

Archaeological
Monitoring at the Church
of the Holy Trinity,
Chrishall, Essex

March 2016



CHURCH OF THE HOLY TRINITY, CHRISHALL, ESSEX

ARCHAEOLOGICAL MONITORING

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Archaeological Monitoring at the Church of the Holy Trinity, Chrishall, Essex

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ABSTRACT

This report describes the results of archaeological monitoring carried out by Pre-Construct Archaeology at Holy Trinity Church, Chrishall, Essex (centred on NGR TL 4515 3863) between 27th October and 16th November 2015. The archaeological work was commissioned by Melanie Hey of Freeland Rees Roberts Architects on behalf of Chrishall Parochial Church Council prior to the removal and reduction of the nave floor and side aisles to facilitate a new floor. The aim of the work was to monitor and record any archaeological remains which would be damaged or destroyed by the alterations.

Monitoring of the removal of the pews did not reveal any archaeological features, evidence of earlier structures or any artefacts. Repair of the pews undertaken in the 1990s involved the replacement of the softwood beams which had supported the pew bases. Voids recorded beneath the pews are thought to have been excavated in the 19th century when the permanent pews were added. The voids allowed for the circulation of air to prevent damage to the pews from the damp rising up from the chalk below.

Twelve individual burials were identified and recorded in the eastern end of the south aisle during the monitoring of the ground reduction in this area. It is assumed that these infants were all originally buried outside of the church. As the south aisle was not added until 15th century then these burials must pre-date this extension of the building. The majority of individuals examined were infants. This is unsurprising on two levels; the high level of infant mortality which existed at the time and the placement of infants up against the church walls. This placement of burials by the original church wall was standard practice through Saxon times and may well have continued into this period.

The alterations in the design of the laying of the floor ensured that no further remains would be disturbed. It is considered that based on the number of burials exposed in this small area/strip that a significant number of further remains lay undisturbed within the south aisle.

1 INTRODUCTION

- 1.1.1 Archaeological monitoring was undertaken by Pre-Construct Archaeology Ltd (PCA) at Holy Trinity Church, Chrishall, Essex (centred on Ordnance Survey National Grid Reference (NGR) TL 4515 3863) on four visits between 27th October and 15th November 2015.
- 1.1.2 The monitoring work was undertaken in accordance with a Written Scheme of Investigation (WSI) prepared by PCA (Slater 2015) in response to a Brief issued by Essex County Council Place Services (ECCPS) (Havis 2015) which required monitoring and recording of all archaeological features impacted on by the proposed alterations. The archaeological works comprised the monitoring of groundwork to ensure any deposits disturbed were appropriately excavated.
- 1.1.3 The aim of the monitoring was to characterise the nature, extent, date, state of preservation and significance of any archaeological features or deposits within the areas affected by the ground reduction for the new floor, to record any such remains prior to their destruction, and (after recording) to remove any chancel material for reburial elsewhere within the church grounds.
- 1.1.4 Specific research aims were:
- Evidence of earlier phases of the Church
 - Evidence of grave cuts.
- 1.1.5 Archaeological monitoring of all groundworks associated with the removal and reduction of the nave floor and side aisles was undertaken. The floor level was reduced by 300mm and the final finished floor level (FFL) will be the same as existing floor level.
- 1.1.6 The archaeological work was commissioned by Melanie Hey of Freeland Rees Roberts Architects on behalf of Chrishall Parochial Church Council.
- 1.1.7 This report describes the results of the archaeological monitoring at Holy Trinity Church, Chrishall. The site archive will be deposited at Saffron Walden Museum.

2 LOCATION, GEOLOGY AND TOPOGRAPHY

- 2.1.1 The church is situated in an isolated position on a hill to the south-east of the village of Chrishall (Figure 1).
- 2.1.2 The underlying bedrock is comprised of Lewes Nodular Chalk Formation and Seaford Chalk Formation – Chalk (British Geological Survey; Website 1). Sedimentary Bedrock formed approximately 84 to 94 million years ago in the Cretaceous Period when the local environment was dominated by warm chalk seas.
- 2.1.3 The superficial deposits consist of Lowestoft Formation – Diamicton (BGS: Website 1). These were formed up to 2 million years ago in the Quaternary Period when the local environment was dominated by ice age conditions.
- 2.1.4 The centre of the site is located at c.122m above Ordnance Datum (AOD).

3 HISTORICAL BACKGROUND

The Church of the Holy Trinity in Chrishall is Grade I listed. The listed building description is as follows:

“A pebble rubble church mainly of the C15 but incorporating some C12-C13 remains in an arch at the east end of the north arcade and in the tower arch. The north and south aisles and the clerestorey were added in the C15 and the chancel was rebuilt. The west tower, aisles and nave are all embattled and the tower as a parapet of flint and stone chequer work. The fittings include a particularly fine C14 brass on the tomb to John and Joan de la Pole (circa 1375) with 2 figures under a triple canopy. There are also C15 brasses and a C14 recumbent stone effigy of a woman in a recessed tomb with depressed segmental arches and battlements. The church is situated in an isolated position on a hill. Graded for its architectural and historical value. (RCHM 1)” (<http://www.britishlistedbuildings.co.uk>).

Much of the historical background has been derived from a booklet purchased from inside the church (Anon 2001, revised 2003)

3.1 12th Century

- 3.1.1 One of the earliest records of the church dates back to 1100 and makes reference of the vicar Richard de Bologne.
- 3.1.2 The name of Chrishall (Crist-hale in early records) suggests the village may have a pre-Norman origin.
- 3.1.3 All that currently remains of the 12th century building is the lower part of the tower and a shelf behind the pulpit which is possibly the top of an original column.

3.2 13th and 14th Century

- 3.2.1 The church was largely re-built in this period and rededicated to the Holy Trinity during the 13th and 14th century. The present font and brasses (now located in the south aisle) date from this period. A brass dated c.1380 dedicated to Sir John de la Pole and his wife was uncovered when the floor

of the chancel was raised in the 19th century.

