



KDK ARCHAEOLOGY LTD

## Archaeological Evaluation Report

20 Hitchin Street

Biggleswade

Bedfordshire



## Quality Check

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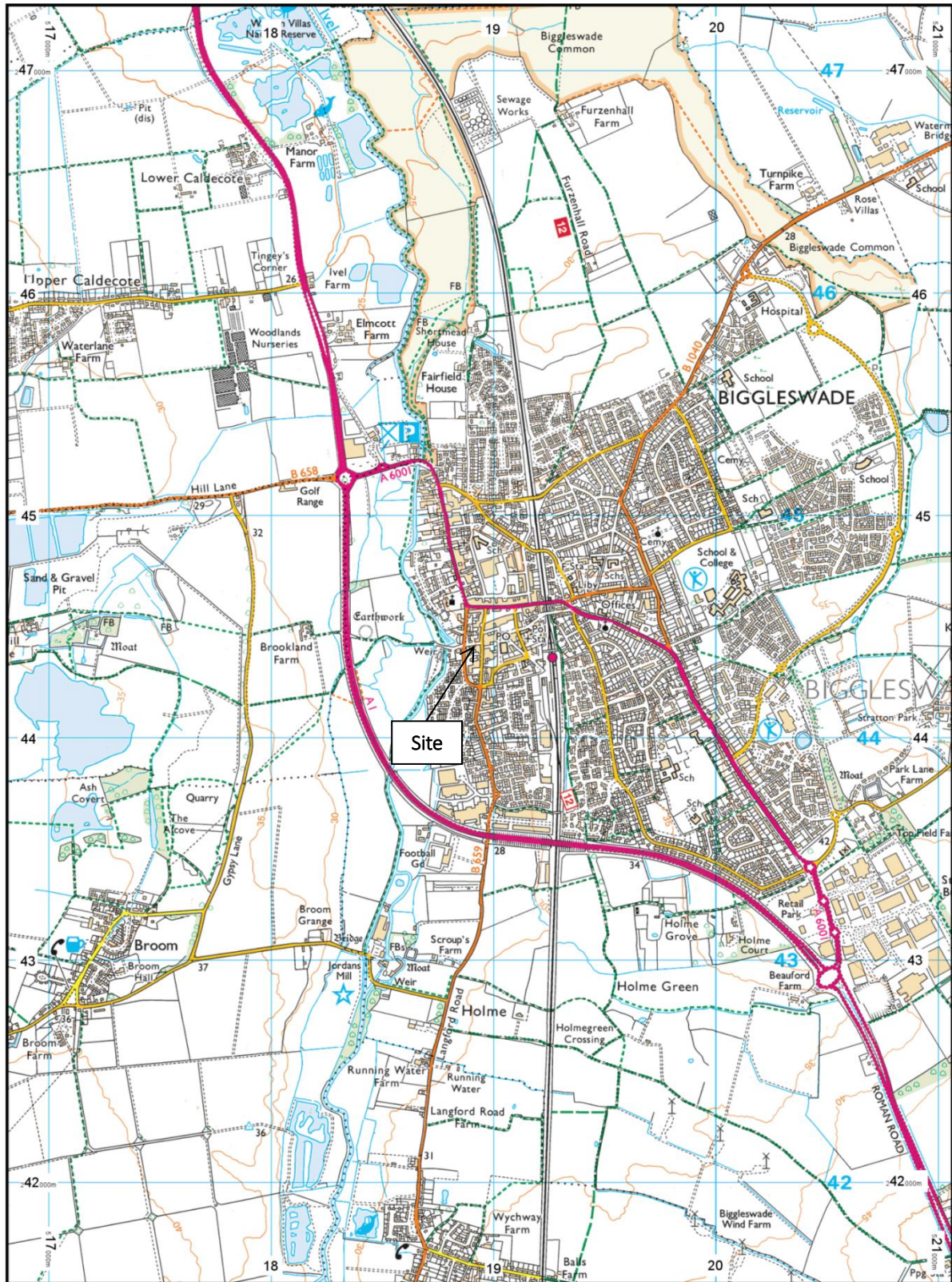


Figure 1: General location (scale 1:25,000)



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## Summary

In October 2016 KDK Archaeology Ltd undertook an archaeological evaluation at 20 Hitchin Street, Biggleswade, Bedfordshire, prior to the construction of two apartments. The site is situated close to the heart of the medieval settlement, and within the flood plain of the river Ivel. The excavation uncovered two early 15<sup>th</sup> century features which may have been maltings kilns or possibly bread ovens, a 19<sup>th</sup> century cess pit and a modern rubbish pit.

## 1 Introduction

1.1 In October 2016 KDK Archaeology Ltd undertook an archaeological evaluation at 20 Hitchin Street, Biggleswade, Bedfordshire. The project was commissioned by Barry Waldock of LH Solutions Ltd, and was carried out according to a Written Scheme of Investigation (WSI) prepared by KDK (Summerfield-Hill, 2016), and approved by Central Bedfordshire Council Archaeological Team (CBAT), Archaeological Advisor (AA) to the Local Planning Authority (LPA), Central Bedfordshire Council. The relevant planning application reference is CB/15/00032/FULL.

### 1.2 *Planning Background*

This evaluation has been required under the terms of National Planning Policy Framework (NPPF) as condition number 2 of planning permission for the development of the site.

### 1.3 *The Site*

#### *Location & Description*

The development site lies in the town and civil parish of Biggleswade in the administrative district of Central Bedfordshire. It is centred on NGR TL 18918 44410 (Fig. 1).

#### *Description*

The site is a rectangular plot of land to the rear of 20 Hitchin Street to the east, a public house is to the west, whilst residential properties lie to the south and Mill Lane is to the north providing access onto the site (Fig. 2).

#### *Geology & Topography*

The bedrock geology for the area is sandstone of the Woburn Sands Formation, whilst the superficial deposits are sand and gravel. The site is on a level plane at an elevation of approximately 29.8m AOD (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

#### *Development*

The development entails the erection of two one bedroom apartments (Fig. 3).





Figure 2: Site location (scale 1:1250)

