



01/02/99

WHITLAND ABBEY

Carmarthenshire

**STANDING BUILDING, GEOPHYSICAL AND TOPOGRAPHICAL SURVEYS
FEBRUARY 1999**

Project Record No. 37011

PROJECT REPORT

by

D. Schlee

**Project commissioned and
funded by Cadw: Welsh Historic Monuments
February 1999**



A R C H A E O L O G
CAMBRIA
A R C H A E O L O G Y

1.0 INTRODUCTION

1.1 Summary

Standing Building recording, Topographic, and geophysical surveys were undertaken to record the current nature and extent of the remains of Whitland abbey and its surroundings. As an archive, the results of these surveys would form the basis for future interpretation and management of the site.

1.2 Project Outline

The objectives of the work undertaken were as follows:

- To record the surviving masonry and architectural details of the medieval abbey buildings before they deteriorate further.
- To obtain a plan of the extent and layout of the abbey buildings to enable comparisons with other Cistercian abbey sites.
- To record the landscape features associated with the abbey that survive in the surrounding fields in order to place the abbey in its wider setting.

These aims were to be achieved through a combination of topographic and geophysical surveys of the abbey and its surroundings, and a photographic record and scale drawings of elevations of the surviving standing walls. The resulting data was to be presented as an archive forming the basis of a synthesis of the whole site in the future. In addition to providing a more complete record and understanding of the character and extent of the abbey remains, the results of the project will provide a basis for the urgently required consolidation and future management of the site.

1.3 Site Description

Most of the surviving medieval stonework is incorporated into the 19th century walled garden that lies to the south of the remains of the abbey church. Portions of the north and west walls of the garden appear to be of medieval origin, although it is clear that there have been episodes of repair and rebuilding. In addition, a portion of what appears to be the west wall of the medieval cloister wall survives within the garden, having apparently been incorporated into a later building, glasshouse, or garden feature. A fragment of what

is believed to be the abbey gate house survives upstanding in the field directly to the west of the walled garden.

Much of the surviving stonework is considerably overgrown with ivy and occasionally small trees. This vegetation is damaging the stonework considerably. The tops of walls, and other areas where core work is exposed are particularly unstable, and actively collapsing. Here the ivy growth is perhaps helping to hold the stonework in place. For the purposes of this project it was decided only to trim back the ivy, since wholesale removal would only further destabilize the walls.

2.0 METHODOLOGY

2.1 Standing Building Recording *EVENT PRN 49663*

The entire length of the west wall of the garden was recorded along with a portion of the *PRN 37103* north wall (to the west of the doorway leading to the church remains), the remnant of the western cloister wall running south from the north wall of the garden, and the remnant of the gate house.

Elevations of the walls were drawn at a scale of 1:20 presenting the wall profiles and indicating major architectural features. Details of the stonework were not drawn, but were recorded photographically. A regular grid was strung out on the faces of the walls (indicated on the drawn elevations) as a framework for the photographs, to enable photogrametric rectification on a stone by stone basis, to be carried out at a later date.

Colour and black and white prints were taken of the entire lengths of the walls in overlapping sections centered on consecutive panels of the string grid. In places where the ivy growth was too thick and the stonework too unstable, it was not possible to string out a grid for photography.

2.2 Geophysical Survey *EVENT PRN 49664*

The geophysical survey was undertaken by Archaeophysica Ltd. Both magnetometry and resistivity surveys were carried out within the area of the abbey church, the walled garden and the field immediately to the west. Ground conditions were good within the church and garden, but the field to the west was found to be too saturated for effective survey.

Although often providing clear evidence of the plan and extent of the abbey remains existing below the surface, the results of the geophysical surveys are in some instances ambiguous, and any interpretations must remain tentative until tested or proven through excavation. This is especially the case when considering the phasing of possible repairs rebuilds and additions to the monastic complex.

The report on the results of the geophysical surveys, provided by the company contracted to undertake the work is included as an appendix to this report. No attempt has been made to interpret or synthesise the results at this stage.