3.3 15th Century

3.3.1 The north aisle was destroyed when the present north and south aisles were built in around 1400. The nave was rebuilt and the clerestory added. The chancel was also rebuilt, probably outside the walls of the previous chancel and all at one level. The 12th century tower was altered during this time and a second stage added during the 15th century.

3.3.2 The church is thought to have been at the centre of the village at this time, surrounded by houses and in regular use for trade and commerce, social gatherings as well as for regular services.

3.4 16th Century

3.4.1 This century witnessed much change in the nature of worship and interior furnishings and fixtures. The stone altars were destroyed in 1550 by order and tables brought into the church, placed in the nave or the in the centre of the chancel. English service books and bibles were introduced and services were mostly limited to morning and evening prayer. Little structural change took place during this time however, although the north porch was built.

3.5 17th and 18th Century

3.5.1 The plague which swept across England during the 17th century changed the shape of many villages including Chrishall. It is considered that the village was deliberately burned down to combat the spread of the disease and there is thought to be a communal grave in the churchyard of many of the victims. Structurally the only evidence of change during this period is the addition of a spirelet to the tower in the early 18th century.

3.6 Early 19th Century

3.6.1 A plan of the church dated to the early 1800s (not seen) shows a layout very different to that of today. The nave, chancel and sanctuary are all at the same level. Entering via the south door during this time, the font would be found in front, not to the left where it is currently located and there were no pews in the western half of the building – they were only to be found in the centre, none in either aisle, and in the chancel. The pulpit, ministers desk

and clerks desk were clustered in the nave against the second pillar and all facing south with family pews in front, to their right and left.

- 3.6.2 Between 1831 and 1833 a major alteration and restoration and enlargement programme was undertaken. Pews were added on the north wall, south wall and east wall of the south aisle. At a later date the font was moved to its current position to allow additional pews for school children. Around this time the north porch was brick paved.

3.7 Late 19th Century

- 3.7.1 The alterations of the 19th century continued in two major restoration projects in 1867-9 and 1878. From 1867-9 work included the complete rebuilding of the clerestory walls, the chancel arch, its piers and parapets, re-roofing of the nave and south aisle, renewal of a number of windows, rebuilding of the porch and a restoration of the whole of the building except for the chancel. More pews were added in the northwest corner of the nave and along the north aisle.

- 3.7.2 In 1878 the alterations were mainly to the chancel. The floor was raised considerably and the floor of the sanctuary even higher with steps and communion rail – the sill of the easternmost window in the north wall was raised. A vestry was built on the north side and the lower part of the middle window in the chancel north wall was destroyed when a new doorway was inserted below it. New pews were added in the chancel, the south doorway to the chancel was restored and the new south porch was built.

3.8 20th Century

- 3.8.1 In 1914 the tower was restored; two new bells were added and the spirelet removed. In 1926 the organ was restored or replaced, in 1938 oak candlesticks were added in the sanctuary and in 1946 electric lighting was installed. In 1968 repairs were carried out to the pulpit, lectern and prayer desk and a new bookcase and desk added in the west end.
- 3.8.2 In 1966-8 extensive restoration work was undertaken which included work to the roof timbers and lead, exterior walling, glazing, eaves gutters and down-pipes and a re-decoration of the chancel interior. In 1991 a new window was

added to the east end of the south aisle.

4 METHODOLOGY

4.1 Groundworks

- 4.1.1 The archaeological monitoring comprised two components : the recording of the area where pews were removed and the reduction of the floor in the south aisle (Figure 3).
- 4.1.2 Where the pews were removed, PCA attended to record the floor/ground level revealed in the voids below.
- 4.1.3 Ground reduction was initially carried out using a mechanical mini-digger under archaeological supervision. As soon as articulated human remains were observed, all excavation in this area was suspended to allow recording and excavation and further ground reduction was undertaken in this area by PCA archaeologists using hand tools to assess the presence and condition of any further remains.
- 4.1.4 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number and recorded on individual pre-printed forms (Taylor and Brown 2009). Archaeological processes recognised by the deposition of material are signified in this report by round brackets while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets. The record numbers assigned to cuts and deposits are entirely arbitrary and in no way reflect the chronological order in which events took place. Artefacts recovered during excavation were assigned to the record number of the deposit from which they were retrieved.
- 4.1.5 High-resolution digital photographs were taken of all relevant features and deposits, and were used to keep a record of the excavation process. In addition, general shots using monochrome film were taken, however lighting inside the building was not ideal for this.

4.2 Excavation of Human Remains

- 4.2.1 The remains were excavated in accordance with the ClfA guidelines (McKinley and Roberts, 1993). Skeleton numbers were allocated to those

articulated or partially articulated inhumations and their grave outline was plotted on a measured hand drawn plan. Disturbed bone was noted but not planned or allocated a skeleton number.

- 4.2.2 Articulated or partially articulated skeletons did undergo on-site analysis. General methods used in the osteological evaluation of all human skeletal material are those of Buikstra and Ubelaker (1994). An assessment of age was based on epiphyseal union in addition to metrical data for the infants (Schaefer, Black and Scheuer, 2009). The age categories used in this report are listed in Table 1. In keeping with standard practice, no attempt was made to sex immature individuals. The sex of the adult individuals was ascertained where possible from sexually dimorphic traits of the skeleton (Buikstra and Ubelaker, 1994) and metrical data. Each element was identified macroscopically; identification of elements allowed for completeness of skeleton to be ascertained. Pathologies were noted where present, with the type of lesion and location on the bone recorded.
- 4.2.3 Any disturbed or disarticulated bone was briefly analysed and bagged up separately to be reburied along with any coffin furniture or attachments.
- 4.2.4 No human remains or associated finds were removed from the church. All human bone and coffin attachments were placed in long-bone boxes and left in the church for reburial.