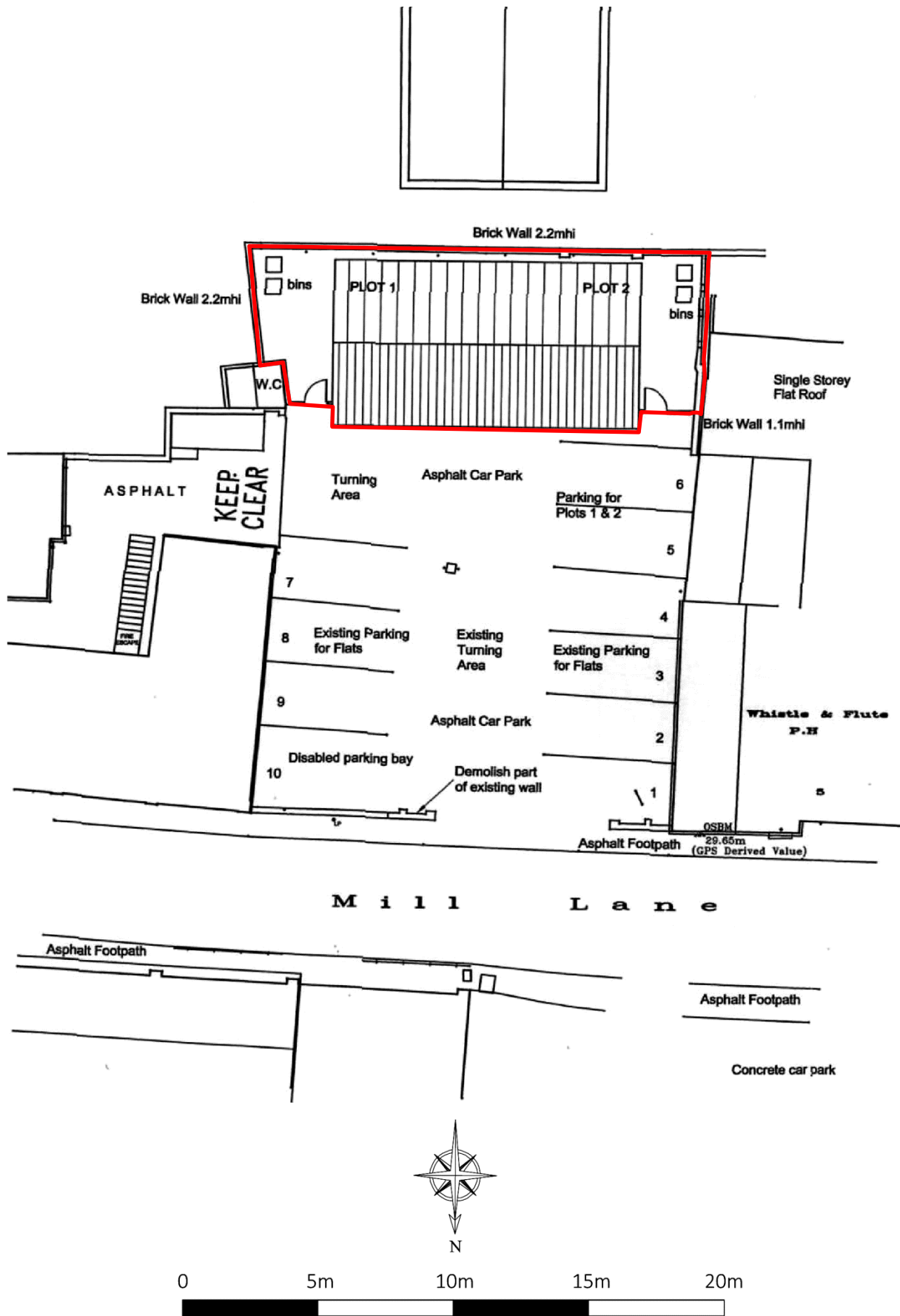


Figure 3: Development plan (scale 1:200)



## 2 Aims & Methods

2.1 The aims of this project as defined in the approved WSI (Summerfield-Hill, 2016), were:

- To establish the date, nature and extent of activity or occupation within the development area
- To establish the relationship of any remains found to the surrounding contemporary landscapes
- To recover paleo-environmental remains to determine local environmental conditions

Additional research objectives included the origins and development of small towns and early town planning during the medieval period as described by Ayers (2000: 27-32), Oake (2007:14) and Medlycott and Brown (2008: 96-97).

### 2.2 *Methods*

The requirements of the Brief (Firth, 2016) were to be as follows:

- Stage One: An archaeological field evaluation of the site consisting of a single 10 x 2m (20m<sup>2</sup>) trench within the footprint of the development with a contingency for a further 10m<sup>2</sup> should further investigation of features be required (Fig. 4).
- Stage Two: An appraisal of the results of the evaluation and their significance with regard to the development. This in turn may have led to the definition of a programme of investigation and recording of archaeological remains which would have been destroyed by the development. Alternatively, it may have led to the development of a strategy for the preservation *in situ* of any archaeological remains within the development area. CBCAT would in turn prepare a Brief for the next phase of investigation that would also cover a programme of post-excavation, analysis and publication
- Stage Three: The implementation of an agreed programme of archaeological investigation and recording or preservation *in situ* based on the Brief

However, once the trench had been pulled, cleaned, and the features excavated a site meeting was held between KDK, CBAT and the client. It was clear that due to the physical restrictions of the site and the depth of the overburden, it was not practicable to strip the site as the recorded archaeology would warrant on a less confined plot. It was therefore agreed that the extent of the additional work would be limited to an extension of the western end of the trench and the carbon dating of the significant features present.

### 2.3 *Standards*

The work conformed to the following requirements:

- The Design Brief
- The relevant sections of the Chartered Institute for Archaeologists' *Standard & Guidance Notes* (CIfA 2014)
- The Chartered Institute for Archaeologists' *Code of Conduct* (CIfA 2014)
- Current English Heritage guidelines (HE 2015, EH 2008)
- The Association of Local Government Archaeological Officers East of England Region *Standards for Field Archaeology in the East of England* (ALGAO 2003)





### 3 Archaeological & Historical Background

- 3.1 Biggleswade is located in the Ivel Valley, with the river forming the western boundary of the town. The development site is within the core of the medieval town (HER 17124), and is situated c.168m southwest of the trapezoidal market place and High Street and c.200 m southeast of St Andrews parish church.

The original place-name for Biggleswade is *Pichelsuuade* in 1086, and *Bicheleswada* in 1132 meaning 'Ford of a man called 'Bichel', in Old English meaning personal name + *wæd* (Mills 1991: 35).

This section has been compiled with information from Central Bedfordshire Historic Environment Record Office (HER search no. 201617/118), Extensive Urban Survey for Bedfordshire (Albion Archaeology 2003), the brief, reliable internet sources and KDK's library.

- 3.2 ***Prehistoric - Iron Age*** (before 600BC- AD43)

The earliest evidence for human activity in Biggleswade derives from the recovery of a Palaeolithic flint hand axe during gravel extraction (HER 590). Cropmarks showing ring ditches underlying the bailey ditch of a medieval ringwork and bailey castle (HER 468; see below) are thought to be part of a Neolithic or early Bronze Age enclosure, c.800 WNW of the development site. To the north of the bailey, is a square cropmark possibly Iron Age or Roman in date.

Excavations carried out at the former Black Bear Inn, 10 Hitchin Street (see below), c.55m NNE of the development site recovered residual prehistoric artefacts comprising a flint flake and a small sherd of late 'Belgic' Iron Age pottery from later features near to the street frontage (HER Event ID EBD957). Excavations carried out at 24-39 Shortmead Street also recovered two struck flints along with post-medieval and modern features (HER Event ID EBD415).

- 3.3 ***Roman*** (AD43 - c.450)

A Roman presence is known in Biggleswade as the Roman road from Baldock to Sandy, approaches the town from the south-east, now London Road (A6001) (Albion Archaeology 2003:11). The nearest Romano-British small town, however, is Sandy located to the north-west.

Chance finds include Roman urns, found in the vicinity of Station Road, c.350m NE of the development (HER 177), and a Roman coin dating from the 3<sup>rd</sup> century, which was found at Franklin Road/Teal Road c.600 SW of the development (HER 14650).