2.3 Topographic Survey

EVENT PRN 49665

The topographic contour survey undertaken by Mark Johnson of Landmark Surveys, covered the area enclosed by the fields directly to the south, west and north of the abbey remains, to which access was available. The aim was to record both the general lie of the land presumed to have been within the abbey's curtilage and any clear landscape features reflecting monastic land use. Where necessary, hachures have been added to enhance the clarity of significant features.

In the field immediately to the north of the church, there were numerous subtle undulations and level areas that would not be apparent on a contour map. It has been suggested that some of these may be house platforms, but since it is not possible to clearly define their limits, or to ascertain whether these features are of archaeological significance, no attempt has been made to represent them on the topographic survey map.

3.0 RESULTS AND OBSERVATIONS

In the absence of elevation drawings with details of the stonework it is difficult to discuss details of the walls construction. At this stage therefore, only general descriptions of the walls are presented, with reference to the panel numbers in which they occur so that they can be located in the photographic record.

This project has only intended to gather data and create an archive for further analysis and interpretation. No attempt has been made here to interpret or synthesize the various surveys into a definitive report on Whitland abbey as a whole.

3.1 West Wall of Garden

The west wall of the garden is constructed from greyish Carboniferous Limestone, assumed to be locally quarried. Where present, dressed Oolitic Limestone is used for decorative detail. The wall appears to have two main building phases, the original monastic wall, and a Victorian extension. There is a difference in the ground level on each side of the wall. To the west, on the outside of the walled garden, the ground level is up to 0.50m lower than the level inside the garden. The higher ground levels inside the garden are assumed to reflect better preservation of underlying abbey remains, and perhaps a build up of garden soil. If so, this may suggest that to the west of the garden, the abbey remains have been quarried for stone (with the exception of the remnant of the

possible gatehouse). The Wall survives to its highest (approximately 6.0m) at its north end where it abuts the north wall of the garden. This is also however, the least well preserved section of the wall, being generally irregular, overgrown and unstable. In contrast, the Victorian extension consists of a series of four 9.0m long horizontal sections of wall. Each section steps down 0.40m to the south. The tops of the wall are beveled (sloping down from west to east) and capped with concrete.

It seems likely that the remains of the abbey walls were incorporated into the walled garden as a 'romantic' feature. It is also possible that as garden features they were modified for aesthetic purposes.

West Face - Later Rebuild

The west face of the garden wall seems generally better preserved than the east face, with ivy growth being less established. As a result architectural details are clearer. There appears to be a distinct change in the size of stones and character of construction at the southern end of Panel 10 (see figure 2). South of this point is considered to be a 19th Century rebuild of the wall. Stones are generally smaller and more carefully dressed, with better preserved mortar/pointing. There is no clear coursing in the construction of this section of wall, but the overall effect is neater in comparison to the Medieval wall. It is also from this point that the sloped concrete capping (visible on the east face of the wall) begins.

The fact that this section of wall is rebuilt has implications for the interpretation of the blocked doorway (in Panel 9). The alignment of this doorway with both the gate house and the gap in the north-south cloister wall (where it joins the greenhouse) may suggest that its position represents a doorway present in the original medieval building plan. It would presumably have been included as an architectural curiosity when the wall was rebuilt. Alternatively, the doorway may have been a 19th Century embellishment re-using medieval dressed stone to create a doorway into the garden that was aligned with later garden features.

It is perhaps noteworthy that there are no other architectural features in the wall to the south of the blocked doorway. This may suggest that the wall did not originally continue so far south, so that there were no further architectural features that could be incorporated into the later rebuild.

West Face - Medieval Build

From Panel 11 northwards, the wall is thought to be the original medieval build. There is little or no surviving mortar or pointing and the stonework seems to be less carefully

dressed. Although there are no clear courses can be seen in the stonework, in some instances thin flat stones have been used to level up above large irregular stones.

The top of the wall does not appear to be capped with concrete as it is in the rebuilt section. As a result there has been more extensive growth of vegetation which may be obscuring architectural features, especially above panels 13 and 14.

The northern end of the wall is considerably overgrown with ivy, which while it is to some extent holding the stonework together, is also causing it to collapse. The upper parts of the wall are distinctly unstable and bow out to an alarming degree. Many of the voids visible in the wall face are thought to be where stones have fallen, rather than putlog holes.