5 MONITORING RESULTS

5.1 Pew Removal

- 5.1.1 PCA attended to monitor and record the results of the pew removal on 28th October 2015. All pews were removed from the church and put into temporary storage prior to the start of the works. Plans to reinstate a number of the pews were in place and surplus, plainer pews were permanently removed. Photographs and brief descriptions of the pews were taken prior to their removal.
- 5.1.2 Pews were removed from the western end of the nave, main aisle and north and south aisles (Figure 3) (Plates 1, 2 and 3).
- 5.1.3 There were two types of pews noted prior to removal; these were photographed during a pre-works visit. There were plain pews located in the western end of the nave and against the walls of the north and south aisles (Plate 2) and more decorative ones with carved brackets on the ends located in the main aisle (Plate 3). The last two pews at the rear on either side of the main aisle of the nave had decorative carved ends depicting kneeling figures at prayer (Plates 4a and 4b).
- 5.1.4 On arrival of the first day of monitoring, the pews had been removed from all locations, in most places leaving the supporting beams and plinths into which the pews slotted in place. (Plate 5). The ground level below each pew was lower in all locations at approximately 300mm. As this was to be the final floor level no further reduction was required in these area.
- 5.1.5 Beneath each of the pews had been sitting on a softwood floor beneath which were softwood beams which suspended the pews over a void beneath. The contractors who were on site had worked within the church during restorations in 1992 and commented that they had laid these beams during repairs at this time.
- 5.1.6 The voids beneath the pews revealed exposed chalk foundations or natural chalk. These voids were presumably excavated in order to avoid resting the pews on the ground and therefore protecting them from damp. Sleeper walls

were created from blocks excavated to create the void to add support beneath the softwood pew bases. Bricks had been used in the northern edge of the excavated void located the western end of the nave, on the north side of the tower entrance (Figure 3) (Plate 6). Although it was not possible to remove a sample for dating or examination, average dimensions of the bricks were noted : 23cm x 6cm x 9cm. These bricks may have been used to support the pew plinths.

5.1.7 No artefacts were retrieved during this monitoring exercise.

5.1.8 It is likely that the pews were added into these permanent positions during the 19th century restoration projects. Between 1831 and 1833 a major alteration and restoration and enlargement programme was undertaken and pews were added on the north wall, south wall and east wall of the south aisle. It is documented that more pews were added in the northwest corner of the nave and along the north aisle during the restoration in the 1860s. There may have been pews in these locations but only fitted into permanent positions in the mid-late 19th century. A plan of the church dated to the early 1800s shows there were no pews in the western half of the building – they were only to be found in the centre, none in either aisle, or in the chancel.

5.2 Monitoring of Floor Reduction in the Southern Aisle

5.2.1 Monitoring of the reduction of the floor level in the south aisle was undertaken in November 2015. Articulated human bone was noted as the mechanical excavator began to reduce the ground level. Mechanical excavation was immediately suspended in this area to allow archaeological investigation using hand tools only (Plate 9).

5.2.2 Following the discovery of the burials in the south aisle located just below the floor level it was decided by the architects that a sloped floor would negate the need for further ground reduction and disturbance of more potential human remains in this area.

5.2.3 PCA exposed and recorded all articulated remains within the area which had already been reduced as well as a strip measuring approximately 8m by 2m which required further reduction (Figure 4). The alterations in the design of

the laying of the floor ensured that no further remains would be disturbed. It is considered that based on the number exposed in this small area/strip that a significant number of further remains lay undisturbed within the location of the south aisle beyond the area investigated as well as beneath.

5.2.4 The monitoring resulted in the discovery of twelve inhumations beneath the existing floor of the south aisle. The analysis resulted in the identification of three adults (including one partial adult) and ten infants (Figure 4).

5.2.5 The inhumations are discussed below in order of skeleton number, followed by a brief discussion on the disturbed material.

Burials Description and Results of On-site analysis

By Aileen Tierney

Skeleton 1 (Plates 10 and 11)

5.2.6 This infant was located c. 6.4m from the east wall of the south aisle and c. 2m from the south wall of the south aisle. It appears to be an isolated burial at this level. It was on a west - east orientation, extended supine with head turned north and both arms by its side. The grave has been truncated, evidenced by the truncated left femur. This individual was very well preserved with smaller skeletal elements such as hand phalanges surviving. Metrical data of the petrous portion of the temporal and the femur has aged this individual as an infant (more precisely a neonate between 40 prenatal weeks (full term) and 1.5 months).

Skeleton 2 (Plate 12)

5.2.7 This adult female was located c. 0.5m from the east wall of the south aisle and c. 2.5m from the south wall of the south aisle. It was on a west - east orientation, extended supine with both arms originally by its side. This individual was well preserved. Observations of epiphyseal fusion and general size have aged this individual as adult, but due to the lack of any degenerative changes on the bone, a narrower age category cannot be assigned. The greater sciatic notch scored 2/3 (?F/??), while a potentially associated fragment of occipital resulted in a nuchal crest scoring of 2 (?F); both of which suggest possible female. This was a large individual with

strong muscle attachments.

Skeleton 3 (Plates 12 and 13)

- 5.2.8 This infant was located c. 0.75m from the east wall of the south aisle and c. 2m from the south wall of the south aisle. It was on a west - east orientation, extended supine with both arms originally by its side. This individual has been buried in a coffin as evidenced by the nine iron nails which were found in a row by its feet. This individual was very well preserved with the smaller skeletal elements such as hand phalanges surviving. Metrical data of the ulna, tibia and fibula has aged this individual as an infant (more precisely between 2.5 and 3 years).

Skeleton 4 (Plate 14)

- 5.2.9 This infant was located c. 2.5m from the east wall of the south aisle and c. 2.5m from the south wall of the south aisle. It was on a west - east orientation, extended supine with head turned north and both arms by its side. This individual was buried in a coffin as evidenced by two iron nails found with the body. The grave appears to have been truncated to the south (by SK2) and to the east by modern disturbances. Despite this, this individual was very well preserved with smaller skeletal elements such as teeth and hand phalanges surviving. Metrical data of the humerus, in addition to dental eruption data, has aged this individual as an infant (more precisely between 1 - 1.5 years).

Skeleton 5

- 5.2.10 This number has been voided.