- 3.4 ***Saxon- Medieval*** (c.450 - 1500)

Biggleswade is recorded in the Domesday Survey of 1086 AD and was clearly established by the late Saxon period. At the time of the survey Biggleswade was held Ralph de Lisle, and was valued at £17 with seven villeins with seven ploughs, ten bordars, three serfs and two mills (Page 1908, Morris 1977). It has been suggested by Dawson 1994 that the two mills were under one roof. The medieval mill which may have had an associated bridge (although no traces of a medieval bridge/river crossing survive) is thought to have occupied the present location of the later Ivel Mill/Franklin's Mill (HER 1690), c.188m west of the development.

In 1132 Henry I gave the Manor of Biggleswade to the Bishops of Lincoln and in the early 13<sup>th</sup> century weekly markets and an annual fair were granted by the Crown, thus developing its urban status and economic importance. A trapezoidal market place developed and a number of streets, such as the High Street, Church Street, Shortmead Street and Mill Lane became formalised routes. Burgage plots were laid out fronting onto the marketplace with the earliest reference to burgage tenure dating to 1247 (Albion Archaeology 2003). By the 14<sup>th</sup> century Biggleswade was given town status.



The parish church of St Andrew's (HER 1018, NHLE 1321424, Grade II\*) has origins from the 130's and is now the only remaining medieval building within Biggleswade.

Two further medieval settlements exist to the south of Biggleswade, Stratton (HER 518) and Holme (HER 465). From the 10<sup>th</sup>-14<sup>th</sup> century Stratton was believed to have been the largest of the three. However, with Biggleswade's advancing economic growth Biggleswade outgrew Stratton, which in turn led to settlement desertion at Stratton.

Cropmarks indicating the remains of a medieval ringwork and bailey castle (HER 468; SAM 1010115) are located c.800m WNW of the site. Excavations carried out on the site have produced 12<sup>th</sup> century pottery and evidence for timber and daub buildings. The castle is believed to be an Anarchy castle dating from the reign of Stephen.

Further occupation was found during a pipeline project to the west of the town exposing a paleochannel from which a number of waterlogged pieces of wood were recovered that included 3 stakes and a hurdle. All of which came from the earliest episode of silting of the shallow river course, thought to have been open in the Roman period, but starting to silt up in the 7<sup>th</sup> century. Environmental evidence suggests that the wood is of Anglo-Saxon to Medieval date (HER 15878).

In 2010 trial trenching was undertaken at the former Black Bear Inn at 10 Hitchin Street. Documentary evidence indicates that the site had been in use as an Inn since at least 1661. The excavations did, however, identify a range of earlier deposits. A small area of cultivation soil was found to the rear of the inn suggesting that this part of the town was in agricultural use in the early medieval period prior to a planned expansion of the town in the 12<sup>th</sup> century. A large north-south ditch on a different alignment to Hitchin Street was found possibly indicating an earlier pattern of land boundaries pre-dating the 12<sup>th</sup> century town expansion, along with a number of medieval pits pointing to domestic occupation (Albion Archaeology, forthcoming).

Further medieval deposits have also been found in the Market Square, to the north-east of the development site. Here in 1995 an archaeological evaluation recorded archaeological deposits that included a line of possible medieval stake holes, along with a 18<sup>th</sup>/19<sup>th</sup> century brick wall foundation (HER 16080, BCAS 1995).

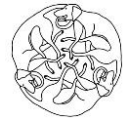
### 3.5 ***Post-Medieval - Modern*** (1500 – present)

Biggleswade is in close proximity to the Great North Road (A1) which had an impact on the town, in particular between the mid-17<sup>th</sup>-19<sup>th</sup> centuries. With the construction of the Turnpike Trusts in the early 18<sup>th</sup> century Biggleswade became an important stopping point along the route and by 1824, there were 15 coaches leaving Biggleswade daily.

The town is also known for its brewing industry, Brewer Samuel Wells established his brewery in Church Street in 1764. By 1898 the brewery was named The Biggleswade Brewery, and was run by descendants of Samuel Wells, who operated 109 pubs. In 1899 the Brewhouse was sold to George Winch and traded as Wells & Winch and by 1922 the business had expanded to 168 pubs. In 1961 the brewery became part of Green King and Sons Ltd of Bury St Edmunds but in 1966 the Biggleswade Brewery closed and eventually was converted into housing in 1997 (HER 7322).

Biggleswade's thriving economy was also displayed by, at one time 26, maltings (HER 7321, 13948-13951) supplying the local area and further afield via Ivel Navigation (HER 14539), with the river being canalised in 1757. In 1785 a large fire started at the Crown Inn, High Street, and destroyed about a third of the town. The town further expanded due to the railway coming to Biggleswade c.1850, which also promoted the transportation of locally grown produce down to London.

The excavations carried out at the former Black Bear Inn also revealed a large quarry containing 17<sup>th</sup> and 18<sup>th</sup> century pottery, which post-dates the earliest documentary evidence



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for the inn, therefore indicating that they are unlikely to be contemporary. One possibility is that the quarrying and its fills are associated with the clearance and rebuilding of the town after the Great Fire in 1785. A sequence of intercutting post-medieval pits found to the rear of the site were also excavated along with a ironstone wall, thought to have been associated with the inn (Albion Archaeology, forthcoming).

The development is situated on Mill Lane. Ivel Mill also known as Franklin's Mill and Biggleswade Mill was constructed in the 19<sup>th</sup> century (HER 1690), c.188m west of the development. It is thought to have been on the site of the original medieval mills referred to in the Domesday Survey. Tower mill was also built on Mill Lane in 1860 and demolished in 1966 (HER 928). Adjacent to the mill is Ivel House (HER 7411) a large Victorian town-house. . At the river crossing, c.222m west of the development, is Franklin's Mill Navigation Bridge (HER 15686), built in 1823 and replaced by 1973.

The development site is also adjacent to the 19<sup>th</sup> century public house The Whistle and Flute, originally known as the Elephant and Castle from 1850-1992 (HER 16446).

The six-inch OS map of 1884 depicts the development site. It is comparable to the site today, with a square possible courtyard area (now carpark) surrounded by buildings, that included a rectangular building in the footprint of the new development. The 1884 map also shows buildings all along the street frontage whereas today there is a gap between 20 Hitchin Street and The Whistle and Flute allowing access into the carpark.

Today Biggleswade has a small market town feel despite expansions in the 19<sup>th</sup> and 20<sup>th</sup> centuries. In 1989 the town centre became a Conservation Area containing over 50 listed buildings primarily focused in the Market Square, High Street, Shortmead Street, St Andrew's Street, London Road, Rose Lane and Station Road (Albion Archaeology 2003).



## 4 Results

### 4.1 Introduction

A single trench evaluation was carried out in the footprint of the development using a 5 tonne tracked excavator fitted with a 1.6m toothless ditching bucket (Fig.4).

The general site stratigraphy comprised of 0.4m deep of made ground consisting of brick, rubble and modern debris, overlying up to 0.5m deep of fine silt clay alluvium. The natural geology consisted of a yellowish brown sandy gravel with darker brownish patches of variation (Plate 1).

### 4.2 Trench 1 (Figs.4&5; Plates 1&2)

The trench, which was orientated east-west, was located on the northern edge of the building footprint. It was relocated from its central location due to the suspected presence of a car inspection pit. Initially measuring 10m long, 2m wide and up to 1.09m deep (Plate 2), it was subsequently lengthened by 2.7m and the western 4.7m was widened by a metre in an attempt to fully expose some notable features (Fig. 5).