The clearest features in the wall are two 'vault offsets', protruding from the face of the wall from 0.10m to 0.25m, which would have supported vaults running east - west. The southernmost vault appears to have been repaired (above Panel 16) with blocks of Bath stone. There is no clear evidence that further vaults continued to the south.

The northern limit of the wall has collapsed, exposing core work. It appears to have abutted the wall that forms the north wall of the garden. Although it is on a similar alignment, it is uncertain whether this wall is the original south wall of the church. (see discussion of the east face of this wall).

Due to the collapse of the northern end of the west garden wall, there is no surviving evidence for a wall running west although one can be assumed to have existed (forming the north wall of the vault).

Within the build of the medieval wall occasional dressed and decorated Oolitic limestones can be identified. These could either be stone masons debris incorporated into the original construction, or might indicate that parts of the abbey have been built using stone from earlier buildings.

East Face of Rebuilt Section

The East face of the rebuilt section of the garden wall differs slightly from the west face. (see figure 1) Firstly, there is more extensive ivy growth. This is most pervasive along the top of the wall and has caused considerable damage to the sloping concrete wall capping. In addition, possibly due to its aspect and the degree of weathering and ivy growth, there is much poorer survival of mortar/pointing. The distinctions between the stonework of the later rebuild and the original section that were visible on the western face are much less distinct on the east. The size of stones and the mode of construction are harder to differentiate. This may suggest that only the west face of the wall has been rebuilt and repointed.

As with the western face of the wall, the only architectural feature in the rebuilt section is the blocked doorway (Panel 9). On this side of the wall the blocked doorway forms an alcove, which may mirror the alcove in Panel 10 (see below). The doorway is severely damaged by ivy and a tree sapling.

A few meters to the north of the blocked doorway is another alcove, of which there is no trace on the west face. It does, however, correspond exactly to the point on the western face, where the interface between the original and later builds is apparent, suggesting that this alcove is an original medieval feature (possibly a fireplace?). Its exact character is obscured by fallen stones, ivy and tree saplings, but it may have been utilized as a garden feature in the Victorian period, forming a pair with the alcove formed by the blocked doorway.

East Face - Medieval Section

As noted previously, the top of original medieval stretch of wall (from Panel 11 northwards), is irregular and not capped with concrete. The stones are generally larger and although there are no strict courses visible in the stonework, the use of thin flat stones to level up between courses of larger stones is clearer than was the case on the western face. Ivy growth obscures any architectural features that may survive along the top of the wall, becoming especially problematic north of Panel 13.

Where the wall survives to its greatest height it is largely obscured by ivy growth. This is currently helping to consolidate the tops of the wall which are in a very precarious state. In its present condition it was not possible to locate any putlog holes or other architectural features in this face of the wall.

At the northern end of the wall (Panels 16 and 17) there appears to be a repair or rebuild to the wall (see figure 1). Its southern edge is obscured by ivy growth, and its north edge appears to be obscured by a buttress extending 0.35m out from the wall face (Panel 18). The stone used in the repair and the buttress is markedly different from the rest of the wall, consisting of blocks of worked Oolitic Limestone. It is unclear whether this represents a monastic period repair, or a repair and strengthening to the wall when the north wall of the garden was built. The change in stonework is not visible in the west face of the wall.

3.2 West Wall of the cloister

A 5m stretch of what is believed to be the west wall of the cloister, runs south from the north wall of the garden (see figure 3). The line of the wall appears to continue southwards as a low pile of rubble (which may have resembled a wall more formally in the past), until it reaches the late greenhouse foundations (apparently coinciding with the line of the southern cloister wall). The cloister wall appears to abut the north wall of the garden. The tallest surviving portion of upstanding wall is in a very fragile condition, and cannot be expected to survive much longer in its present state.

West Face

Apart from two putlog holes, there are no architectural features in this face of the wall. It is not clear whether this was an external or internal wall face.

East Face

In addition to two putlog holes, the east face of the cloister wall exhibits a ledge 0.18m wide, apparently running the surviving length of the wall. It is presumed that this was to support a roof around the cloister. It is possible that this portion of wall has survived through being incorporated into a later building, greenhouse, or as a 'romantic' feature.