Skeleton 6 (Coffin Nails, Plate 15)

- 5.2.11 Two tibias, one fibula and an associated partial femur were allocated a skeleton number due to their partial articulation. They were found on a south - north alignment with a number potential coffin fittings, c. 5m from the east wall of the south aisle and c. 2.75m from the south wall of the south aisle. It appears that this grave may have been disturbed while the body was still partially fleshed, or indeed while the coffin still survived, with the most likely original alignment being west - east. This theory is supported by the coffin

fittings which were alongside this individual's legs (Plate 15). Observations of epiphyseal fusion and general size have aged this individual as adult, but due to the lack of any degenerative changes on the bone and the small quantity of bone recovered, a narrower age category cannot be assigned. Evidence of osteomyelitis was noted on the right tibia and fibula. Osteomyelitis is an inflammation caused by pus producing bacteria which can occur following a fracture which may have been the case with this individual. This infection and the resulting swelling has affected both the distal tibia and fibula causing them to fuse.

Skeleton 7 (Plates 16-18)

5.2.12 This infant was located c. 0.5m from the east wall of the south aisle and c. 2.75m from the south wall of the south aisle. It was on a west - east orientation, assumed extended supine. This individual was buried in a coffin as evidenced by the ten nails (with preserved wood attached) associated with it in addition to a very clear coffin edge made clearer by the grey coffin fill. The grave has been truncated by Skeleton 2 which was just above it as evidenced by a truncated left radius. As a result only the partial left radius, left hand, pelvis and legs remain. This individual was very well preserved with the smaller skeletal elements of the hand surviving. Metrical data of the femur and fibula has aged this individual as an infant (more precisely between 1 - 1.5 years).

5.2.13 It has been suggested that the grey coffin fill is lime or a variant of lime. Previously believed to destroy bone, it is now known that lime has been used to prevent the spread of disease but also to prevent the putrefaction which creates the odour. As the bones were perfectly skeletonised, this may not be a solid theory and further opinions may need to be sought.

Skeleton 8 (Plate 19)

5.2.14 This infant was located c. 1m from the east wall of the south aisle and c. 2m from the south wall of the south aisle. It was on a west - east orientation, assumed extended supine. The grave has been truncated by Skeleton 9 and as a result only a very fragmentary skull, left clavicle and left ribs remain. Metrical data of the clavicle has aged this individual as an infant

(more precisely between 36 prenatal weeks and birth).

Skeleton 9 (Plate 20)

5.2.15 This young adult female was located c. 0.5m from the east wall of the south aisle and c. 1.75m from the south wall of the south aisle. It was on a west - east orientation, extended supine with both arms originally by its side. The individual may have been buried in a coffin as two nails were retrieved from the fill. This individual was very well preserved although truncated. This truncation has resulted in the loss of this individual's right arm, right pelvis and right leg. Her right ribs have been disturbed and her lumbar vertebrae and distal tibia damaged. A separate truncation, which also affected Skeleton 3 and Skeleton 12, has resulted in the loss of her skull and has damaged her left scapula and left proximal humerus.

5.2.16 Observations of epiphyseal fusion and general size have aged this individual as a young adult. The greater sciatic notch scored 1 (F). A number of Schmorl's nodes were noted on thoracic and lumbar vertebrae, occurring on both superior and inferior endplates. Whilst normally an occurrence in the elderly, as part of degenerative disc disease, the occurrence in young adults can be as a result of a fall from a height, heavy lifting or trauma during physical exercise.

5.2.17 This individual's left hand appeared to be resting on a piece of infant skull, but following the lifting of this young adult, another infant (SK13) was discovered directly beneath. The skull appeared to have been disturbed, presumably by the excavators who buried Skeleton 9, but the skull was placed back with the remainder of its body before deposition of this young adult.

Skeleton 10 (Plate 21)

5.2.18 This infant was located c. 1m from the east wall of the south aisle and c. 1.6m from the south wall of the south aisle. It was on a west - east orientation, assumed extended supine. The grave is highly truncated, evidenced by the survival of only the left ribs and skull fragments. Judging by the size of the ribs and the thin nature of the skull fragments, this

individual has been aged as infant (most likely neonate, comparing measurements with that of Skeleton 11).

Skeleton 11 (Plate 22)

5.2.19 This infant was located c. 0.5m from the east wall of the south aisle and c. 2.25m from the south wall of the south aisle. It was on a west - east orientation, extended supine with head facing up and it's left arm by its side with the right lower arm across the body. The grave is undisturbed but cuts through the grave of Skeleton 12 to the west. This individual was very well preserved. Metrical data of the clavicle, scapula, humerus, pelvis and femur has aged this individual as an infant (more precisely between 36 - 40 prenatal weeks (full term)).

Skeleton 12 (Plates 22 and 23)

5.2.20 This infant was located c. 0.75m from the east wall of the south aisle and c. 2m from the south wall of the south aisle. It was on a west - east orientation, extended supine and both arm by its side. This grave suffers truncation both to the east by Skeleton 11, to the west by Skeleton 13 and to the south by Skeleton 9. This individual was very well preserved. Metrical data of the femur has aged this individual as an infant (more precisely between 1 - 1.5 years).

Skeleton 13 (Plate 22)

5.2.21 This infant was located c. 1m from the east wall of the south aisle and c. 2m from the south wall of the south aisle. It was on a west - east orientation, extended supine. Having been disturbed by the excavators of the grave for Skeleton 9, the skull of this infant was replaced on top of it's body. The borehole to the north may have also truncated this grave to some extent. The grave cuts through the grave of Skeleton 12 to the east. This individual was very well preserved. Metrical data of the tibia has aged this individual as an infant (more precisely between 0 - 3 months).

Disturbed/disarticulated material

5.2.22 A substantial quantity of human bone was recovered from the general fill around the graves. The material was briefly examined and consisted of a

selection of elements from all ages and both sexes. This is to be expected in a busy area of cemetery which may have been in use for centuries. No major pathologies were noted on the bone, aside from age related pathologies which were identified on partial femurs and on a number of thoracic and lumbar vertebrae. In the case of material which was found in the vicinity of an articulated burial, it was examined in more detail so as to return it to its rightful owner so to speak, for example the fragments of skull associated with Skeleton 2.