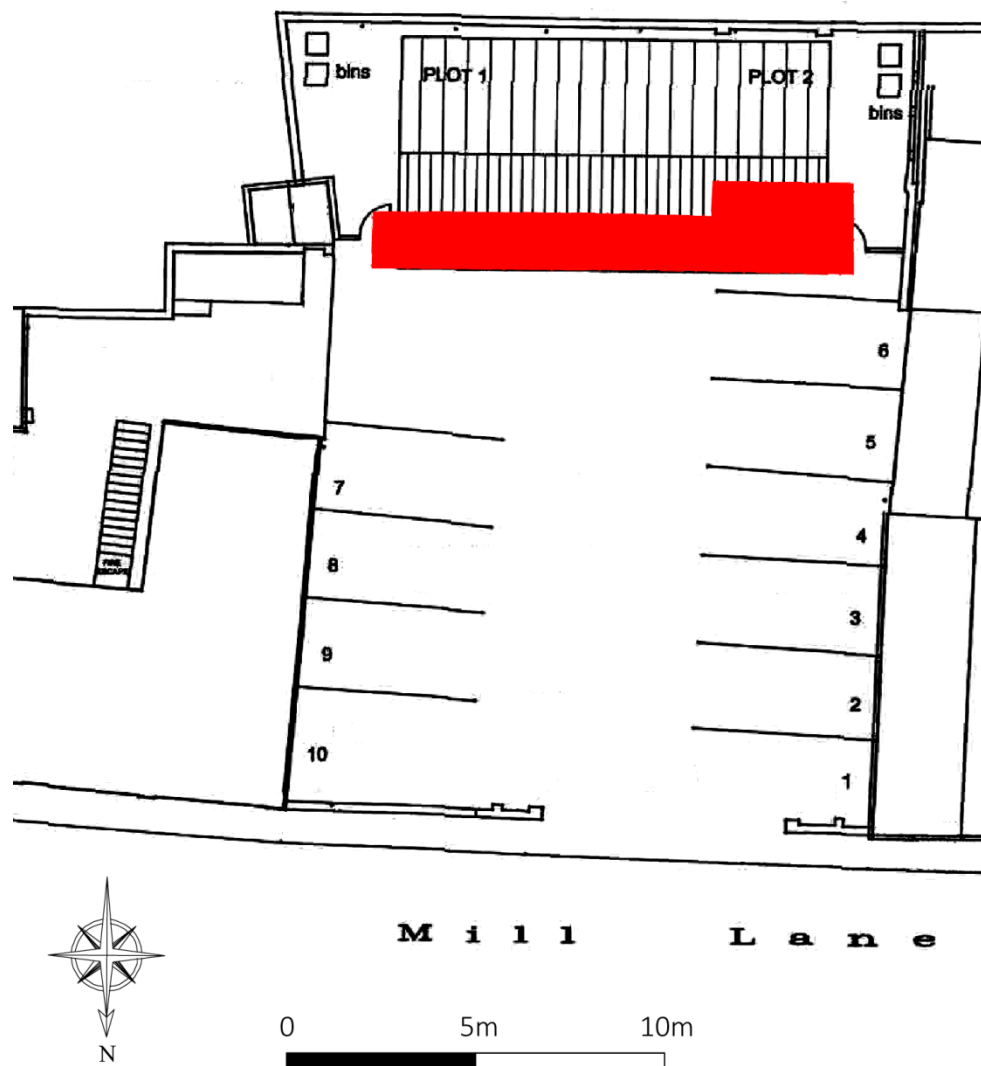


Figure 4: Trench location plan (scale 1:200)

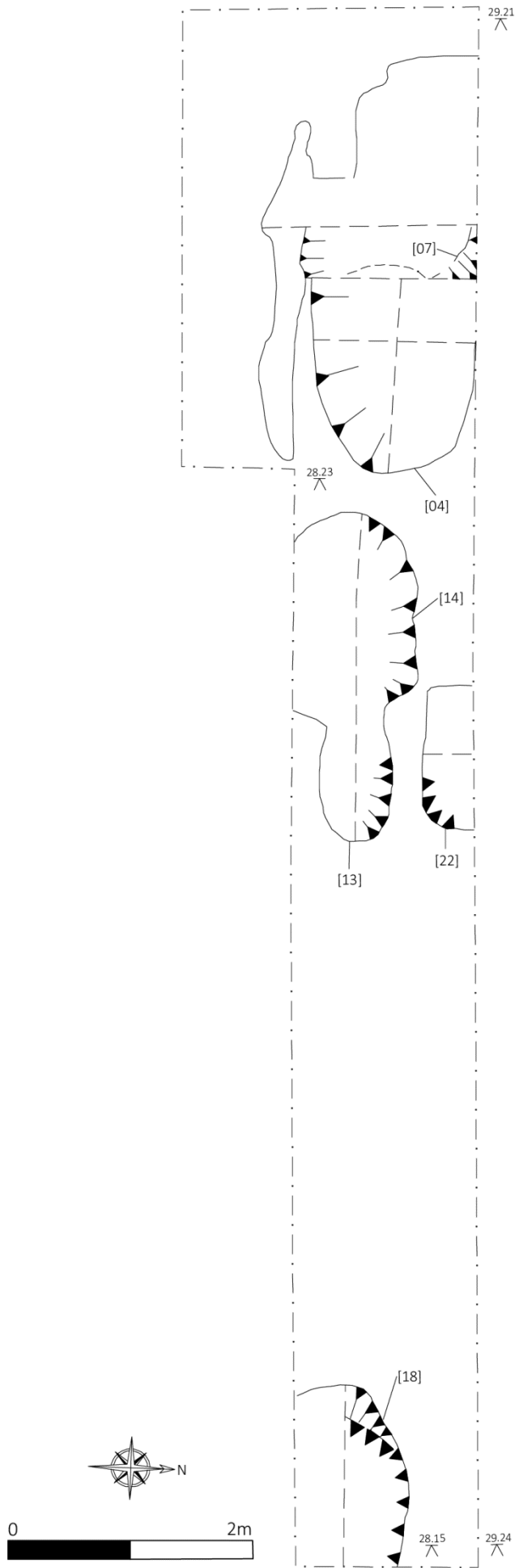


Figure 5: All features plan (1:50)