3.3 North wall of Garden

Although the stretch of wall forming the north wall of the garden is mostly late in date, it is possible that at its western end (between the west wall of the cloister and the west wall of the garden) its southern face is of medieval date.

Despite uncertainty as to the antiquity of the north wall of the garden, it was photographically recorded, but is not represented in the figures accompanying this report since it was devoid of architectural features, but exists in the archive.

Immediately to the east of the west wall of the cloister, the remnants of one side of a possible doorway are visible in the south face of the northern garden wall (see figure 4). It is, however not certain that this remnant is medieval in date, and could relate to post medieval re-use of some of the site. The stone used in this section of wall differs considerably from that used elsewhere, and the doorway remnant is not constructed from dressed Oolitic Limestone (as might be expected).

3.4 Remnant of Gatehouse?

In the field immediately to the west of the walled garden is a remnant of upstanding stonework running east-west. This is believed to be part of the abbey gate house. The wall is in a very overgrown and fragile state. Only limited removal of ivy was undertaken so only a small amount of stonework was clearly visible (see figure 5). One putlog hole was visible on the south face of the wall, but other architectural features may have been obscured by ivy growth. The fact that this wall sits on higher ground than its surroundings may suggest that the area has been robbed of stone.

4.0 RECOMMENDATIONS

As has been mentioned throughout this report, the upstanding remains of Whitland abbey, especially the taller stretches, are in a critical condition and are at present actively collapsing. Without causing further damage, it was only possible to record stonework and architectural features that were visible without removal of well established ivy. Any further recording would have to be done immediately before, or at the same time as consolidation of the stonework was undertaken. Further deterioration of the surviving walls would result in the loss of what architectural details still survive, and the overall character of the remains would be severely diminished. It is therefore suggested that if at all possible any consolidation of the monument that can be arranged, should be undertaken as soon as possible.

5.0 ARCHIVE DEPOSITION

The main archive for this project (containing original drawings, photographs, negatives, source materials and documentation), is stored at the offices of *Archaeoleg CAMBRIA Archaeology*. A second archive has been prepared for CADW containing copies of documents from the original archive. Documents included in the duplicate archive are indicated by asterisks on the list below.

INDEX TO THE ARCHIVE

- A.1 Report-Project summary*
- A.2 Report- Disc
- A.3 Geophysical Survey Report*
- A.4 Related Articles

- B.1 Survey Data - Disc

- C.1 Catalogue of all Drawings*
- C.2 Copies of Drawings for the Report*
- C.3 Topographic Survey Drawings 1 & 2 - hard copy output*

- D.1 Catalogue of Photographs*
- D.2 Black and White and colour print negatives (stored in SMR room)
- D.3 Black and White Contact Prints*
- D.4 Colour prints*

- E.1 Project Design*

- F.1 Various Correspondence

6.0 ACKNOWLEDGMENTS

Overall project organization was undertaken by Duncan Schlee on behalf of *Archaeoleg CAMBRIA Archaeology*. Building recording was achieved with the help of Hubert Wilson of *Archaeoleg CAMBRIA Archaeology*. Advice, guidance and assistance were provided by Don Benson, Pete Crane, Ken Murphy, and others at *Archaeoleg CAMBRIA Archaeology*. Topographic survey was undertaken by Mark Johnson of Landmark Surveys. The geophysical surveys were undertaken by Thomas Hurley (and others) of Archaeophysica Ltd.

7.0 REFERENCES

- | | | |
|----------|--|---------------------|
| T. James | Whitland Abbey. A draught feasibility study. | Unpublished Report. |
| P. Crane | Extracts from unpublished report. | Forthcoming. |

8.0 FIGURES

- | | |
|-----------------|--|
| Figure 1 | East Facing Elevation of Western Garden Wall
(with location of photogrametric grid) |
| Figure 2 | West Facing Elevation of Western Garden Wall
(showing location of photogrametric grid) |
| Figure 3 | Elevations of Remnant of Cloister Wall
(showing location of photogrametric grid) |
| Figure 4 | Elevation of part of Northern Garden Wall
(showing location of photogrametric grid) |
| Figure 5 | Elevation of South Face of Remnant of Possible Gatehouse Wall
(showing location of photogrametric grid) |