Skeleton	Age	Details	Sex
Skeleton 1	Infant	40 prenatal weeks - 1.5 months	
Skeleton 2	Adult	Adult	Female
Skeleton 3	Infant	2.5 - 3 years	
Skeleton 4	Infant	1 - 1.5 years	
Skeleton 5	n/a	Number void	-
Skeleton 6	Adult	Adult	
Skeleton 7	Infant	1 - 1.5 years	
Skeleton 8	Infant	36 - 40 prenatal weeks	
Skeleton 9	Adult	17 - 25 years	Female
Skeleton 10	Infant	Neonate	
Skeleton 11	Infant	36 - 40 prenatal weeks	
Skeleton 12	Infant	1 - 1.5 years	
Skeleton 13	Infant	0 - 3 months	

Table 1: Summary of inhumations

6 DISCUSSIONS AND CONCLUSIONS

- 6.1.1 The removal of the pews revealed areas beneath the pew bases which were most likely excavated to allow for circulation of air and reducing the risk of damp which would damage the softwood pews and bases.
- 6.1.2 The excavation of these areas for the pews most likely dates to the 19th century. Plans of the church dating to the early part of the century shows that there were no pews in the western half of the building – they were only to be found in the centre, none in either aisle, and in the chancel. A series of alterations were documented in the 1860s including insertion of more pews throughout the church on the north wall, south wall and east wall of the south aisle.
- 6.1.3 Twelve individual burials were identified and recorded in the eastern end of the south aisle during the monitoring of the ground reduction in this area. It is assumed that these infants were all buried outside of the church. As the south aisle was not added until 15th century then these burials must pre-date this extension of the building.
- 6.1.4 The majority of individuals examined were infants. This is unsurprising on two levels; the high level of infant mortality (children under one dying up to four or five times more frequently than those above the age of five) which existed at the time and the placement of infants up against the church walls. This placement of burials by the original church wall was standard practice through Saxon times and may well have continued into this period. The intercutting of graves within this area highlights the fact that graves may have lacked grave markers or simply that the demand for space was so high. The acknowledgement of a previous burial and the re-deposition of the skull (Skeleton 13) shows that respect was shown to the previous graves despite being truncated.
- 6.1.5 The clustering of burials of young individuals in close proximity to structures, also known as 'eaves-drip' burials, has been recorded across the country through the Saxon period and into medieval times. While it does not occur exclusively, it is a definite funerary rite and it is apparent that is what has

occurred here. The presence of adult females in the area potentially represent cases of death during or soon after birth and thus their association with the infants. In addition to this, women who died during the early stages of their pregnancy or who experienced miscarriages with fatal complications may also have been included in this group, with the idea that those buried in the same area as the infants must have had some form of shared identity with the babies (Craig-Atkins, 2014).

- 6.1.6 There have been a number of theories as to why eaves-dip burials occur with the suggestion that water running from the eaves of the church might provide posthumous baptism emerging from folk myths. Working on the theory that these infants died before being baptised, it can be suggested that they were not allowed to be buried in the current cemetery and were therefore buried in an old disused cemetery in the only space available, the space by the church wall.
- 6.1.7 All the human remains excavated and examined were bagged up by skeleton and boxed to be returned to the church, after the work has been completed, to be reburied.
- 6.1.8 The alterations in the design of the laying of the floor ensured that no further remains would be disturbed. It is considered that based on the number exposed in this small area/strip that a significant number of further remains lay undisturbed within the location of the south aisle.
- 6.1.9 Should the church floor require further reducing, there is a high chance that more human remains will be uncovered, specifically along the south aisle.

7 ACKNOWLEDGEMENTS

Pre-Construct Archaeology Ltd would like to thank Melanie Hey of Freeland Rees Roberts for commissioning the work on behalf of the Chrishall Parochial Church Council. Further thanks are extended to Phil Attelsey, Bob Barnard and Darren Wilks from Lodge and Son who assisted on site and for accommodating PCA during the visits. Thanks also to Aileen Tierney and Mary-Anne Slater for their hard work on site. The project was managed and fieldwork directed for PCA by Taleyna Fletcher. Figures accompanying this report were prepared by Mark Roughley of PCA's CAD Department.

8 BIBLIOGRAPHY

Printed Sources

Anon. 2001 (revised 2003) Holy Trinity Church Chrishall

Bass, W. M 1995 Human Osteology: a laboratory and field manual Missouri Archaeological Society, Inc.

Buikstra, J.E & Ubelaker, D.H 1994. Standards for data collection from human skeletal remains Arkansas Archaeological Survey Research Series no. 44

Craig-Atkins, E 2014. Eavesdropping on short lives: Eaves-drip burial and the differential treatment of children one year of age and under in early Christian cemeteries. In Hadley, D.M., K.A. (eds). Medieval Childhood: archaeological approaches. SSCIP Monograph 3. Oxbow.

Havis, R. 2015 Brief for Archaeological Monitoring at Holy Trinity Church, Chrishall

Slater, M-A. 2015 Written Scheme of Investigation for a Programme of Archaeological Monitoring at Holy Trinity Church, Chrishall, Essex. Pre-Construct Archaeology

Ubelaker, D.H 1989 Human skeletal remains: excavation, analysis, interpretation Taraxacum, Washington.

Schaefer M, Black S and Scheuer L 2009 Juvenile Osteology: a laboratory and field manual Elsevier.

Wann R.W and Hunt D.R 2005. Photographic Regional Atlas of Bone Disease Charles C. Thomas, Illinois.