## 4.3 Contexts (Figs.6-15; Plates 3-11)

Table 1: Trench 1 Context Table

Context no.	Type	Dimensions in meters (Width x Length x Depth)	Description
01	Layer	> 3.0 x >12.7 x > 0.4	Modern overburden
02	Layer	> 3.0 x >12.7 x > 0.5	Dark grey, fine, silty clay with occasional flint <300mm. Alluvium
03	Layer	>12.7 x > 3.0	Yellowish brown clay, gravel and sand. Natural geology
04	Cut	1.28 x 1.82 x 0.17	Cut of possible firing chamber of medieval maltings kiln. Part of Group (030).
05	Fill	1.28 x >1.43 x <0.17	Very fine light grey ash. Tertiary fill of [04]. Part of Group (030).
06	Fill	>0.3 x 0.6 x 0.07	Reddish brown, hard deposit of fired clay Secondary fill of [04]. Part of Group (030).
07	Cut	1.23 x >0.4 x 0.15	Cut of possible drying chamber. Part of Group (030).
08	Fill	1.33 x >0.4 x 0.68	Dark, greyish brown, silty clay with occasional angular flints <40mm. Backfill Primary fill of [07].
09	Fill	0.77 x >0.2 x 0.24	Pale yellowish white, firm, plastic clay deposit. Secondary fill of [07]. Possibly collapsed roof or wall of drying chamber. Same as (027)
010	Fill	1.53 x >1.5 x 0.27	Greyish brown, silty clay with occasional sub-oval flint <30mm. Backfill Tertiary fill of [07]. Part of Group (030).
011	Cut		Same as [04]
012	Fill		Same as (05)
013	Cut	0.68 x >1.0 x 0.38	Cut of possible, smaller, earlier, firing chamber of maltings kiln/oven
014	Cut	>1.2 x >1.6 x 0.18	Cut of possible drying chamber
015	Fill	>1.2 x 2.76 x 0.18	Greenish grey, firm, plastic, clay with occasional flint <30mm. Backfill Secondary fill of [13] & [14].
016	Fill	>0.51 x 0.87 x 0.08	Mix of materials, grey, silty clay, fired clay, charcoal. Frequent flint <70mm. Backfill Primary fill of [014].
017	Fill	>0.5 x 1.58 x 0.07	Charcoal layer. Basal fill of probable stoking/raking pit for maltings kiln or oven. Primary fill of [013] & [014].
018	Cut	>0.93 x >1.49 x >1.0	Cut of possible post-med cess pit
019	Fill	>0.53 x >0.75 x >1.0	Yellowish brown, fine sandy gravelly clay. Probable cess. Primary(?) fill of [018] though this features was not fully excavated.
020	Fill	>0.53 x >0.77 x 0.54-0.98	Dark grey, firm, silty clay. Probably alluvium used as backfill . Secondary(?) fill of [018].
021	Fill	>0.53 x >1.48 x 0.78	Greyish brown, firm, silty clay with occasional sub-ovsl flint <40mm. Final fill. Backfill. Tertiary (?) fill of [018].
022	Cut	>0.41 x 1.27 x >0.52	Cut of modern pit.





Context no.	Type	Dimensions in meters (Width x Length x Depth)	Description
023	Fill	>0.41 x 1.27 x >0.52	Mix of materials including greyish black topsoil and natural geology. Loose and friable. Sole fill of [022]
024	Fill	>0.84 x >1.64 x 0.1	Thin charcoal layer at base of raking pit. Primary fill of [04]. Part of Group (030).
025	Fill	0.84 x 0.04 x u/k	Charcoal layer between kiln edge (026) and natural. Part of Group (030).
026	Structure	>1.1 x 2.1 x 0.5	Collapsed clay wall to kiln/oven or drying chamber on north side of feature. Part of Group (030).
027	Structure	>0.5 x 2.8 x 0.82	Collapsed clay wall to kiln or drying chamber/oven on south side of feature. Part of Group (030).
028	Fill	0.15 x >0.5 x 0.1	Charcoal deposit beneath collapsed clay wall of drying chamber/oven on south side of feature.
029	Fill	0.15 x >0.5 x 0.1	Charcoal deposit beneath collapsed clay wall of drying chamber on south side of feature. Part of Group (030).
030	Group		Cuts [04] & [07], Fills (05), (06), (010), (024), (025), (026), (027) & (028). Remains of kiln or oven.
031	Group		Cuts [013] & [014], Fills (016), (017) & (018). Remains of kiln or oven.



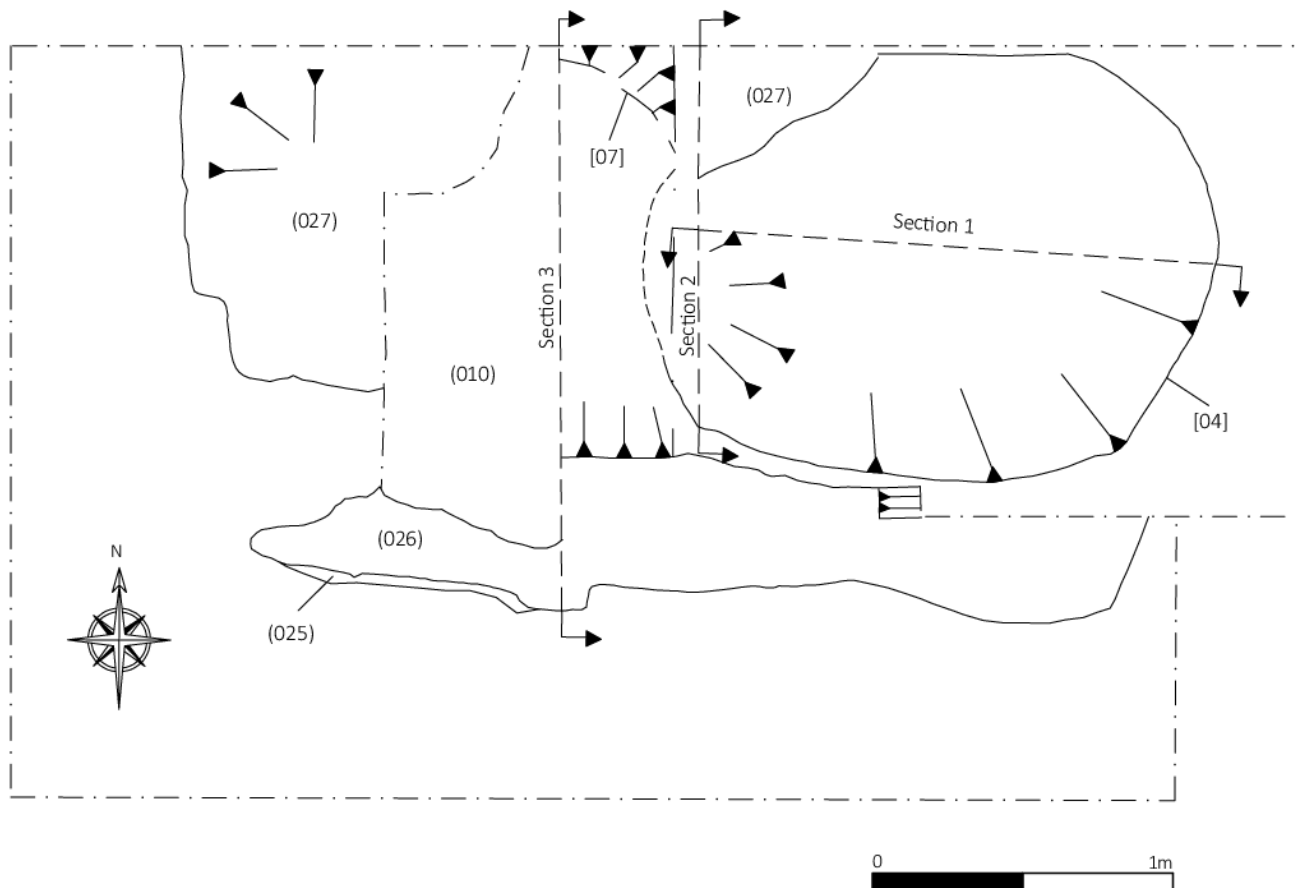
### Group 030

Group 030 consisted of Cut [04] and its associated Fills (05), (06) and (024), Cut [07] and Fills (010), (026), (027) and (029) (Figs. 5 & 6).

