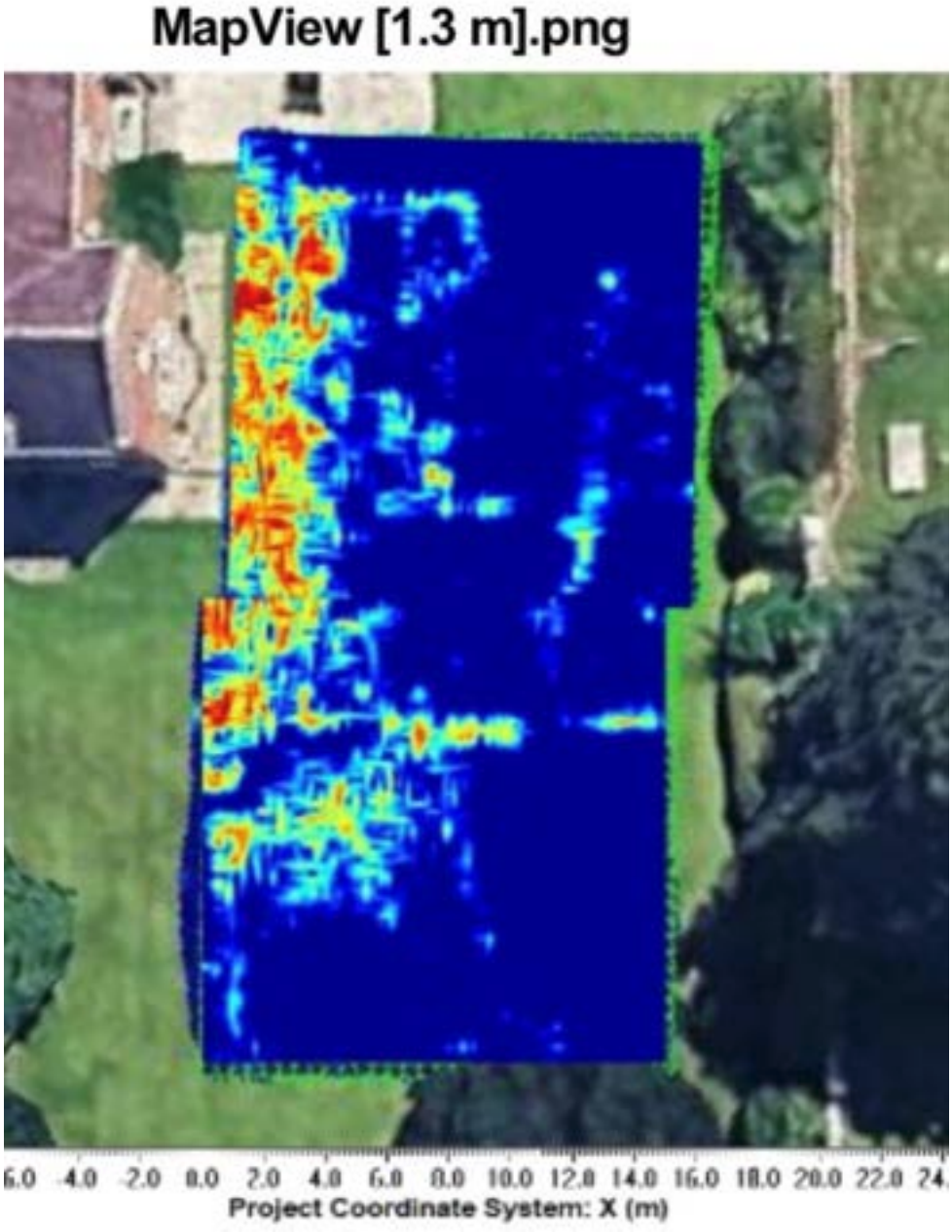

Figure 3.30. Depth slice 1.3 m. DS.13

DS.14

At 1.4m deep, the route stays visible, but traces of other deep lines converge and leave a similar fingerprint. Nothing is proven until we have excavated this part of the site.

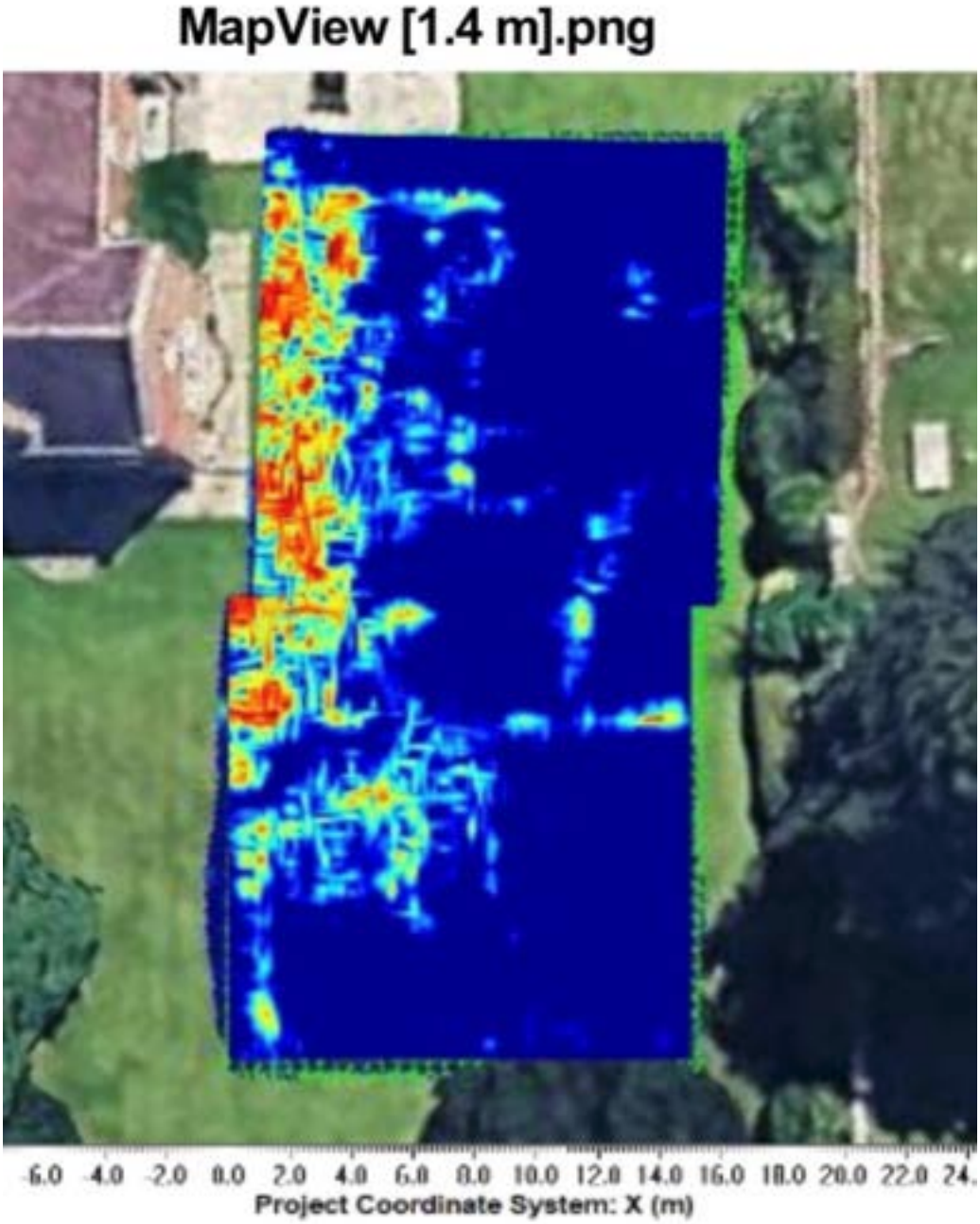

Figure 3.31. Depth slice 1.4 m. DS.14

DS.15

The structure at the bottom in grid 2 and just below the tunnel is showing a possible room or chamber. But some of the area may have been robbed out or demolished over the centuries.