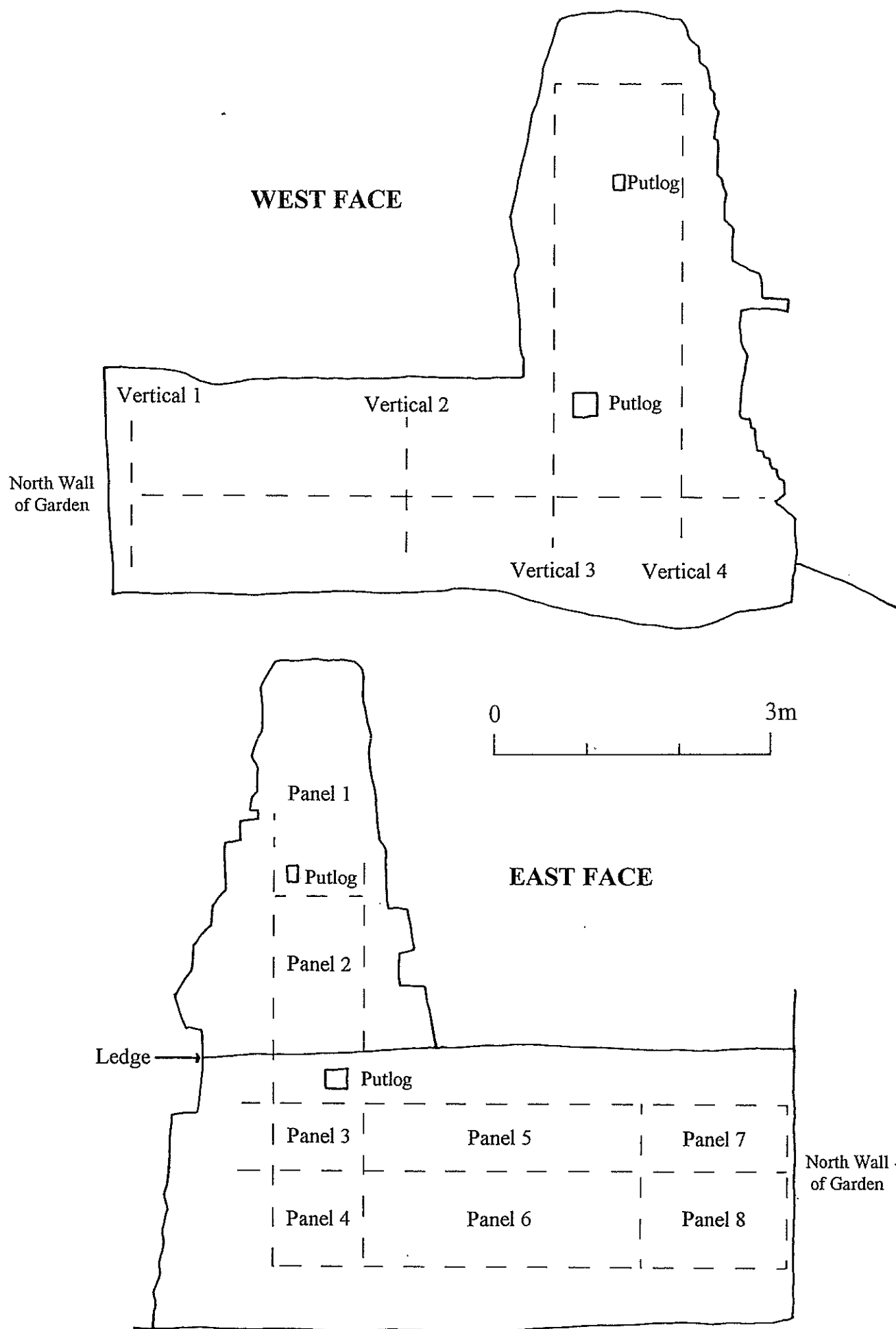


Figure 3: Elevations of Remnant of Cloister Wall (showing location of photogrammetric grid).

