REPORT ON ARCHAEOLOGICAL WATCHING BRIEF – DRAINAGE WORKS IN CHURCHYARD OF ST. ANDREWS PARISH CHURCH, WEST WRATTING, CAMBRIDGE, CB21 5NA, NGR TL6060852348

I. INTRODUCTION

St. Andrews is a stone-built church of XIVth Century and later date, situated in the village of West Wratting, Cambridgeshire. Architecturally, it consists of an aisle-less Nave, a Chancel, and a West Tower, and serves as the Parish Church for the village. As part of a programme of repairs and refurbishments to this Grade II*-listed building, new rainwater drainage facilities were to be installed. As this would involve substantial disturbance to the Churchyard and Burial Ground deposits, an archaeological watching brief was requested by the responsible authorities.

The works are discussed in a document entitled "**Pre-contract Meeting Agenda, held on 24**th **June 2019**" with "ref. 18-30 New Drainage and Masonry Repairs", issued on 1 July 2019 by Ashley Courtney Architects, and detailed in a series of architectural drawings with file references "18-30_nn" in PDF format, also issued by Ashley Courtney Architects.

West Wratting Parochial Church Council contact for these works was:

Sebastian Bain, Churchwarden 4 Haggis Gap Fulbourn Cambridge CB21 5HD

Responsible Architect and Principal Designer for the works was:

Ashley Courtney RIBA AABC 35 Roseford Road Cambridge CB4 2HD

Principal Contractor for the works was:

R. J. Pinnock & Sons Ltd 42A The Street Wallington Hertfordshire SG7 5SW Archaeologist and author of this report was:

Michael Gorman Lordship Farmhouse West Wratting Cambridge CB21 5LT

II. DRAINAGE WORKS

The primary disturbance to the churchyard deposits resulted from the excavation of two large rain-water soakaways, with associated drain runs from down-pipes on the south side of the Church. Initially, three separate soakaways were proposed, but after on-site discussions with the contractors, the two easternmost Soakaways 1 and 2 were combined into a single larger one. Drain runs for this Soakaway 1&2 were re-routed compared to the earlier plans.

The depth below soil surface of the soakaways was controlled by the local slope of the churchyard. After excavation, the finished sizes of the two soakaways were approximately:

Soakaway 1&2	2.0m width	3.0m length	1.0m depth
Soakaway 3	2.0m width	1.3m length	1.5m depth

Drain run excavations were 300mm in width and of varying depth below the surface, again controlled by the local slope of the churchyard.

Locations of the soakaways and drain runs are plotted in Plan 1 at the end of the report. Views of the soakaways after excavation are given here as Figs. 1 - 4.



Fig. 1 Soakaway 1&2 after excavation, range rod totals 1.5m



Fig. 3 Soakaway 3 after excavation, range rod totals 1.5m



Fig. 2 Soakaway 1&2 after excavation, showing drain runs



Fig. 4 Soakaway 3 after excavation, showing drain run

III. CHARACTER OF THE EXCAVATIONS

The excavations for the drain runs were carried out generally by machine digging, with handdigging employed only where access was awkward or risky because of proximity of grave stones or above-ground burial chambers. The soakaways themselves were entirely excavated using a large JCB excavator with a toothed bucket.

The archaeologist worked closely with the machine operator, observing in general each bucket of spoil excavated, with the intention of immediately ceasing digging if associated human remains (a discrete grave or burial) were found. If any remains came to light, digging was halted while the archaeologist descended into the excavation and confirmed by hand digging that no other bones were associated. In fact, only three associated groups of skeletal material were found (see below Sect. V_B).

A close eye was also kept on the spoil heaps to the side of the excavation, and some material was recovered from these. The vast majority of all material recovered came as stray and unassociated finds of skeletal material from the soil matrix.

IV. STRATIGRAPHY OF CHURCHYARD

A well-developed turf/topsoil layer averaging ca. 200mm thickness lay on the surface. Underlying this was an undifferentiated dark yellowish soil matrix of a very mixed character. The general feeling was of a clayey loam, with a heavy admixture of clay lumps of varying sizes, and including flints and many fragments of chalk. This soil is obviously from its character, a re-worked and re-deposited soil rather than a natural deposit. This is as would be expected from a burial ground which is subject to repeated burials.

However, at the lower limit of excavation of Soakaway 3, at a depth of ca. 1.5 m below the soil surface, a clean clay of a pale tan-yellow colour with very infrequent chalk fragments was encountered. This is believed to be the natural boulder clay which underlies this region.

This observation suggests that there has been perhaps 1.4 - 1.5 metres of accumulation in this area of the churchyard. The Church is located on a north-sloping hillside, and it is thus unsurprising that there has been such a significant accumulation of soil by hill-wash over the centuries. Repeated disturbance by repeated burials will have encouraged this process.