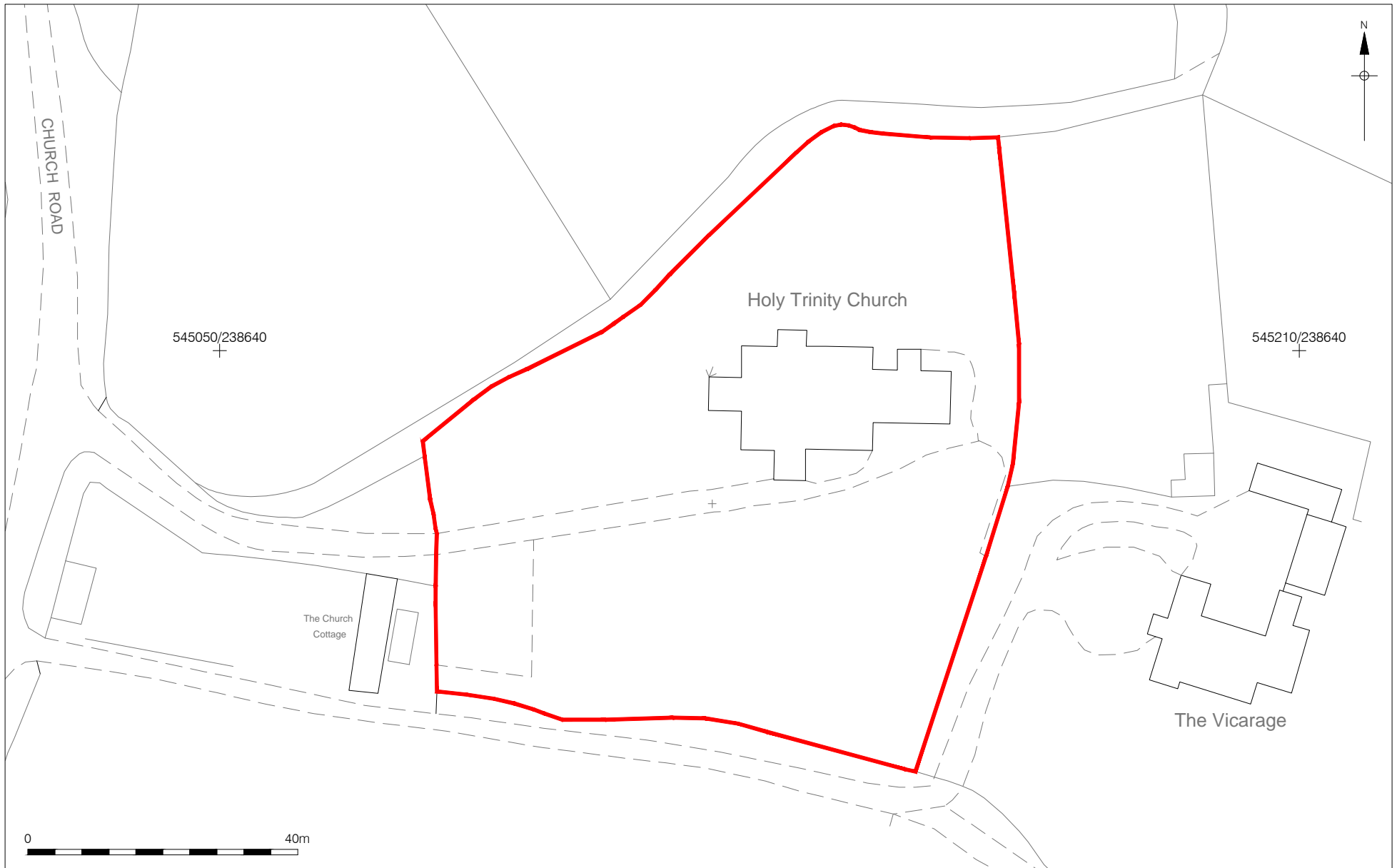
Online Sources

British Geological Survey Geology of Britain Viewer
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> Accessed 05/01/2016



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Figure 1
 Site Location
 1:2,000,000; 1:20,000 at A4

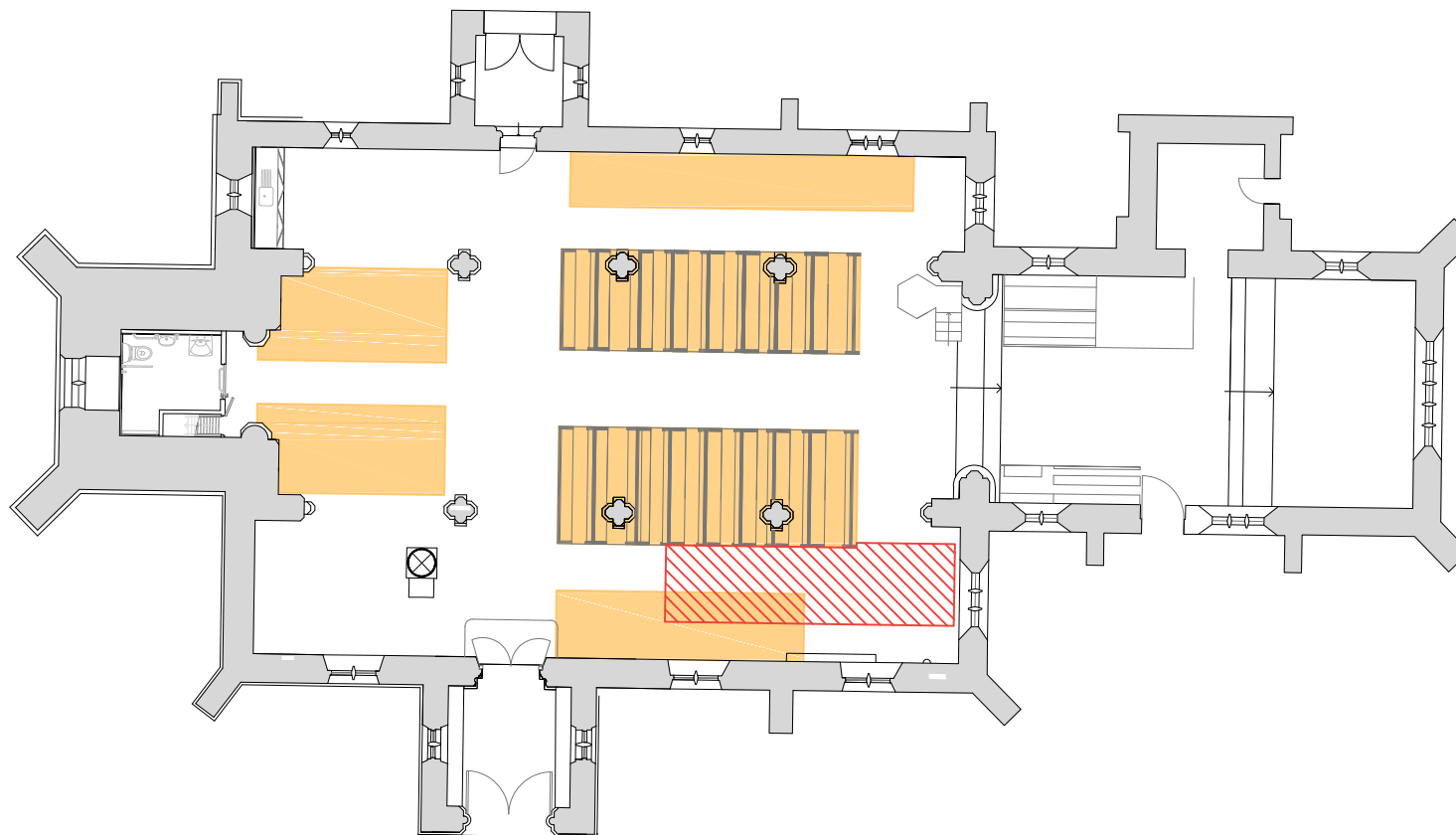
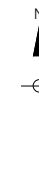