WEST

EAST

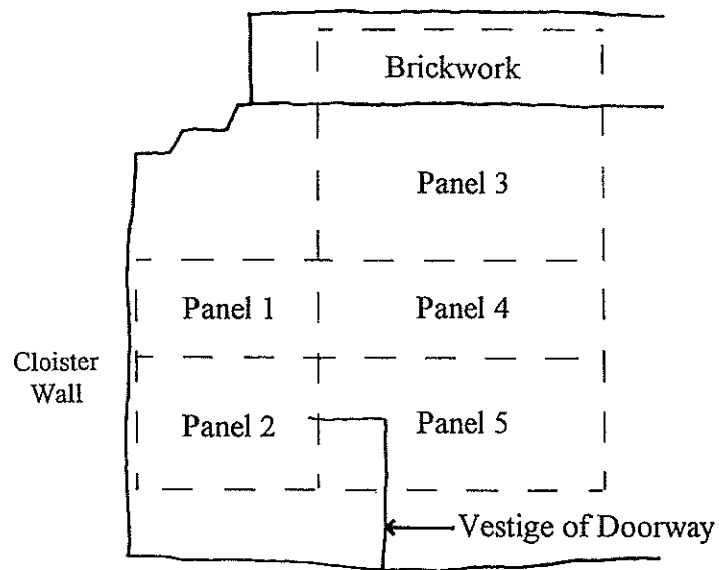


Figure 4: Elevation of Part of Northern Garden Wall (showing location of photogrammetric grid).

WEST

EAST

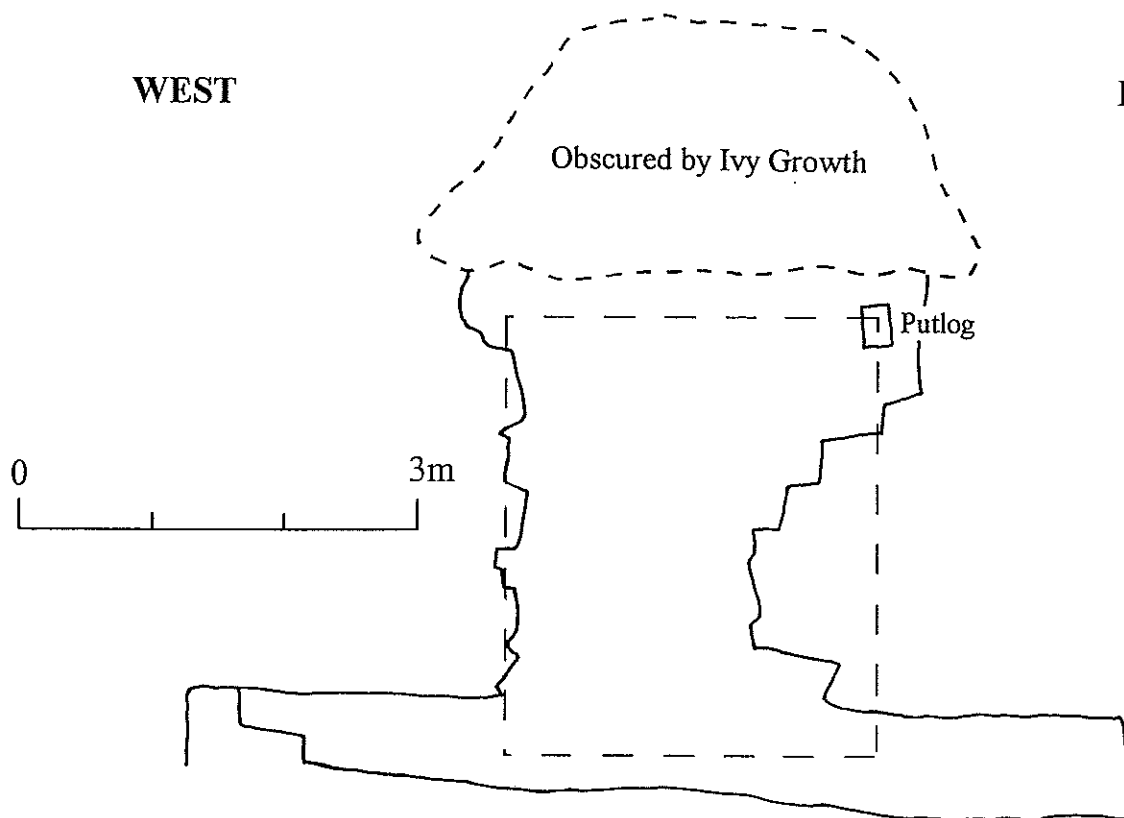


Figure 5: Elevation of South Face of Remnant of Possible Gatehouse Wall (showing location of photogrammetric grid).