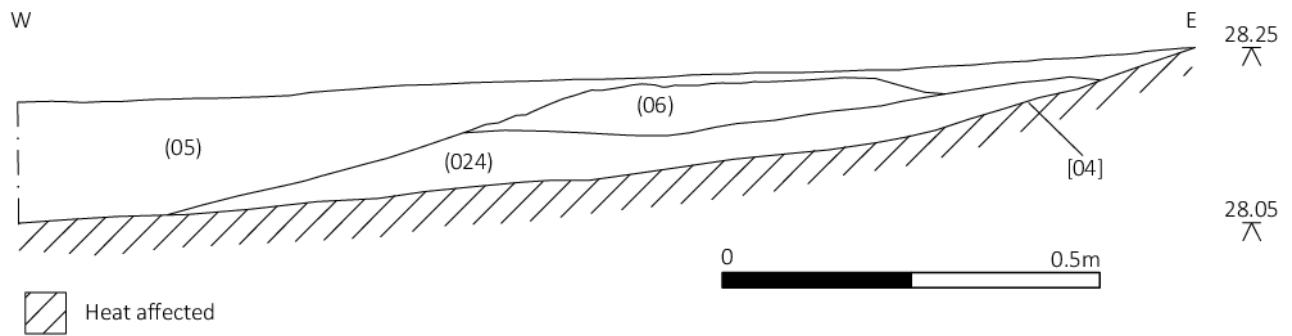
Both cuts were shallow being 0.17 and 0.15m respectively, with rounded edges and a flat base, set in heat-affected natural geology. Cut [04] was 1.9m by at least 1.4m, and contained deposits of fine ash (05), heat-affected clay (06) and charcoal (024) (Fig. 7, Plate 3). A carbon date for (024) was subsequently obtained, placing the deposit around 1401-1435.

The overall size of the Group and therefore the feature was 3.3m in length, 1.88m wide and 0.6m deep. However, none of these dimensions are likely to be the actual size of the feature as it was when in use, as it was not possible to locate the western and northern edges as they were beyond the excavated area, and the depth only relate to size of what appears to be a collapsed structure.

It is possible that these contexts represent the remains of a malting kiln or baking oven, with Pits [04] and [07] representing the bases of the firing chamber or raking pit, and clay (026) and (029) being the walls and collapsed roof respectively. Layer (010) appeared to be backfill, overlying the roof. Pottery dating from 14<sup>th</sup> century was recovered from charcoal fill (025) and clay wall (026), and from the 16<sup>th</sup> century from the upper layer of backfill (010).