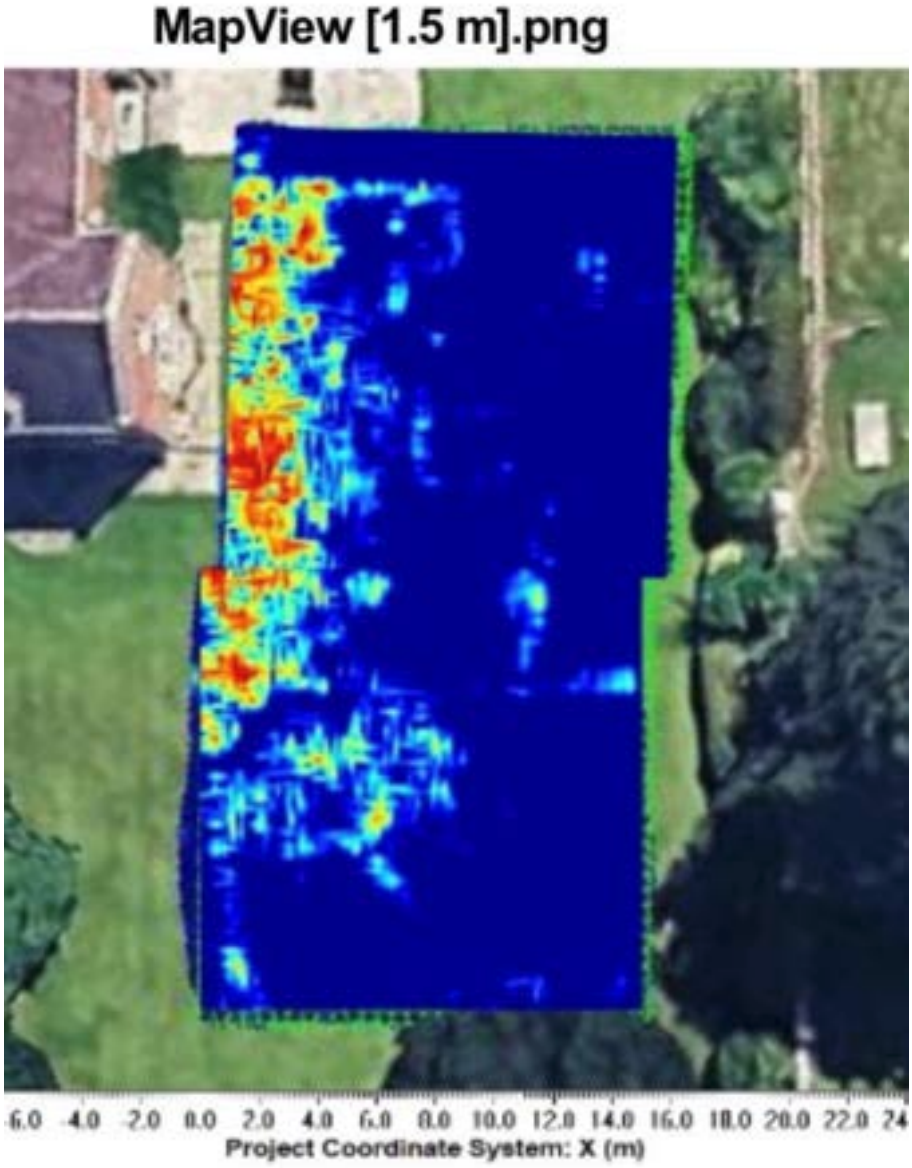

Figure 3.32. Depth slice 1.5 m. DS.15

DS.16

This level centers around surviving basement structure, but reference to the 3d profiles makes it clear that these elements go very much deeper.

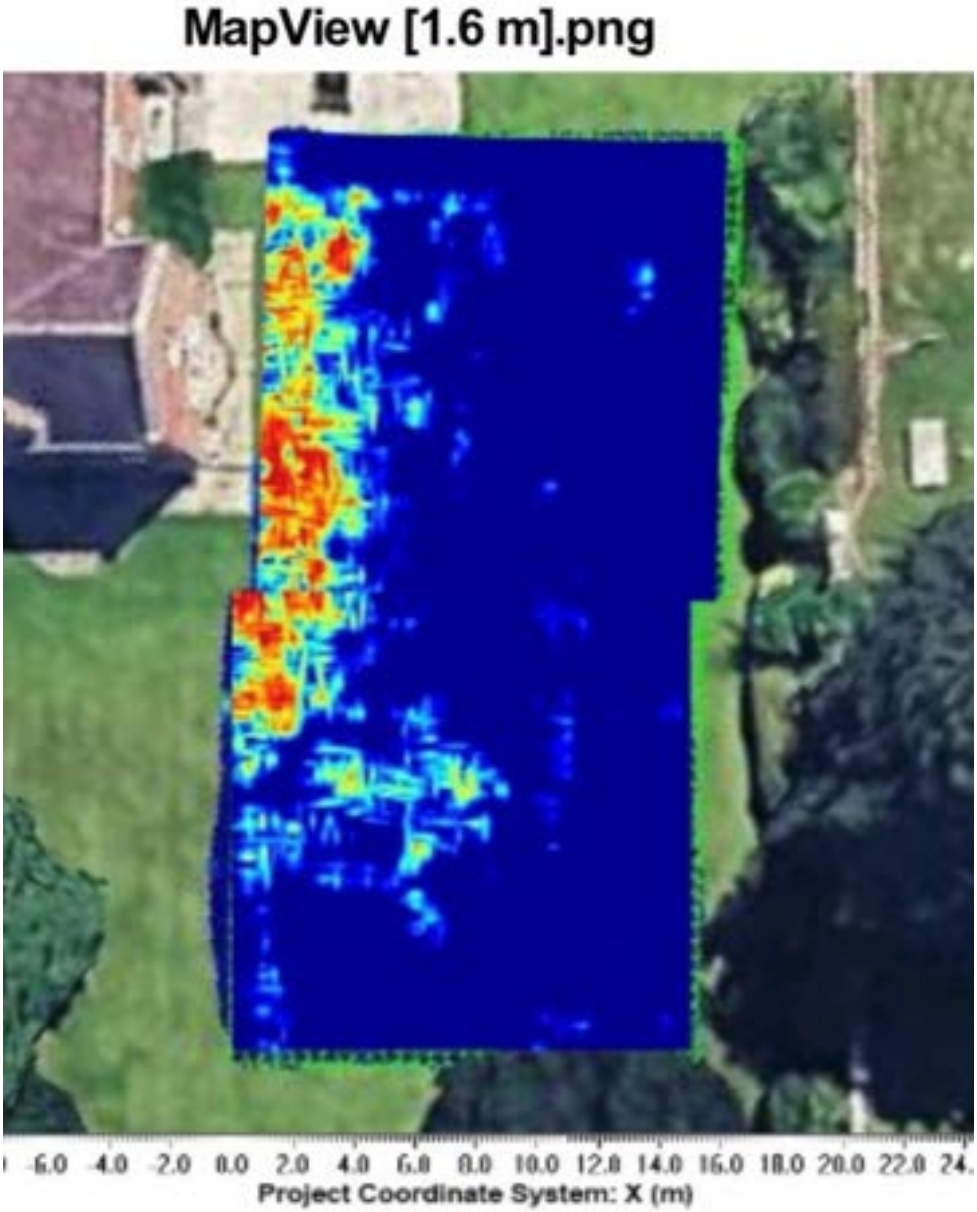

Figure 3.33. Depth slice 1.6 m. DS.16

DS.17

There is a clear square shape in lower area of material, but note the brighter material on its upper edge as this become more dominant as we go deeper.

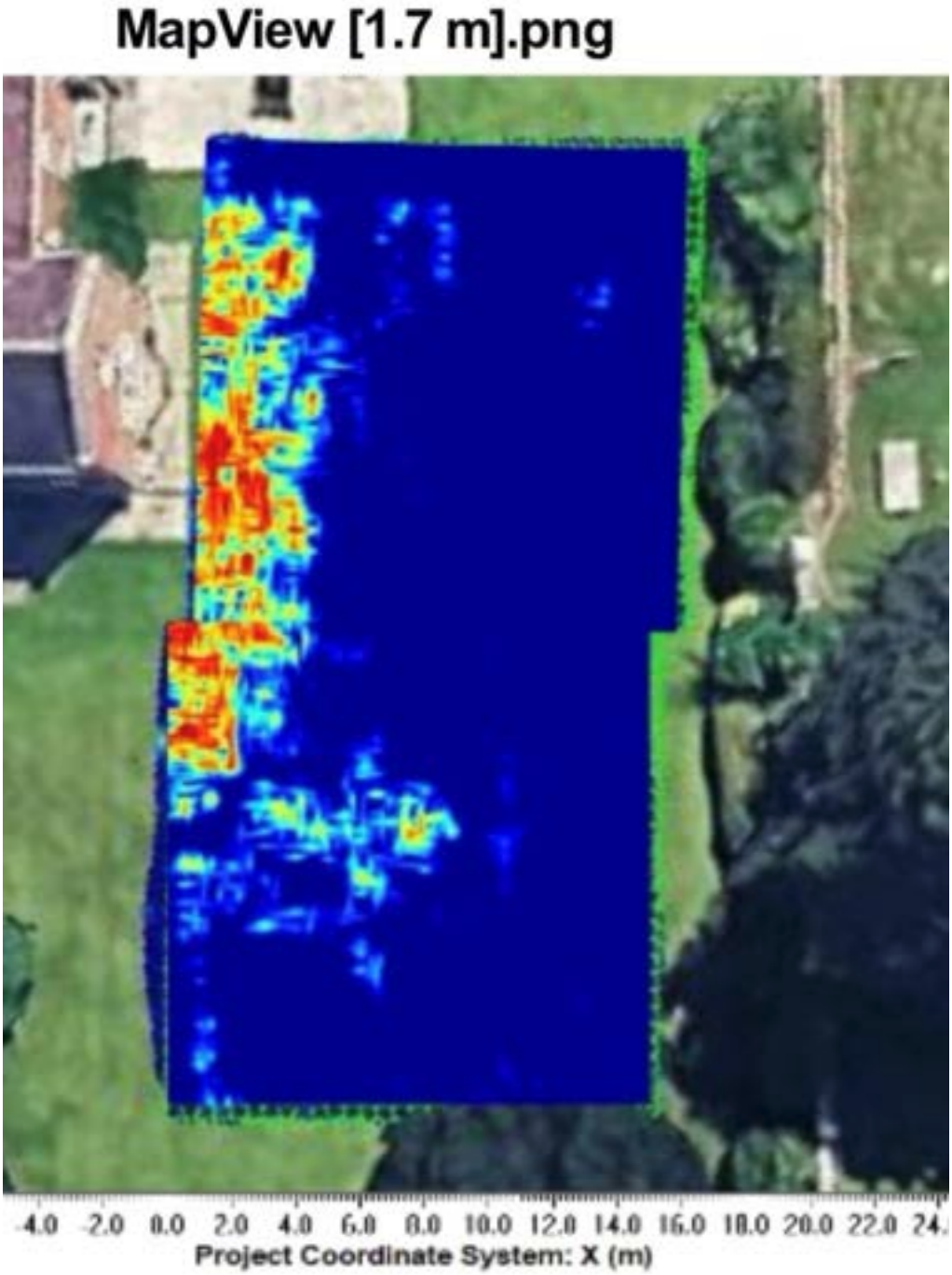

Figure 3.34. Depth slice 1.7 m. DS.17

DS.18

There is very little change in the depth slice from above, but this shows consistency in the quality of the data.