V. HUMAN REMAINS RECOVERED

A substantial quantity (ca. 10 - 15 kilograms) of human skeletal remains was recovered during the excavations. The majority of the material recovered was isolated bones or bone fragments which were distributed throughout the general soil matrix. Despite careful attention during the excavations, only three discrete and associated groupings of bones were found, as discussed further below.

A. ISOLATED BONES OR BONE FRAGMENTS FROM SOIL MATRIX

Because of the large quantity of skeletal material in this category, it was not possible to list each bone recovered. Only summary photographs have been taken, showing the entire mass of material recovered from the particular context. Where relevant, a detail showing some of the more interesting bones is included.

1. Soakaway 1&2



Fig. 5 Bone material recovered from Soakaway 1&2, scale totals 250mm



Fig. 6 Selection of material from Soakaway 1&2, scale totals 250mm

2. Drain Run 1&2



Fig. 7 Material from Drain Run 1&2, scale totals 250mm

3. Soakaway 3





Fig. 8 Bone material recovered from Soakaway 3, scale totals 250mm

Fig. 9 Selection of material from Soakaway 3, scale totals 250mm

As well as showing fragments of iron coffin furniture, Fig. 9 illustrates clearly the mixed nature of the remains. At upper right is an inverted child's cranium, solidly packed with soil in which is embedded two unrelated smaller bones, one of which appears to be a scapula.

4. Drain Run 3



Fig. 10 Material from Drain Run 3, scale totals 250mm

B. GROUPS OF ASSOCIATED BONES, DISCRETE BURIALS

Only three such groupings were encountered during the excavations. All three examples were encountered at the lower limit of excavation in Soakaway 3, and all were unfortunately embedded in the vertical sections of the excavation. Constraints on time and permissible disturbance of the sections prohibited any extensive investigation of these, and work was limited to recovery of as much material as possible from each burial, without seriously undercutting the section.

Locations of the three burials were as follows:

Burial 1	East section of Soakaway 3, ca. 1.5m below soil surface
-----------------	---

- Burial 2 NE corner of Soakaway 3, """""
- Burial 3 NW corner of Soakaway 3, """""

<u>1. Burial 1</u>



Fig. 11 Adult burial. Cranial & facial bones, long bone fragments, scale totals 250mm

2. Burial 2



Fig. 12 Burial 2 during excavation, scale totals 250mm



Fig. 13 Adult burial. Facial and mandible bones, scale totals 250mm

3. Burial 3



Fig. 14 Burial 3 during excavation, scale totals 250mm



Fig. 15 Mixed burial, containing adult long bones together with rib bones of a very young child, possibly even an infant, scale totals 250mm

C. PATHOLOGY

Unfortunately there was minimal time available during the excavation for any study of the bones, and no resources available for any post-excavation studies of this large sample of material. A single example was noticed which exhibited a possible edged weapon trauma.

This find came from Burial 3, and seems to be the terminal of an adult long bone. It is illustrated below as Fig. 16, with a different view in Fig. 17.



Fig. 16 Cut on bone from edged weapon – view 1, scale interval 50mm



Fig. 17 Cut on bone from edged weapon – view 2, scale interval 50mm

The cut was not fresh, and was solidly filled with soil, indicating that it did not occur during excavation. There was no sign of bone re-growth or healing, indicating that death occurred at the time or very soon after the cut was inflicted. The cut is deep (ca. 10mm), and on such tough bone material, considerable force would have been required to inflict it. A heavy bladed weapon such as a sword or axe is suggested.

VI. ARTEFACTS RECOVERED

Relatively few artefacts were recovered, as one would expect from a medieval Christian burial ground. These have been photographed in association with their respective contexts. They included a short section of a clay pipe stem, several sherds of post-medieval pottery, the broken base of a glass lamp chimney, and several square iron nails. The only artefacts of note were a group of corroded iron coffin furniture, including coffin handles, found in Soakaway 3. These were too heavily corroded to venture a date.

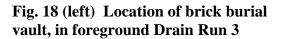
VII. BURIAL STRUCTURE DISCOVERED

A previously unknown burial structure was discovered during these works. Photographs are shown Figs. 18 and 19 below, and the approximate location is marked on Plan 1 below.





Fig. 19 (above) Detail of brick burial vault, scale totals 250mm



Only a portion of the top of this structure was exposed, in the drain run excavation for Soakaway 3. No further excavations were undertaken on the structure, apart from limited cleaning and tidying for photographs. Despite this, enough was exposed to show clearly that the structure was the brick vault for an underground burial chamber. The top of this vault was approximately 600mm below soil surface level.

The top of the exposed brickwork exhibited a distinct curve, oriented essentially along the drain run, and indicating a curved vault with the long axis on the same orientation as that of the Church. The exposed area of the vault was constructed of a type of soft reddish brick known as a "red rubber", and these were embedded and bonded in a lime mortar. There was no definite indication of date, but a late $18^{th} - 19^{th}$ C. date is probable.