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Figure 2
Detailed Site Location
1:800 at A4





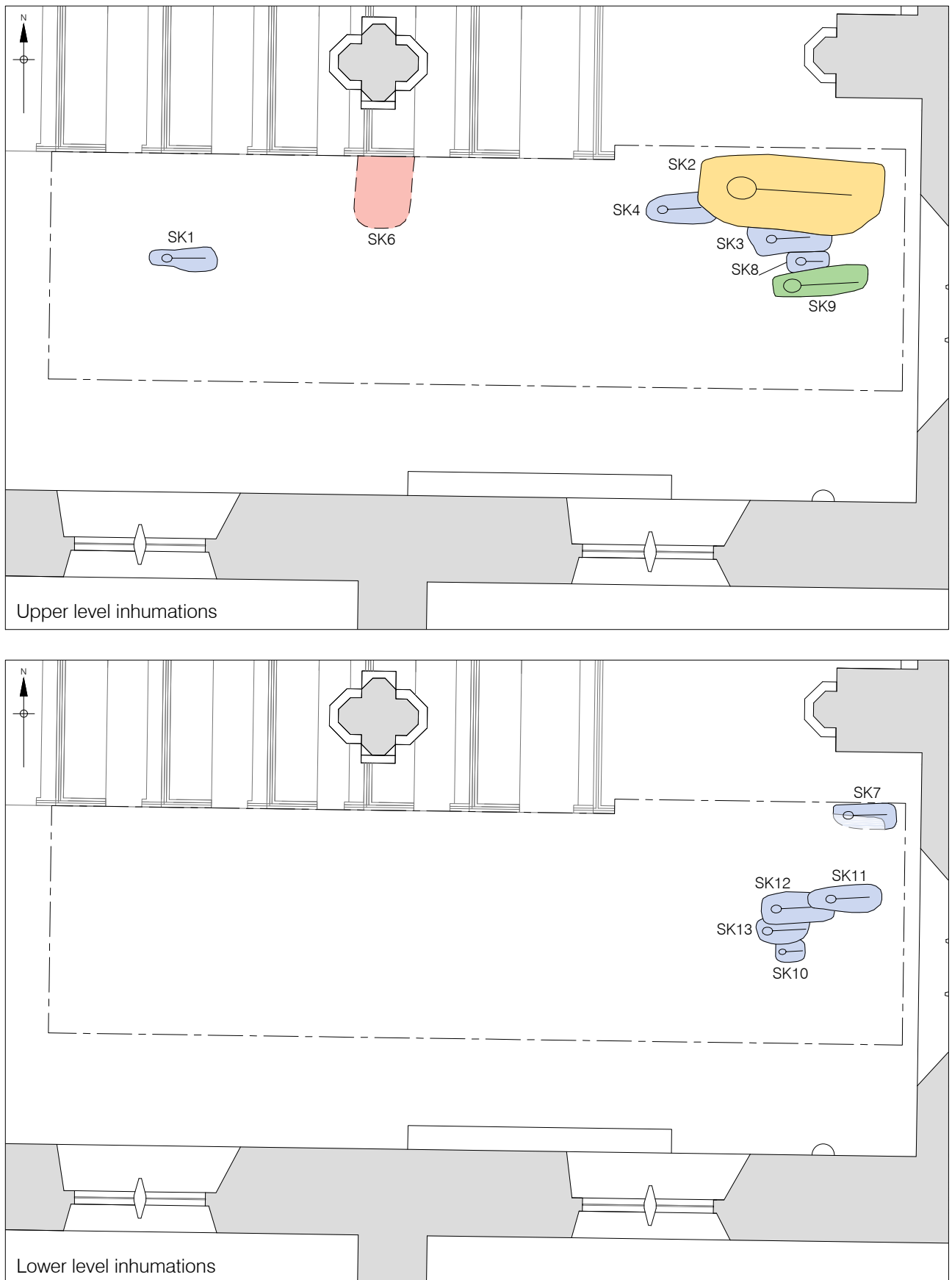
-  Pew removal
-  Floor Reduction

Figure 3
Plan of Holy Trinity Church indicating areas of archaeological monitoring
1:200 at A4



0 10m

Adult Infant
Young Adult Undetermined

0 10m

Figure 4
Plans showing the location of burials in the South Aisle
1:50 at A4

APPENDIX 1: PLATES



Plate 1: Main Aisle prior to removal of floor or pews



Plate 2: Plain pews located in North Aisle



Plate 3: Decorative pews in Main Aisle



Plates 4a and 4b: Carved pew ends in Main Aisle



Plate 5: Main and South Aisle during pew removal



Plate 6: Area recorded following pew removal in the western end of the nave (north side of tower entrance)



Plate 7: Area recorded following pew removal in the western end of the nave (south side of tower entrance)



Plate 8: Area recorded following pew removal on north side of the nave



Plate 9: Working Shots during excavation of Sk1 and Sk 3 in south aisle



Plate 10: Sk 1



Plate 11: Sk1



Plate 12: SK2 and 3



Plate 13: Sk 3



Plate 14: Sk 4



Plate 15: Coffin Nails, Sk 6



Plate 16: Pre-excitation shot of Sk 7 showing degraded lime (?)