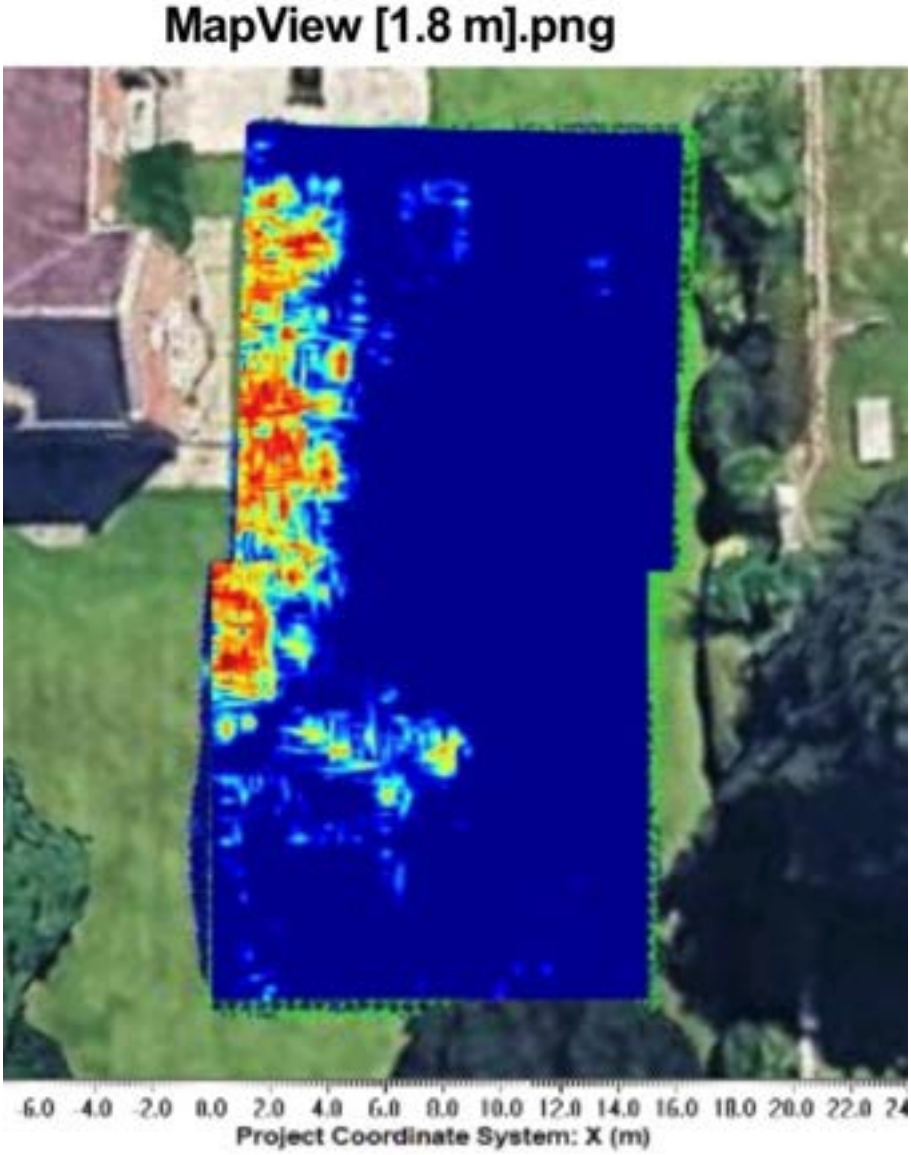

Figure 3.35. Depth slice 1.8 m. DS.18

DS.19

Dropping now to 2.1m deep, the depth slice shows enhanced reflections in the structure below the possible tunnel. The large pier shapes are hard to interpret, there may be an opening between them that serves a purpose. The manor basement is maintaining a consistent shape as we take the levels deeper.

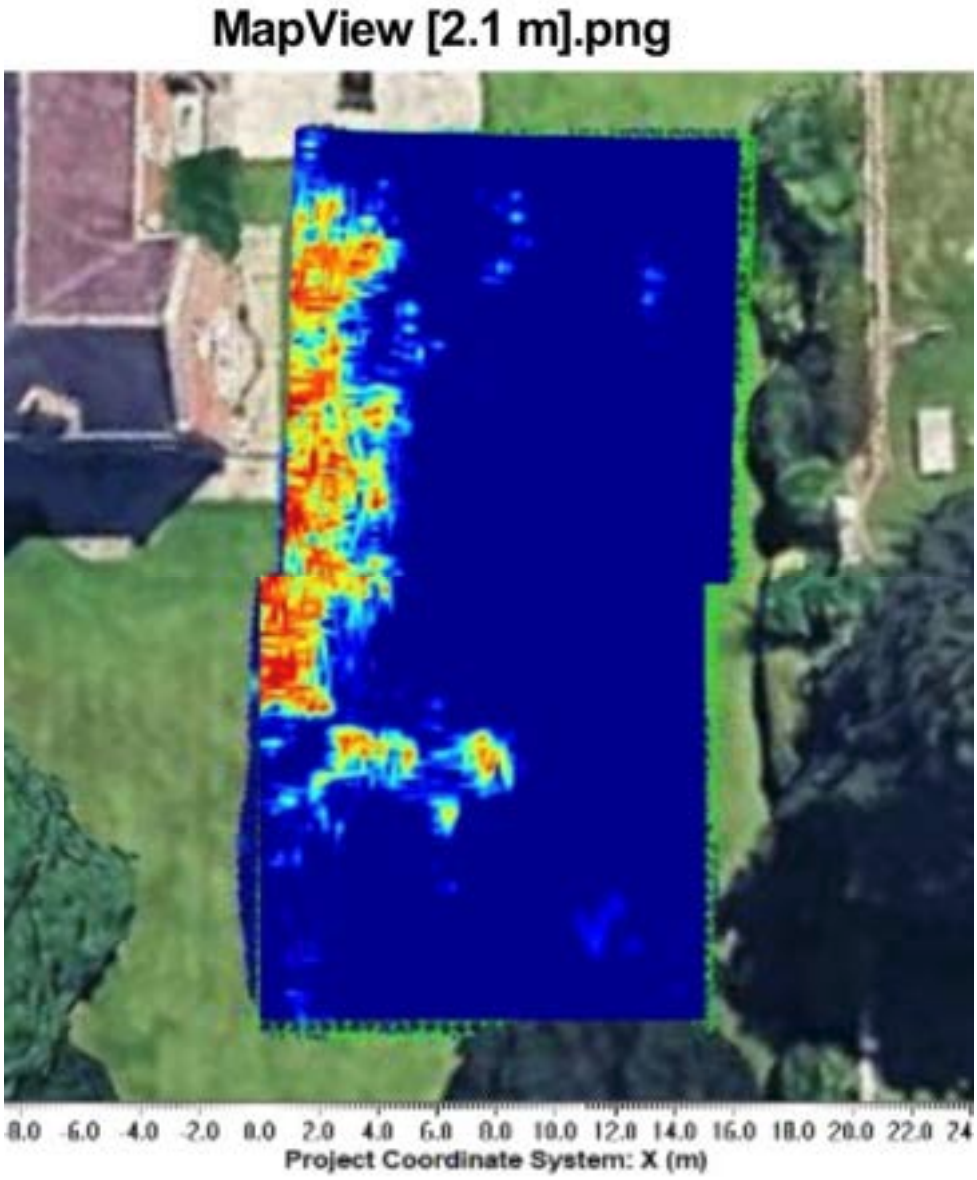

Figure 3.37. Depth slice 2.1 m. DS.19

DS.20

There is an interesting refinement at 2.5m where the two pillars are now clearly defined and there is a 2m gap between them. They seem to be contemporary with the lower basement of the Manor House, but are probably too deep to be gate posts, unless the entire area saw a dramatic rise in levels at a particular time later in history. This is entirely possible if we are seeing the mediaeval elements of the main house that is concurrent with the church. It may be that the old ground surface was not as flat as the lawn, so contemporary effects appear at different depths.