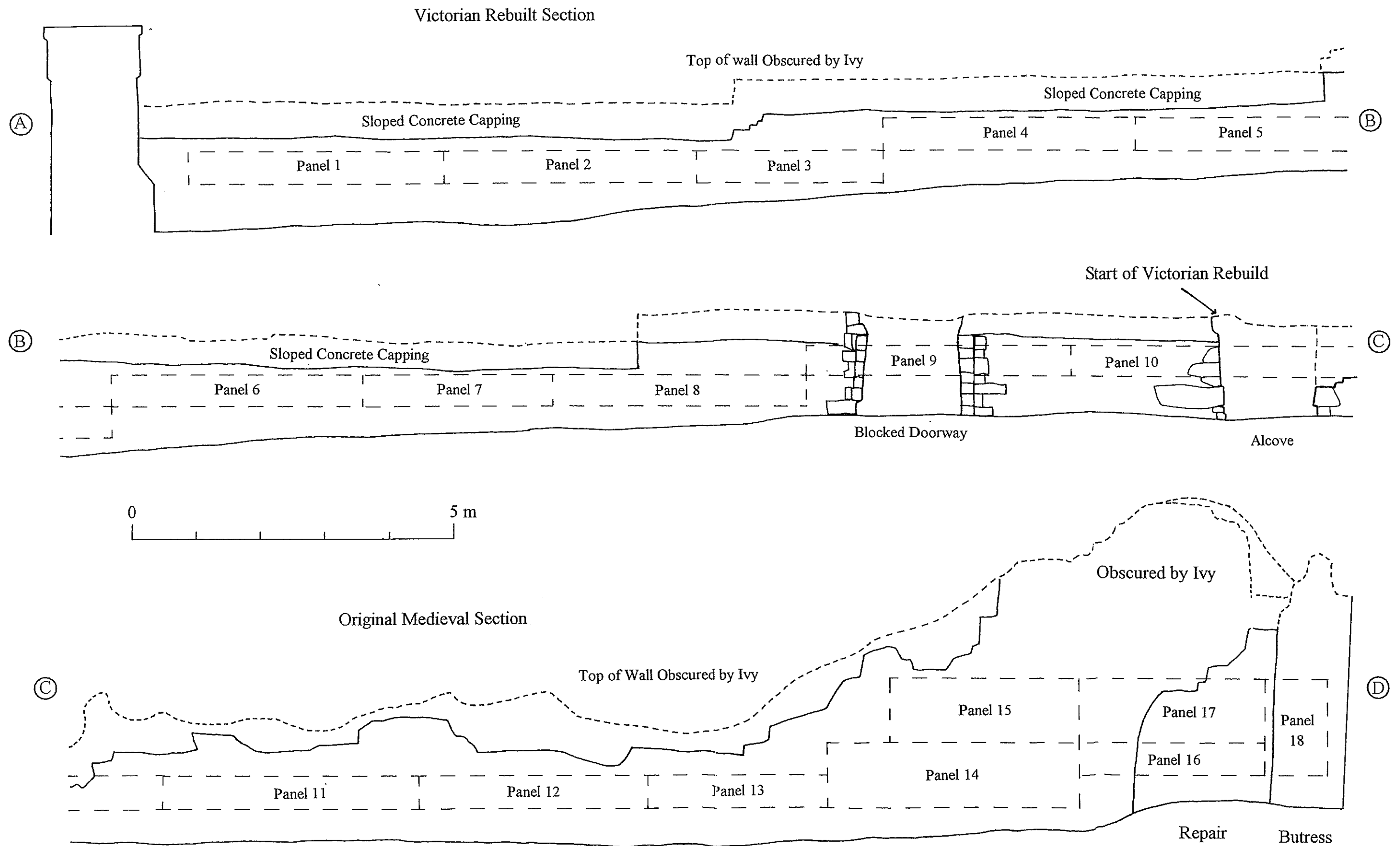


Figure 1: East Facing Elevation of Western Garden Wall (with location of photogrammetric grid).