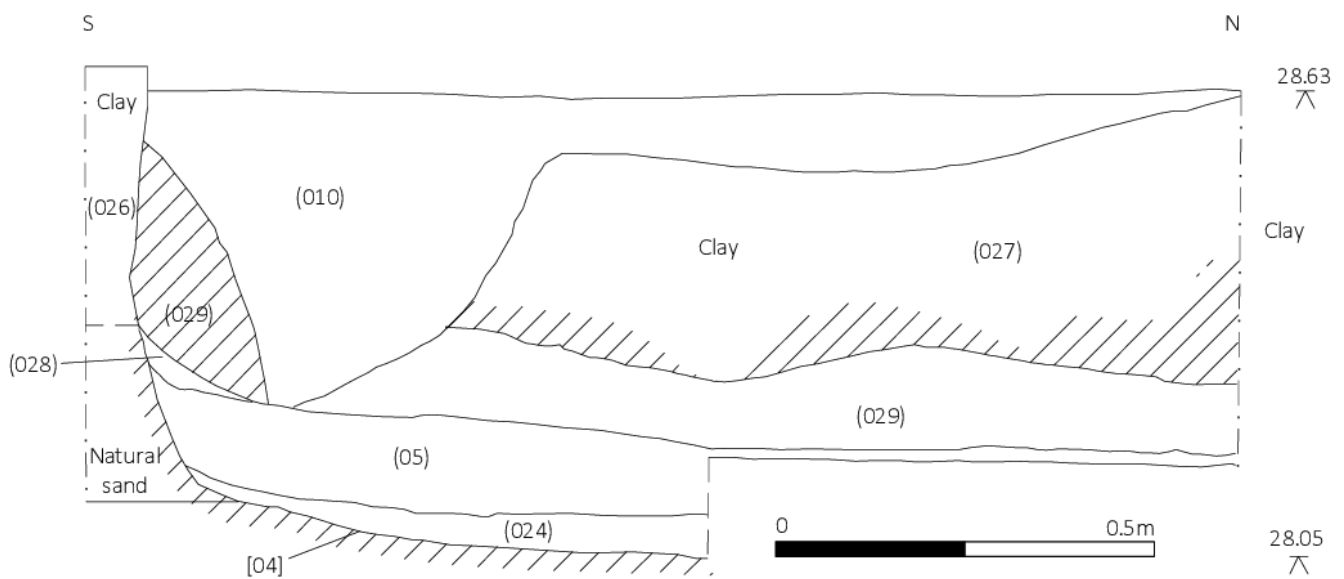


**Figure 6:** Plan of Group (030), Possible kiln or oven (scale 1:25)



**Figure 7:** South facing Section 1 of possible kiln or oven base (scale 1:10)

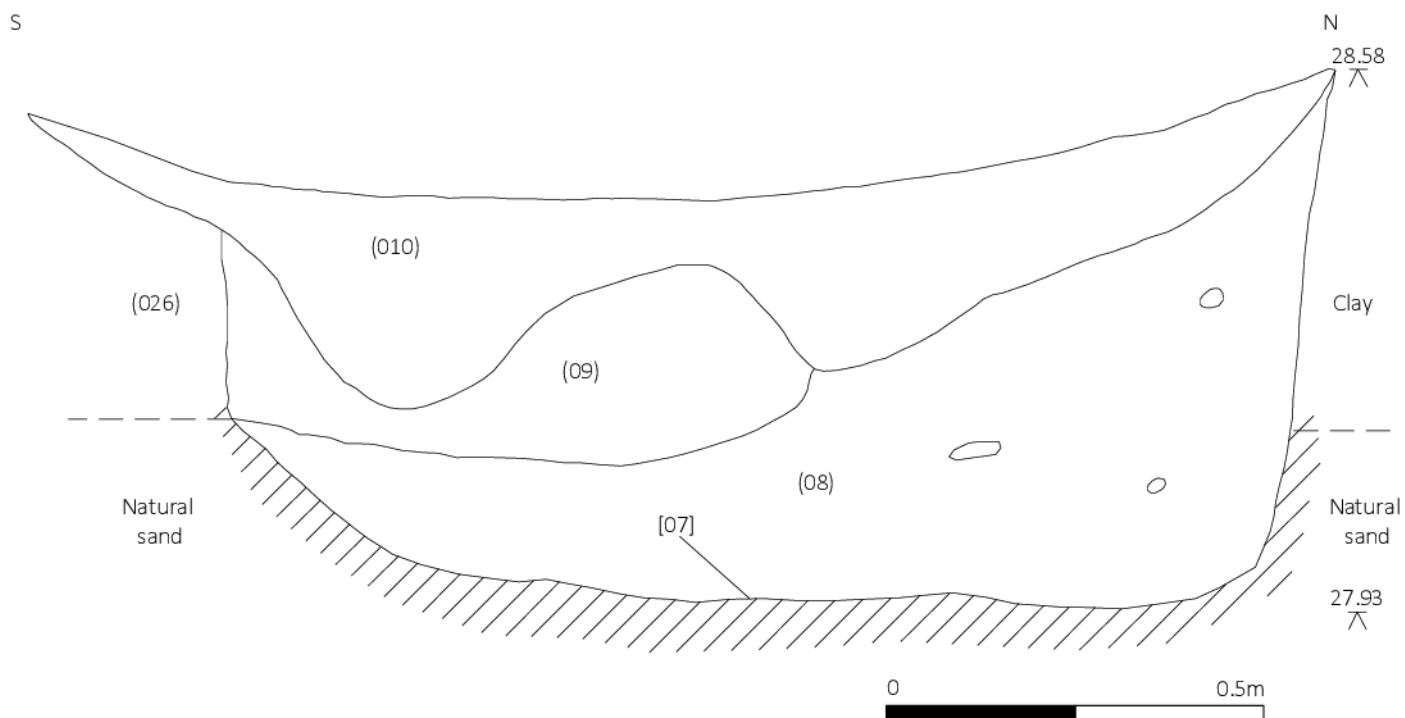
In addition to some of the fills previously noted in Pit [04], the material recorded in Section 2 immediately to the west of Pit [04] consisted of backfill (010) & (029), and clay (026) & (027), both of which appeared to form part of the super-structure of the feature, either as a wall or possibly the collapsed roof (Fig. 8, Plate 4). There was a noticeable area of heat-affected natural sand between (029) and (026) on the southern side of the feature, suggesting perhaps that (029) had slumped or been backfilled into that area (Plate 5).



**Figure 8:** East facing Section 2 of possible kiln or oven base (scale 1:10)

To the west of Pit [04] was Cut [07], revealed in a half meter wide slot excavated through backfill deposits (08), (010) and structural clay (09) (Fig. 9, Plate 5). The cut itself was 1.23m wide and up to 0.15m deep, continuing beneath the unexcavated material to the west making its full dimensions impossible to ascertain. Pottery dating to the 16<sup>th</sup> century was recovered from Fill (08).

In the southwest corner of the structure, between the clay (026) and the natural geology was a thin deposit of charcoal-rich silty clay 0.84m long and 0.04m wide (025) (Fig. 6, Plate 6). Both (025) & (026) contained pottery dating from the mid 14<sup>th</sup> century.



**Figure 9:** East facing Section 3 of possible kiln or oven base (scale 1:10)

### Group 031

Group 031 consisted of Cuts [013] and [014] together with their associated Fill (016), (017) & (018) (Figs. 5 & 10, Plate 7).

As with Group (030), both cuts were shallow being 0.38 and 0.18m respectively, with rounded edges and an undulating base in the case of [013] and a flat base in [014]. There were indications of the natural geology being heat affected in both cuts, though not to the same extent as in Group (030). Cut [013] measured 0.68m by at least 1.0m, and contained charcoal-rich Fill (017), which also extended into Cut [014]. Lying immediately to the west, Cut [014] was more than 1.2m long and at least 1.6m wide, with its southern edge located beneath the unexcavated trench baulk. It contained Fill (016), which was a mixture of backfilled materials, mainly grey, silty clay, fired clay, and charcoal. Fill (015) overlay both (016) and (017) and consisted of a greenish grey, firm, plastic, clay backfill (Fig. 11). There was no discernible stratigraphic or physical relationship between fills (016) and (017) as both overlay that natural geology and covered by (015), thereby both forming a primary deposition. A carbon date for (017) was subsequently obtained, placing the deposit around 1401-1435.

Pottery was recovered from the Fill (015) dating to the mid 14<sup>th</sup> century and animal bone, particularly from cattle, from (015) and (016), which is likely to represent waste products from butchery.

The overall size of the group and therefore the feature was 2.75m in length, at least 1.2m wide and 0.2m deep. It is possible that these contexts represent the remains of a later baking oven that formed Group (030), with Cut [014] representing the oven and Cut [013] the raking pit. The lack of a superstructure may be the result of it being made of wicker and daub, though no traces were recovered in any of the fills or the overlying material.

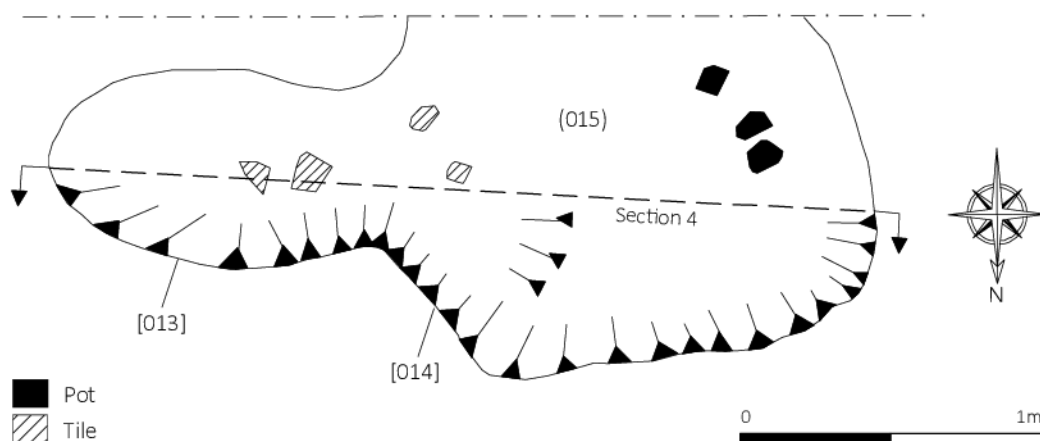


Figure 10: Plan of Group (031) of possible oven (scale 1:25)

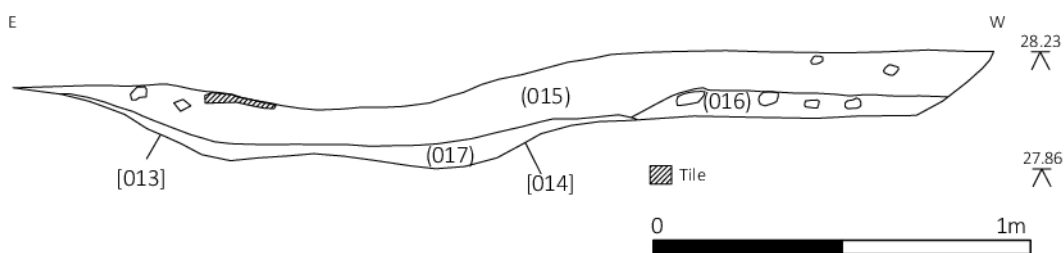


Figure 11: North facing Section 4 of possible oven base (scale 1:20)

### Pit [018]

Pit [018] was located at the eastern end of the trench, partly obscured by the trench baulks (Fig. 12, Plate 8). It was at least 0.93m wide, over 1.49m long and was excavated to a depth of 1.0m. It contained at least 3 fills; (019), (020) and (021). Due to the size of the feature only a limited amount of excavation could take place. Consequently, its full depth was not ascertained.