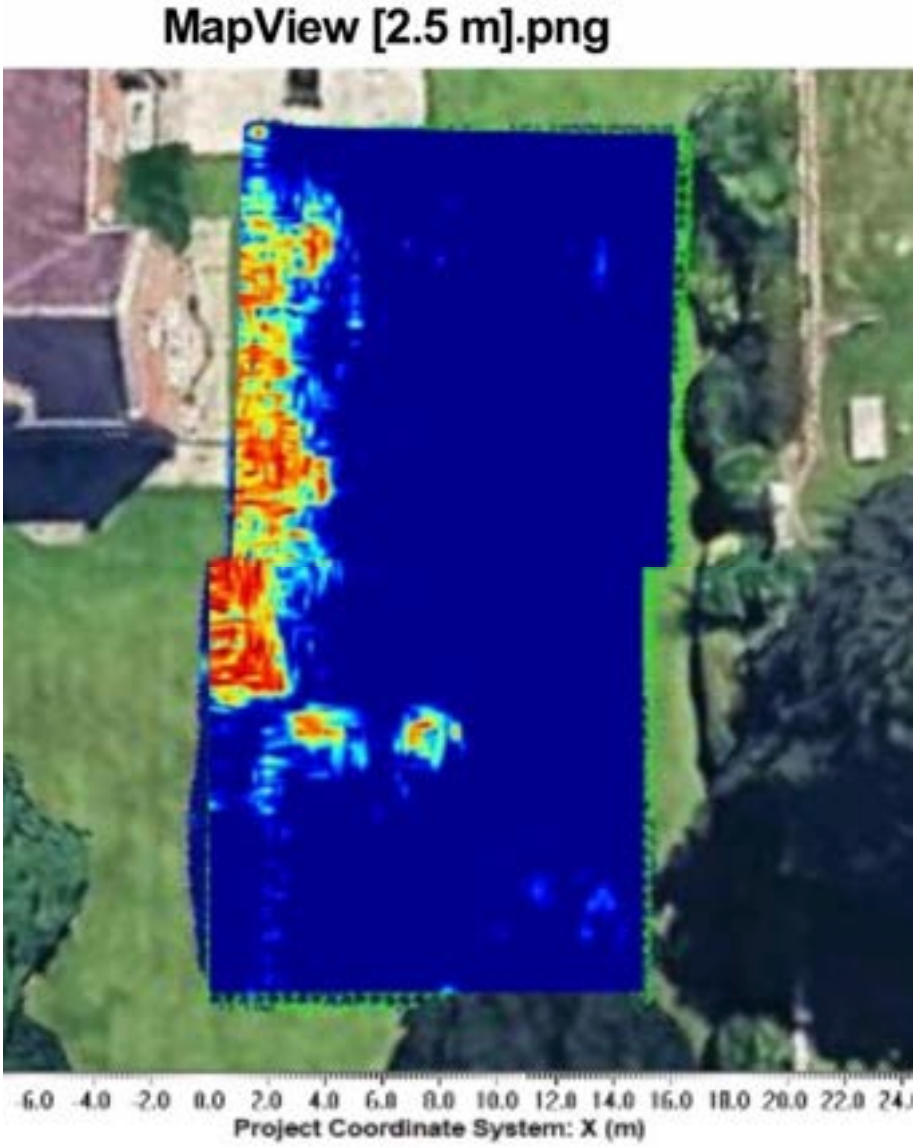

Figure 3.38. Depth slice 2.5m. DS.20

DS.21

The final depth slice is 3m deep and the visible remains in the ground do give the feeling that they are of considerable antiquity. We know that there is a large bank of ground between the church parking area and the house, that is likely to have been built up. It was normal for large houses constructed between 1710 and 1770 to have haha's to keep animals out and give unobstructed views. The Trenchards could have built a new house at this period and added the fireplace and a tunnel, as the easiest time to have built a tunnel would be when raising the ground level.

The evidence to understand the different historic phases of the Manor House may be here. The depth slices and the 3d profiles have provided an exceptional level of information and this report and assessment needs to be reviewed and considered.

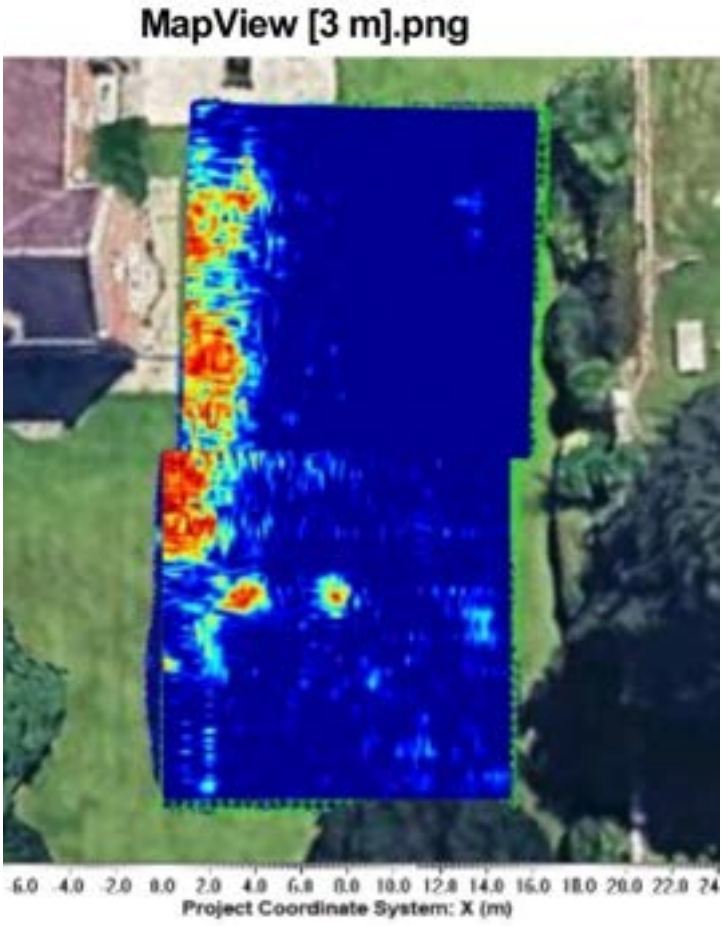

Figure 3.39. Depth slice 3.0 m. DS.21

3.3 Combining ERT and Radar.

Use of the radar was limited in the churchyard as its GPS locator was unable to work under the dense canopies of the massive yew trees. The garden however proved ideal for radar and a flat rectangular expanse of the lawn could be investigated, with depth slices presented to show masonry details, here at 1.2, 2.3 and 3.0 metres, as examples of the data obtained. The 1.2 metre depth slice is shown first in figure 3.40.

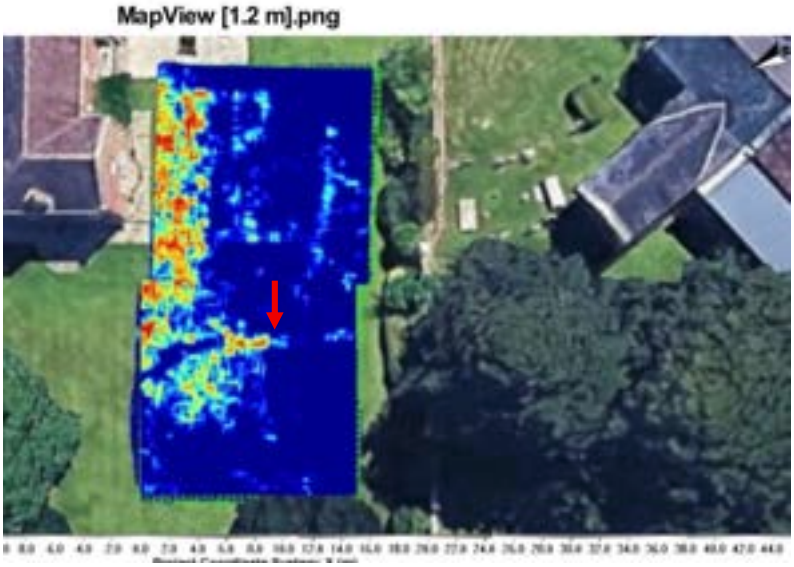

Figure 3.40. Radar 1.2 metre depth slice in the Manor House garden. Red arrow indicates line of possible tunnel.

Figure 3.41 next shows the depth slice at 2.3 metres, while figure 3.42 shows that at 3.0 metres.

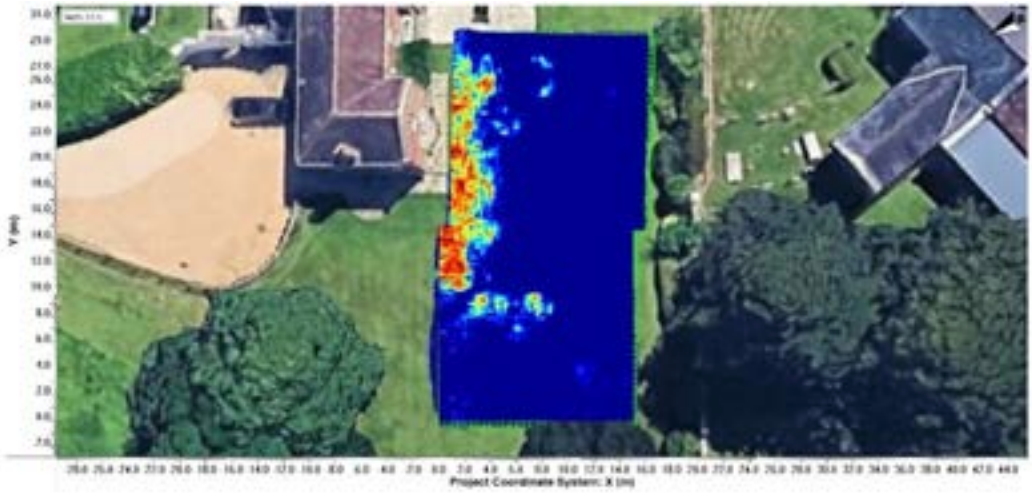

Figure 3.41. Radar depth slice at 2.3 metres.