Plate 17: Sk 7



Plate 18: Coffin Nails from Sk7



Plate 19: Sk 8



Plate 20: Sk 9



Plate 21: Sk 10



Plate 22: Sk 11, Sk 12 and Sk13



Plate 23: Sk 12

APPENDIX 2: ESSEX HER SUMMARY SHEET

Site name/Address: Holy Trinity Church, Chrishall, Essex	
Parish: Chrishall	District: Uttlesford
NGR: TL 4515 3863	Site Code: CECL15
Type of Work: Archaeological Monitoring	Site Director/Group: Taleyna Fletcher / Pre-Construct Archaeology
Date of Work: October/November 2015	Size of Area Investigated:
Location of Finds/Curating Museum:	Funding source: Client
Further Seasons Anticipated?: No	Related HER Nos
Final Report:	
Periods Represented: Medieval to Post-Medieval	
SUMMARY OF FIELDWORK RESULTS:	
<p>Archaeological monitoring carried out by Pre-Construct Archaeology at Holy Trinity Church, Chrishall, Essex between 27th October and 16th November 2015. The aim of the work was to monitor and record any archaeological remains which would be damaged or destroyed by the removal of pews and reduction of the nave floor and side aisles to facilitate a new floor.</p> <p>Monitoring of the removal of the pews did not reveal any archaeological features, evidence of earlier structures or any artefacts. Voids recorded beneath the pews are thought to have been excavated in the 19th century when the permanent pews were added. The voids allowed for the circulation of air to prevent damage to the pews from the damp rising up from the chalk below.</p> <p>Twelve individual burials were identified and recorded in the eastern end of the south aisle during the monitoring of the ground reduction in this area. It is assumed that these infants were all originally buried outside of the church. As the south aisle was not added until 15th century then these burials must pre-date this extension of the building. The majority of individuals examined were infants. This is unsurprising on two levels; the high level of infant mortality which existed at the time and the placement of infants up against the church walls. This placement of burials by the original church wall was standard practice through Saxon times and may well have continued into this period.</p> <p>The alterations in the design of the laying of the floor ensured that no further remains would be disturbed. It is considered that based on the number of burials exposed in this small area/strip that a significant number of further remains lay undisturbed within the south aisle.</p>	
Previous Summaries/Reports:	
Author of Summary: Taleyna Fletcher	Date of Summary: 25/02/2016

APPENDIX 3: OASIS FORM

OASIS ID: preconst1-245417

Project details

Project name	Monitoring at Holy Trinity Church, Chrishall, Essex
Short description of the project	<p>Archaeological monitoring was carried out by Pre-Construct Archaeology at Holy Trinity Church, Chrishall, Essex between 27th October and 16th November 2015. The monitoring was undertaken during the removal of the pews and reduction of the nave floor and side aisles to facilitate a new under-floor heating system and new floor. Monitoring of the removal of the pews did not reveal any archaeological features, evidence of earlier structures or any artefacts. Repair of the pews undertaken in the 1990s saw the replacement of the softwood beams which had supported the pew bases. Voids recorded beneath the pews are thought to have been excavated in the 19th century when permanent pews were added. The voids allowed for the circulation of air to prevent damage to the pews from the damp within the chalk floor below. Twelve individual burials were identified and recorded in the eastern end of the south aisle during the monitoring of the ground reduction in this area. It is assumed that these infants were all originally buried outside of the church. As the south aisle was not added until 15th century then these burials must pre-date this extension of the building. The majority of individuals examined were infants. This is unsurprising on two levels; the high level of infant mortality which existed at the time and the placement of infants up against the church walls. This placement of burials by the original church wall was standard practice through Saxon times and may well have continued into this period. The alterations in the design of the laying of the floor ensured that no further remains would be disturbed. It is considered that based on the number exposed in this small area/strip that a significant number of further remains lay undisturbed within the location of the south aisle.</p>
Project dates	Start: 27-10-2015 End: 16-11-2015
Previous/future work	No / No
Any associated project reference codes	CIHT15 - HER event no.
Type of project	Recording project

Site status	Listed Building
Current Land use	Other 2 - In use as a building
Monument type	BURIALS Medieval
Monument type	PEWS Post Medieval
Investigation type	"Watching Brief"
Prompt	Faculty jurisdiction

Project location

Country	England
Site location	ESSEX UTTLESFORD CHRISHALL Church of the Holy Trinity
Postcode	SG8 8QU
Study area	0.01 Hectares
Site coordinates	TL 4515 3863 52.026619050249 0.115908061327 52 01 35 N 000 06 57 E Point
Height OD / Depth	Min: 0m Max: 0m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Essex County Council
Project design originator	Pre-Construct Archaeology
Project director/manager	Taleyna Fletcher
Project supervisor	Taleyna Fletcher
Type of sponsor/funding body	Parochial Church Council

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Saffron Walden
Digital Media available	"Images raster / digital photography", "Text"
Paper Media available	"Context sheet", "Drawing", "Notebook - Excavation", "Research", "General Notes", "Plan", "Report", "Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Monitoring at The Holy Trinity Church, Chrishall, Essex
Author(s)/Editor(s)	Fletcher, T.
Other bibliographic details	Report No R12326
Date	2016

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