VIII. DISCUSSION

A. GENERAL

In general terms, the materials recovered during these excavations were very much in line with what would be expected from a medieval Churchyard/Burial Ground. There were in relative terms very few artefacts recovered, none especially remarkable.

In retrospect, and considering the volume of soil excavated (roughly 13 cubic metres), we were fortunate not to encounter a greater number of discrete graves or burials. Of course, in siting the soakaways, care was taken to avoid the immediate vicinity of extant grave monuments, but this is hardly a guarantee of avoiding unmarked burials in a centuries-old burial ground.

The volume of skeletal material recovered was substantial, some 10 - 15 kilograms weight, the large majority of which, as detailed above, consisted of stray and un-associated finds from within the general soil matrix. The three discrete graves/burials were unfortunately all partially embedded in the vertical sections of the excavation for Soakaway 3, which significantly hampered recovery.

B. COMMENTS ON BURIALS

Burials 1 and 2 of adults were somewhat jumbled, but the high proportion of cranial and facial bones recovered might suggest that we have encountered only the head ends of the skeletons, and that the remainder of both of these skeletons extends on into the eastern section of Soakaway 3. As noted above, it was not possible to investigate deeper into the section. Also, in the absence of a bone specialist, it has not been possible to sex the remains, nor to give a better estimate of age at death, other than to observe that they are adults. The good condition of the dentition might at least suggest that they were not elderly.

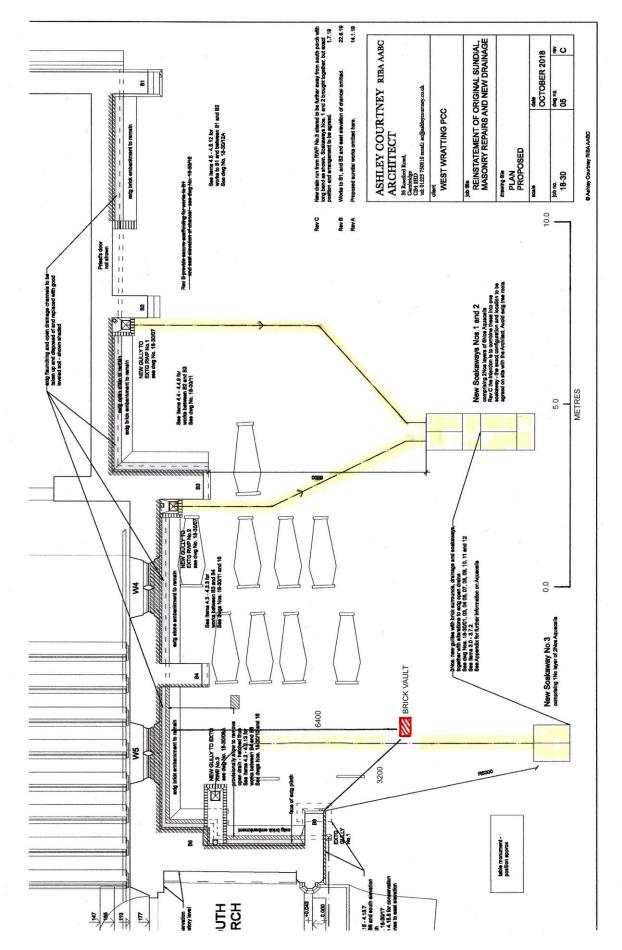
Burial 3 is easily the most interesting of those encountered. As noted, it contained a mix of adult bones with the rib bones from a very young child, possibly even an infant. Given the high incidence of death at childbirth in the Medieval period, sometimes of both mother and infant, it is tempting to infer that we have here a double burial of mother and new-born infant.

This attractive suggestion is, however, somewhat put awry when we note that one adult bone from this burial is that discussed above (Sect. V_C), which seems to have suffered a heavy blow from a bladed weapon. This is a type of injury which one would much more expect to see on a man-at-arms or soldier, rather than a woman who had recently given birth. Further speculation is of course possible, but perhaps not especially helpful in this context.

A final thought is that, because these three burials lie on or very near to the natural boulder clay, and without any obvious indications in the deposits above of a grave cutting, it is possible that they are quite early in date. However, this suggestion should be treated with caution, as the type of excavation employed (machine digging with toothed bucket) tends to obscure the subtle soil variations which would reveal a grave cutting.

IX. RE-INTERMENT

At the time of writing, arrangements are not yet complete for re-interment of the remains. These will be completed in due course, and the remains of these individuals will be laid respectfully to rest again with appropriate ceremony.



Plan 1. Architects plan of drainage works, showing location of drain runs & soakaways (highlighted), and location of newly discovered brick burial vault