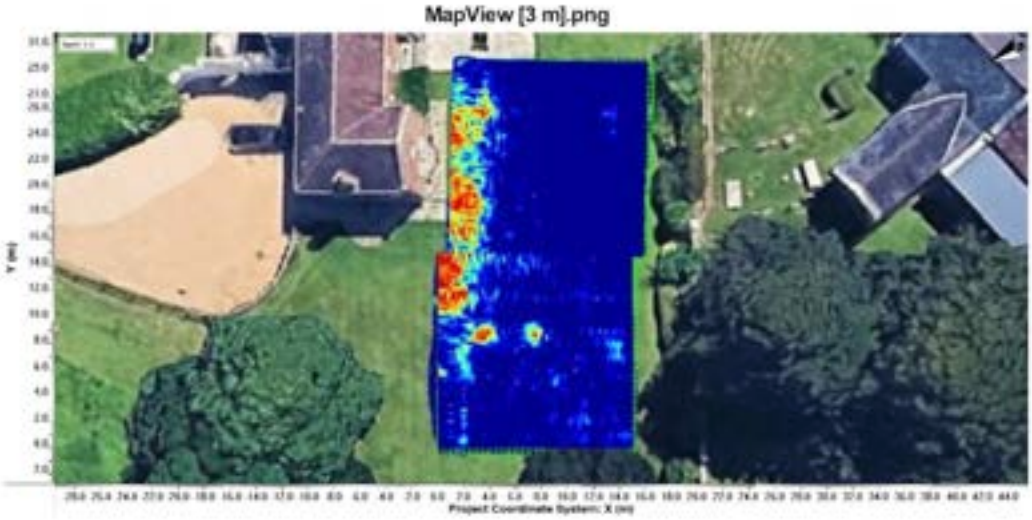

Figure 3.42. Radar depth slice at 3.0 metres.

All three slices show significant ordered masonry along the northern edge near the Manor House, and in all cases a line of consistency varying with depth showing approximately 10 m from the western edge. This is arrowed in figure 3.40, and can be picked up in the lower slices.

The radar depth slices show a large amount of masonry to the immediate west of the present house. This is assumed to be remains of the previous house at this place, probably that of the Maltravers family. It also shows various other indications of structure particularly to its south-west, rather less massive than the main structure, but occupying a large area, perhaps ancillary buildings, although a large masonry signal at depth occurs on Profile 3 at approximately 6 m and appears to correspond with detail on the three-metre depth slice.

Detailed study of the buried portions of previous Manor House and ancillary buildings would make an interesting project in itself, but it is not within the scope of this work. The area of principal study is a line probably representing the tunnel which is arrowed in figure 3.6 and also visible in figures 3.7 and 3.8 which heads directly out from the masonry signals towards the wall between garden and churchyard. In radar, the line is discontinuous in the slices shown and this suggests that although some remnants of the tunnel survive, it has collapsed under the garden. Indeed, the wall at the projected point of intercept with the tunnel shows signs of collapse and rebuild.

Figure 3.43 shows Profiles 2, 3 and 4 added to the radar 1.2 metre depth slice.

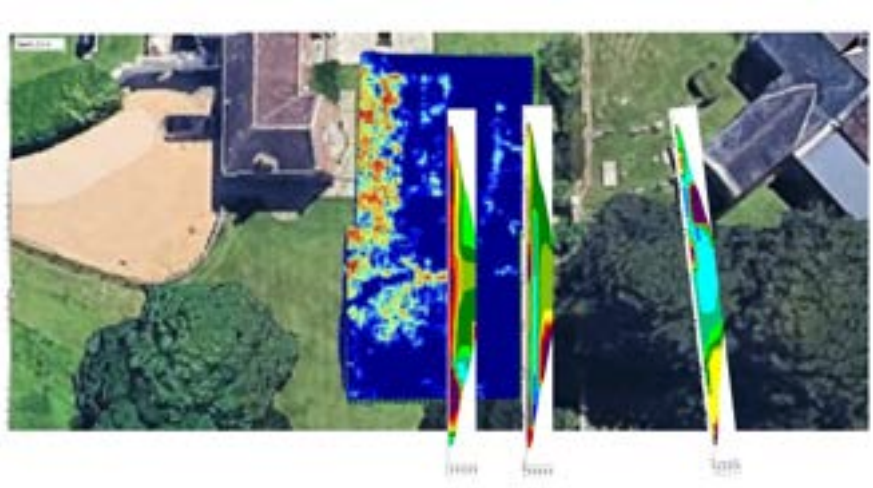

Figure 3.43. Radar 1.2 m depth slice overlaid by Profiles 2, 3 and 4.

The projected line of the tunnel would appear to pass a little to the west of the strong signal in the churchyard next to the kitchen extension. This would require a curved tunnel if the feature in profile 2 represents the tunnel. Alternatively, the tunnel has already collapsed by then and is represented by the (very wet) light blue area of the profile.

3.4 Three-dimensional imaging

The pictures shown below, starting at figure 3.44 are the three-dimensional images created using the facility on the iPad, from section 2.3.

Figure 3.44. Image created inside the church.

Figure 3.44 shows the recreation of the inside of the church, with the fireplace located between the windows of the North Aisle on the left and vestry door on the right.

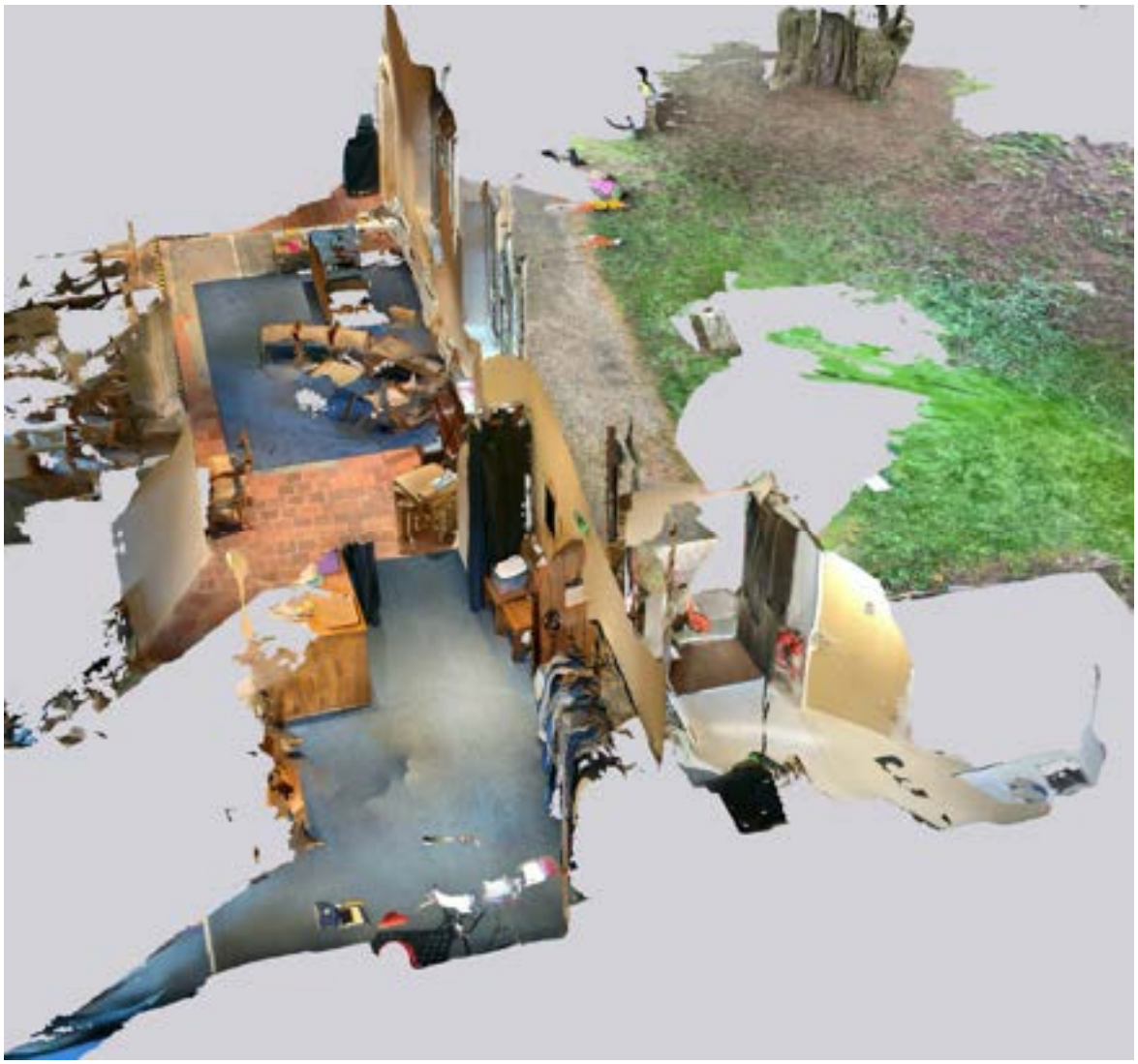

Figure 3.45. Rotated version of figure 3.44.