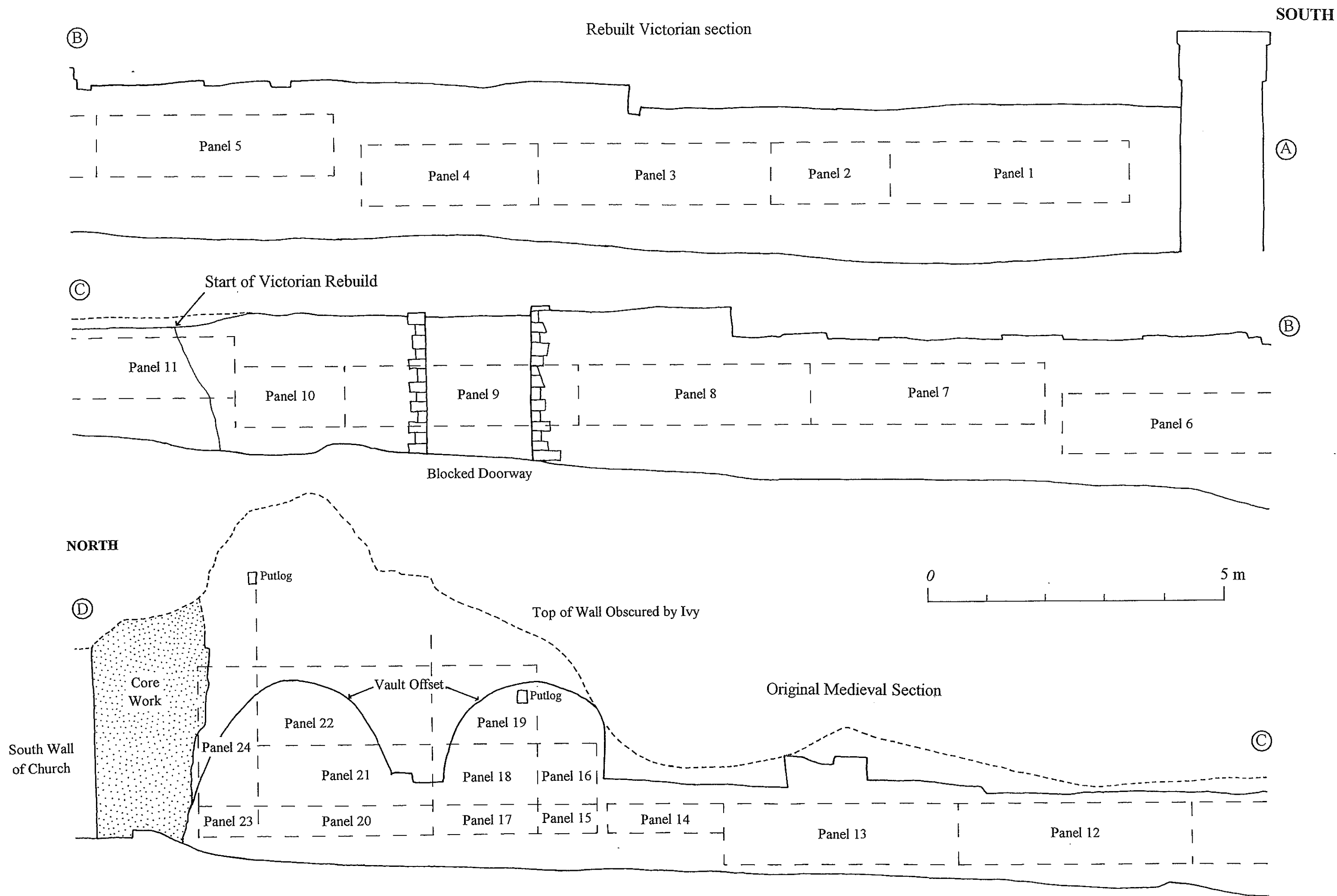


Figure 2: West Facing Elevation of Western Garden Wall (showing location of photogrammetric grid).