In figure 3.45, rotating the point cloud allows a view of both the inside of the church and the outside at the same time.

Please note the yew tree now visible outside the church. This specimen tree is thought to be over a thousand years old and may be considerably older. This would predate the known church, and it is recommended to consult with Mark Hinsley. He is a local tree consultant who has expert knowledge of yew trees.

Figure 3.46. North Aisle and modern extension from outside.

Figure 3.46 shows the view looking at the north wall where there is evidence from choir members to say that a tunnel may pass under the ground. This also shows the 'void' area between inner and outer walls. No tunnel was located when the modern extension on the left was recently constructed. This would suggest that the tunnel runs closer to the windows and from a structural perspective, under the window would be the safest and best position for a tunnel to run. The foundation pressure bulb on the ground, is at a minimum under the centre of the window.

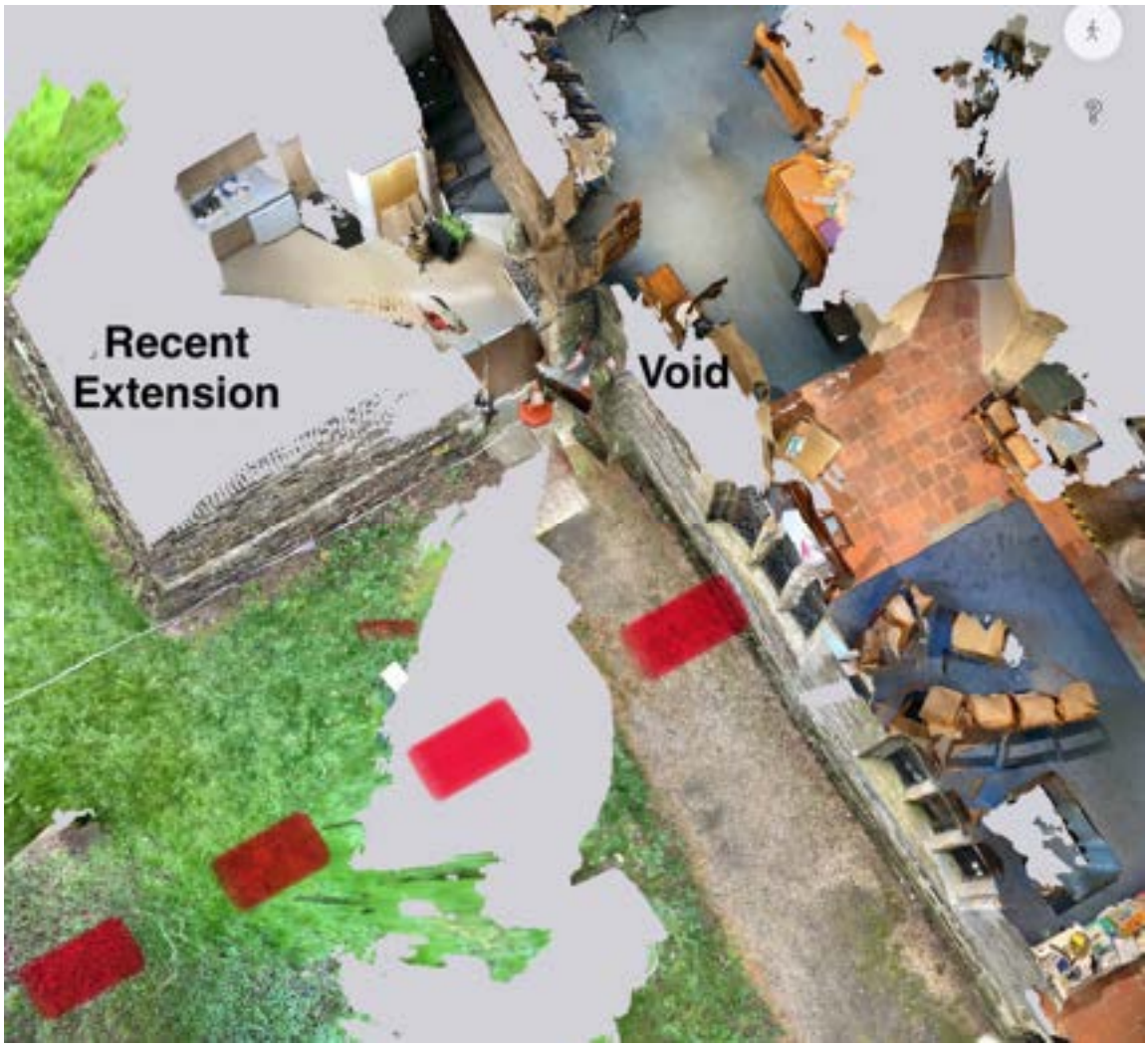

Figure 3.47. Combined inner and outer data.

Note that there is an area shown ‘void’, which is the space between the inner and outer wall surfaces. This is sufficiently large to accommodate a stair well, and if this headed to beneath the window, a possible tunnel line is indicated by the pecked red line.

Figure 3.48. Image as figure 3.47, but shown in plan view, directly above.

Observing figure 3.48, the modern extension is east of the possible tunnel route. The void is where the fireplace is located and this image reveals a possible solution to the best tunnel position. The void represents a location which cannot be detected between inside and outside of the building. Its volume cannot be studied using present techniques. The window with low loading is very close to the chimney void where the vicar led the choir members.

The walls serving the chimney were built several centuries after the medieval period. When constructing the chimney foundations, it would have been possible to form a passageway below the window. This route would need someone to be fairly agile, but a 500mm wide shaft and tunnel entrance is entirely workable.

The plan view of figure 3.48 gives a precise image of the complex chimney structure that was skillfully integrated into the nave's main arches and also shares loading from a squint that is reputedly one of the largest in the country. This complex area of loadings entails that the tunnel void was expertly engineered so that the church was not damaged. The fact that the vicar could traverse some way along the passage in the 1950's tends to show that expert builders and stone masons were employed to complete this work.

4 Structural Evidence

4.1 Entrance in church

An obvious entrance to the tunnel is no longer evident. Informal discussions with long-standing members of the church suggested three possible locations:

4.1.1 Under wooden floor in front of the lectern, corresponding to a hole in a floorboard. The damaged floorboards were taken up and replaced, but no hole was evident.

4.1.2 Under a wooden platform in the chancel, next to the organ. The wooden platform was taken up and found to have woodworm. In taking up the platform, a gravestone of a rector of the church was found. The rector – Thomas Rowe (Rector from 1658 to 1662) was known to have been buried near the altar rail, but the exact location was not known. The inscription on the stone was difficult to decipher, but a church member with some experience in this area deciphered it as follows:

Here lies the body of Thomas Rowe a faithful pastor of the church, who died on the sixth of October 1680 In God's peace.

Here is his resting place Age 83

Figure 4.1. Tomb of Reverend Thomas Rowe, former Rector of the church

It was assumed that the gravestone was covering the grave, not covering an entrance to the tunnel, given no evidence to suggest the tombstone was anything different. The grave was not disturbed. See Figure 4.1.

The wooden platform was replaced with new wood, resulting in a better colour fit with the recent wooden platform on the opposite side of the chancel (replaced a few years ago, unrelated to the search for the tunnel entrance).

4.1.3 Behind the fireplace

Further discussions were pursued with older church members and one parishioner – aged 91 – could recall some choir members being taken down into the tunnel by the vicar of the day in the 1950s She was emphatic about the entrance being behind the fireplace in the North Aisle. However, there is no active fireplace in the church today. Further examination showed that there is a part of a hearthstone just visible set at an angle to the floor tiles configuration.

Figure 4.2. Hearthstone by old fireplace

The fireplace was sealed off many years ago. Following discussion with church officers, it was agreed to drill a hole to see if the wall was solid or not. The skirting board was carefully removed and a hole drilled about 20cm and a camera inserted. There was a void after about 15-18 cm with loose material and black material, interpreted as carbonaceous material from the fireplace – see figure 4.3.

Figure 4.3. Carbonaceous material and camera down hole (ca. 20cm)

The void has been shown to not be solid, and there was loose material present beyond the stone facing, so it was not possible to see further into the void. An in-going draft could be felt at the hole close to the floor It was also not possible to see steps (or similar) heading into the tunnel.

4.2. Wall between churchyard and garden.

There is a wall separating the churchyard and the Manor House gardens. It was noted that there is a crack in the garden wall and it looks like a section of the wall was repaired – lighter coloured cement is visible. The position of this aligns with the tunnel as traced by radar, so where the line of the tunnel might be. This alignment would continue to meet the North Aisle, towards its eastern end.

Figure 4.4. Wall between church and manor house suggesting some settlement and repair

5 Comment and conclusions

The historical progress of the site can be summarized as follows;-

1. 12th Century – Construction of the first stone church beside the medieval manor.
2. 14th Century – Expansion of the church and decline of the original village.
3. 15th–16th centuries – Major restoration of St Mary's and continued manorial occupation.
4. 17th–18th centuries – The Trenchard family develop the estate and landscape including the haha as part of Georgian improvements.
5. 19th Century – Rebuilding of the Manor House including a tower.
6. 20th Century - Demolition of the main dilapidated structures in the 1990's to make way for a new dwelling for the current owners. Addition of a kitchen wing to the church.

Within this grouping, a tunnel was built, which may have been mediaeval (monastic) or much later secular use, probably for smuggling.

The following clues for the tunnel location are:

1. Eyewitness report.
2. GPR survey indicating possible tunnel at 1.4m depth.
3. ERT survey also indicates a tunnel that partly aligns with the GPR survey.
4. There is a cavity behind the blocked-up fireplace that could may contain steps down.
5. There is a crack in the garden wall suggesting some settlement and repair activities.

Knowledge of the tunnel is just within living memory, although some witnesses have died in the last few years without leaving their stories behind. We are very grateful to Mrs. Nita Parke for providing her reminiscences. The knowledge of builders at the Manor House is also useful in observing material, even if they did not see an obvious tunnel. There is very strong evidence that the vicar took choir members in the 1950's through a small fireplace and down into a cleverly engineered tunnel leading from the church. It was only possible to go a certain distance and is presumed to have collapsed. As the fireplace was subsequently sealed, no progress is anticipated from the south end of the tunnel without the necessary consents being obtained.

The churchyard compromised survey through the following mechanisms:-

1. Two extremely old yew trees sit in close proximity to the possible tunnel route.
2. Burials have successively caused ground levels to rise and create highly complex ground conditions. This makes it very challenging for the geophysical work to provide any meaningful results.
3. If a tunnel collapsed or became filled over time, through the natural migration of soil particles, it would not leave a strong signature for modern survey equipment.

4. There are drains, tombstones, bones, paths and modern building works that create further complexity.

5. The medieval church has known crypts under the floors that may have been utilised to assist with tunnel construction.

6. There is talk by members of the church of a Trenchard Family vault with no known location.

The Ground Penetrating Radar (GPR) survey gave useful results in the Manor House gardens, but did not give useful results in the churchyard. This is probably due to the soil being extensively turned over by burials, and lack of GPS reception under the yew trees. In the garden, the GPR seemed to indicate the presence of an interrupted line heading directly towards the church. This would cross into the churchyard at the point where the wall is seen to have been repaired. That line would intercept the North Aisle wall in the vicinity of its eastern window. If a haha was built in the early 1700's, by raising the ground significantly across the garden, the radar would seem to show that earlier structures were buried and possibly utilised.

The Electrical Resistivity Tomography (ERT) survey gave good insights into subsurface features – down to a depth of ca. 4m in the middle of a survey line. The two lines nearest the churchyard wall (line 1 in the churchyard, line 3 in the garden) had features but these could not be readily interpreted as sections of tunnel even if that were collapsed. Line 4 in the garden showed an earth-filled crater just where the GPR predicted tunnel collapse. Line 2 in the churchyard, close to the church, gave a strong distinctive signal like a tunnel cross section, but further east than the projected line of the tunnel. The signal, though not coming within two metres of the surface was right by the northern end of the new extension. Even given its depth, it seems unlikely that building the new extension would not have discovered some part of a tunnel passing here. If it were a vault, then some other approach from the surface would have been noticed previously.

Finding more straight lines for further ERT work close by, which might provide an alignment, is difficult, given tombs and trees. On the projected line of the tunnel from GPR is a large area of very low resistivity. If the tunnel was already collapsed this near the church, that could show a large ingress of water here, but that is a less likely explanation.

GPR and ERT results – where each was giving good results – appear to agree with each other in terms of identifying subsurface features, but the churchyard lines cannot confirm the preferred projection of the tunnel route.

The cavity behind the fireplace provides an intriguing insight into there possibly being a tunnel entrance here and living memory suggests that this is a likely location. However, taking these investigations further would require a lot of planning and permissions.

It would appear that the tunnel has collapsed in parts (e.g. GPR results not being "solid lines" and the eyewitness accounts or secondhand accounts), and it may be that only short sections at

either end remain, but if that were so, one would still expect to see signals of displaced earth as seen in the garden in line 4.

There is a good case to be made for further investigation. We know that the area was extensively involved in the movement of illegal smuggled goods and the opening fireplace in the church, does raise some intriguing questions as to the activities that took place at this site.

The next stage recommended would be a dig on the manor house grounds, possibly preceded by drilling/coring/auguring small diameter holes and using a camera to assess location of tunnel. Initially, this would have to be a relatively small test pit and it would be essential to leave the garden reset to the owner's satisfaction. The preferred location is at the point observed in both GPR and ERT. Work in the churchyard would be much restricted by the need for a faculty from the diocese and the possibility of disinterring human remains. If the tunnel structure can be positively located, there could be a chance to increase the excavation, but at the depths of interest, safety measures may be needed and these may become prohibitive.

It may also be worth checking through the Dorset History Centre in case there are any enlightening documents in the church or parish archive.

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Percival, S, 1989. Lytchett Matravers. A Dorset village in pictures. Wimborne Minster: Dovecote Press.

Royal Commission on Historic Monuments (RCHM), Dorset, volume 2 part 1. HMSO London pp 154-157.

Archives at Dorset History Centre

Bills, receipts and correspondence for work on the vestry and organ chamber 1875-1880. Includes a plan of the church 1875. 1875-1880

Reference number	PE-LMA/CW/3/4

Appendix A:

Nita Parke (aged 91) recollections pertaining to the tunnel

Recorded by David Mason, April 2026.

Recollections of early Choir Years and Discovery of the Tunnel

I joined the Church choir in 1943 aged eight. Mrs. Pink was my piano teacher and also the Church organist and choir mistress. One day she said to me: “You can read any word now, so I should like you to join the Church choir”.

I was very pleased and considered it to be an honour. At that time the choir's vestry was at the East end of the North Aisle, curtained off, the place where the Squire and his family previously sat. I noticed that there was a fireplace in the wall on the left, obviously the Squire had to be kept warm!

Members of the choir in the forties were Peggy Marsh (trained soprano), Avis Mabberley and her older sister Vivien Mabberley, Hazel Maitland and Doris Ames at the back, then in front Betty Kennedy, Pat Lamb (evacuee), Kathleen Crumpler and myself.

On the opposite side were Ronald Abbot (trained tenor), Lionel Pink, Meyrick Martin, Michael Selby, Peter and David Gibbs, Peter Holloway and Hugh Wiliams and, in front, the smaller boys, John Holloway, Nigel Crook, Tony Burbidge, Alan Maitland and Michael Head. Girls who came in the fifties were Bobby McDonald, Marie Head, Sylvia Davis and Jill Thompson, Kathleen Crumpler and myself, Jean Grigg, Alice Boume, Kathleen Cobum, Jean Maitland, Velma Fry and most of the already-mentioned boys and men.

In 1950 when I was fifteen we had a new vicar, Revd. James Nicholas Mahon who had been a curate at Wimborne Minster. One evening, we choir members were taken by taxi to Wimborne for his induction service.

Revd. Mahon was, at that time, a bachelor who liked to spend his holidays in France. He started performing plays mostly with choir members, Shakespeare and religious plays. I played Portia in The Merchant of Venice, with Bobby McDonald. The following year they played " Twelfth Night" but, by that time, I was living in France.

Revd. Mahon had suspected the presence of a tunnel between the Church and the Manor House. He did uncover the tunnel and, one week, he went down into the tunnel and I believe he took some choir members with him. As he damaged his ankle when in the tunnel, he decided it would be dangerous for anyone else and he blocked the tunnel and covered it up. No-one else was interested in the tunnel until recently.

I believed that the entrance to the tunnel had been behind the fireplace in the North aisle. The fireplace is no longer there but it is obvious that there has been some activity in that area where the wall has an uneven surface.

One of the archaeologists who are now working there has shown me a photograph of the grass in the cemetery outside where there is a line of grass much darker than the grass around it, which

appears to be above the tunnel. The other end of the tunnel is in the garden of the Devoil family who live where the Manor used to be.

They are willing for us to uncover that entrance as long as we replace whatever grass and earth has to be moved. The central area of the tunnel has collapsed and is full of earth so we cannot go through it. From the church end they think there must be steps leading down as it is quite deep. 1 have always imagined that the tunnel was made by smugglers, perhaps in the 18th century. Our late historian, Shirley Percival, has seen household accounts from the manor which show that they used to buy a cordial which would mask the saltiness of brandy which had been stored under seawater.

Revd. Mahon was our vicar for 27 years, until 1977.He had had a lady friend, Gladys, who served in her parents' shop in Wimborne but his mother did not approve of her for a wife as she was 'in trade'. His mother died when James was in his sixties and, at once he announced his engagement in the Echo" and married Gladys. For a time they were a very happy couple until James took Gladys to France with him, on holiday. There was a car accident and Gladys was killed at once and James was injured. He was never the same after that tragedy and soon retired from the ministry.

The archaeologist thinks the tunnel might be much older than 18th century and said we could find out if pottery or glass were found when digging. Few of us are still living who remember the tunnel. Michael Selby, who is two years older than myself, remembers but did not go down into the tunnel. Jill Baker (nee Thompson) now lives in Canada and I am in touch with her. She did not go down the tunnel but remembers the discovery of the tunnel.

There were two marriages between choristers. Peter Gibbs married Sylvia Davis and Nigel Crook married Kathy Cobum. Mrs. Pink once took a year off from the organ and choir training and a young man aged about 25 came from Corfe Castle to take over from Mrs. Pink. He took a liking to Peggy Marsh and they married. We all attended the wedding and the reception.

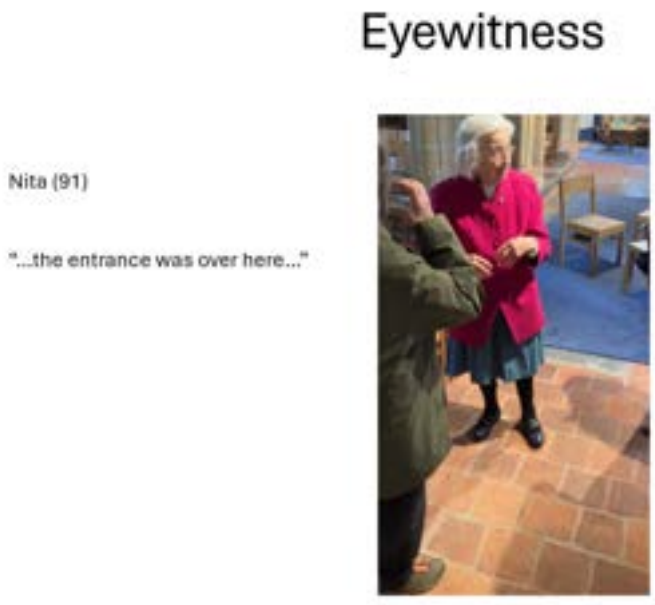

Figure A1. Eyewitness

Appendix B. Metal detector survey of the Maltravers Tomb

St. Mary's Church Lytchett Matravers

Further metal detector survey of Sir John Maltravers tomb.

Background

Previous metal detector survey showed metal to be present – and that it was iron (and another non-ferrous metal). The second survey was to see if it was possible to identify a shape that could show the amour laid across the body. The first survey was interpreted that Sir John Maltravers was – as per legend – buried in his full suit of armour.

Survey

Mike (metal detectorist) joined us at the church on 14th Feb 2026 together with the vicar, a churchwarden and some church members who assisted. It was noted that a mediaeval knight would have been buried in a position that – upon resurrection – the person would face the altar and be facing towards Jerusalem. In other words, the feet would be at the altar/chancel end and the head at the opposite end:

Figure B1.
Suggested body position within the Maltravers tomb.

The survey was initially done making wide sweeps across the tomb, however, this did not give a clear indication of what might be in the tomb. Therefore a slow approach was taken and whilst this gave better definition, it was not clear cut. One problem was that the brasswork on the tomb has mostly been lost due to the ravages of time. However, there were remains of nails or fixtures which had been used to secure the brasswork to the tombstone:

Figure B2. Metallic studs within the stone cap of the Maltravers tomb.

These gave responses that confused the overall picture, and whilst every care was taken not to run the metal detector across (or close to) the fixtures, the uneven surface of the tomb (Tournaisian marble) means it can be difficult to spot the metal spurs. However, despite these challenges, where the survey indicated a change in signal (either metal/soil or metal1/metal2) a post-it note was used to mark the position. It was hoped that this might yield an overall picture:

Figure B3. Detections of metal from below the surface of the stone, marked by post-it notes, show an approximate body shape. Typical armour of the period is shown in the figure on the right.

There is some character shown:

- There is clearly a lot of metallic material in the tomb. We ran the tool across another tomb nearby that looked of similar vintage, with no metal indicated.
- It could be a cloak of chain mail across the deceased's body?
- A smaller width of boundaries appears at the top – perhaps a helmet??
- There appeared to be a straight line down the middle – possibly a sword??

These are very subjective and could be reading too much into very uncertain data.

Mike advised that he has a more recent metal detector tool that may give better resolution. He will experiment with this at home and – depending on the results – it may be worth rerunning the survey with the later tool. This may change or clarify the above possible indications.

Comments/suggestions welcomed.

David Mason

4th Mar 2026

Appendix C. Comments on fireplace and wall thickness.

G. Vickery

Lytchett Matravers St Mary's church fireplace.

I looked at the entry for Lytchett Matravers in the RCHM(E) volume II; part 1: South East. The foreword indicates that although the volume was published in 1970, surveying had been carried out in the area in the 1950s. This then is an opportunity to see what the area of the fireplace was like before it was 'filled in'. Reproduction of the church building diagram and a close-up of the fireplace area are below.

The wall of this corner is listed as built around 1500, but in the third quarter of the 19th century the east wall was knocked through to provide an entrance to a newly built room. In doing this the north and south stumps of the east wall were faced with the same stone as the new room. Also, and this seems a bit unnecessary, the stone facing continued along the north wall. From Nita's description, this encompassed the fireplace which remained *in situ* on the north wall. Or it didn't encompass it: the fireplace perhaps remaining in the section to the west of the new facing (see the enlarged diagram).

In front of this feature can be seen a line running diagonally across the corner with a small square to the west. I assume this is a step? In which case the small raised square area could be the hearth of the fireplace. So, what is the diagonal step for? Could we assume it was a step to the entrance in the corner. Of course, the fireplace itself could have been larger and taken up the entire outer wall of this corner.

The light probe did was not able to give much more information behind the fireplace.

Why was this area faced with stone at that time, and yet both the fireplace and the tunnel entrance were still accessible?

I can't remember, and should have taken a photo of this area, but I think I am correct in saying that the corner now has a stone diagonal step base, in front of which is a diagonal stone 'hearth' set at floor level. I can't remember the extent of these features to correspond to the RCHM diagram. The 'covering' of this corner above the stone step, when I knocked it with my fist, is hollow-ish and suggests that this was the blocking by the vicar in the 1950s.

I am sure that your resident historian has looked at the parish records in the Dorset History Centre, but it might be worth you (or someone) checking out this package of papers:

Bills, receipts and correspondence for work on the vestry and organ chamber 1875-1880. Includes a plan of the church 1875. 1875-1880

Reference number • PE-LMA/CW/3/4

The plan might help. And there are probably other papers that may help, perhaps in the PCC meetings, for example. See RCHM Dorset volume 2.

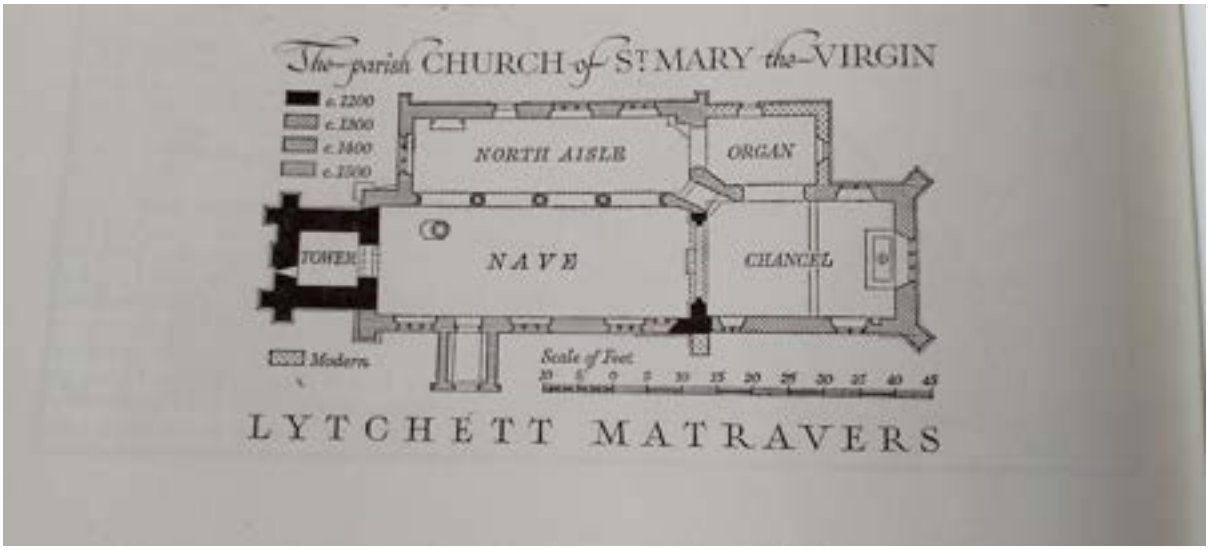

Figure C1. Plan of church, from RCHM vol 2 part 1.

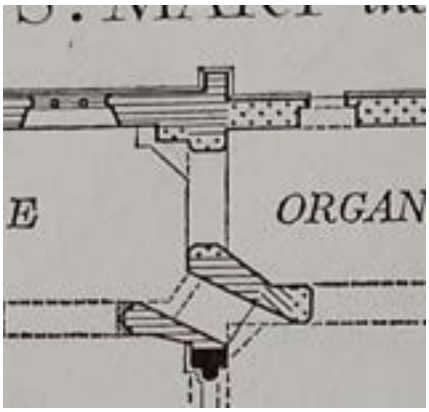

Figure C2. Close-up view of area of north chancel arch, squint and North Aisle arch, showing area of 'thick wall' by the fireplace.