The top two fills (021) and (020) were clearly backfill, and contained 19<sup>th</sup> century, blue and white glazed pottery sherds and ceramic building material, mainly tile. These artefacts were not retained.

The lower fill (019) was a yellowish brown, fine sandy, gravelly clay and probably represented the remnants of a cess deposit suggesting that this part of the site may have been a post-medieval latrine.

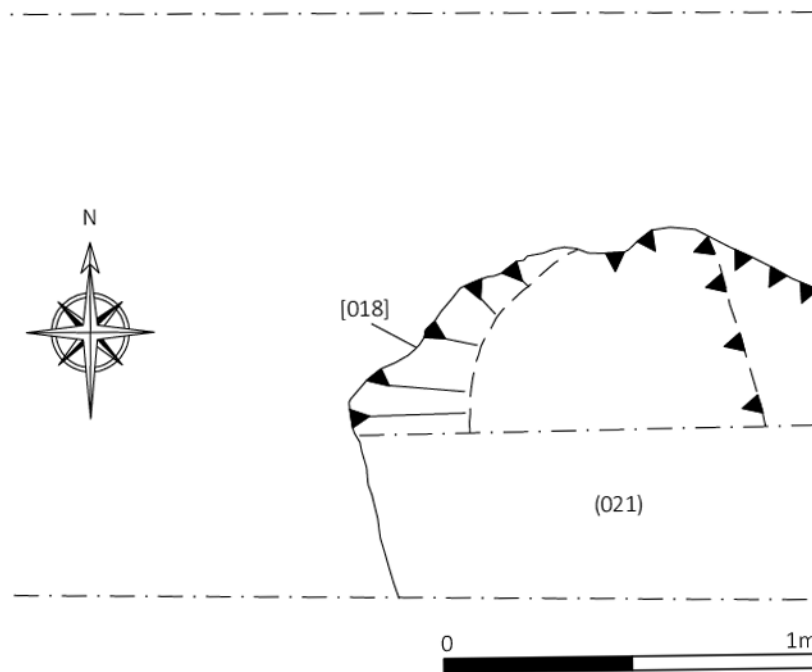


Figure 12: Plan of Pit [018] (scale 1:20)

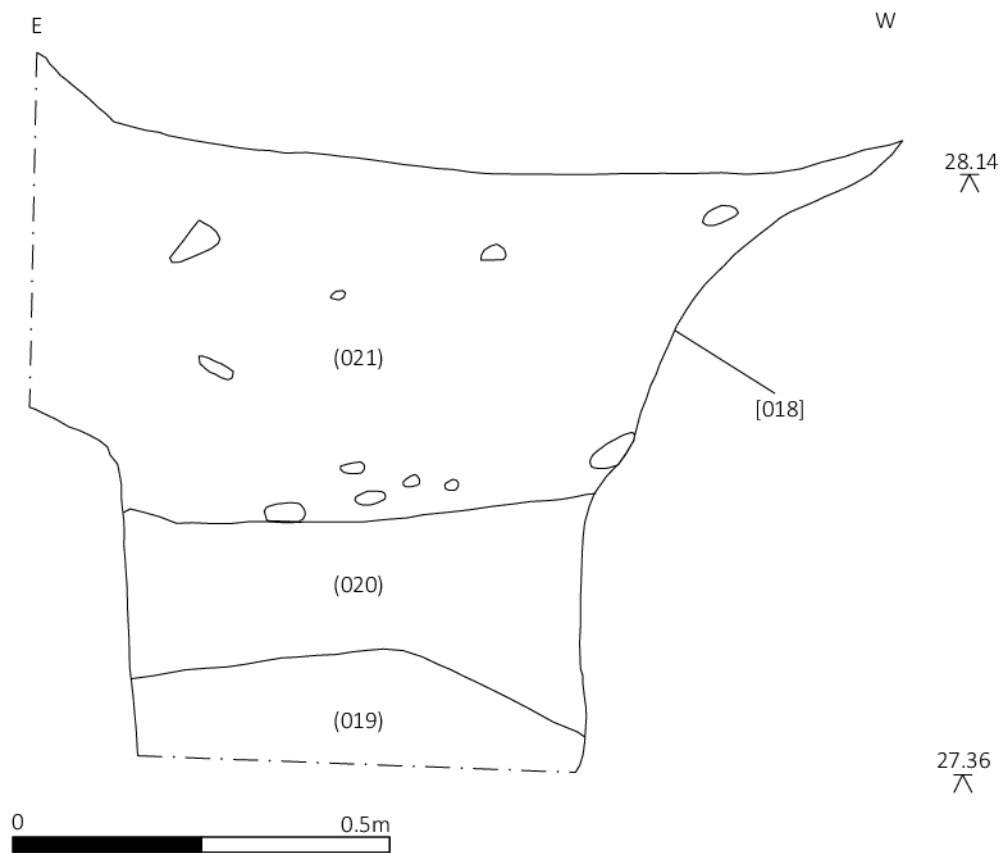


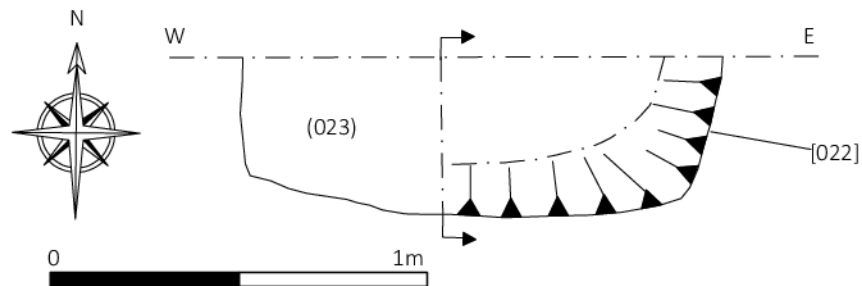
Figure 13: South facing section of Pit [018] (scale 1:10)



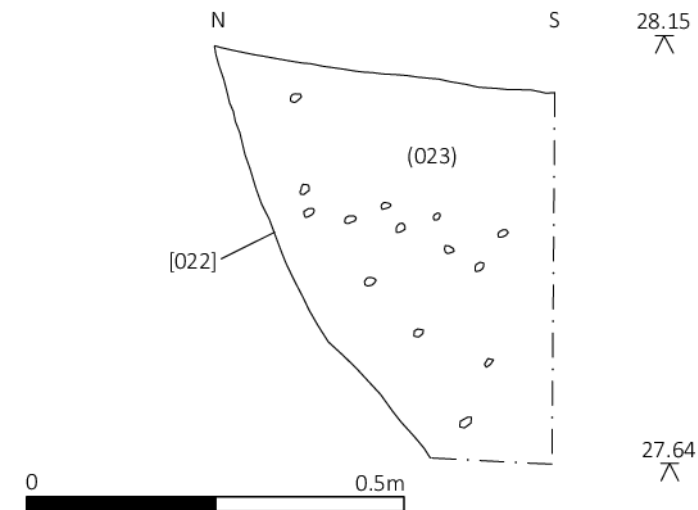


**Pit [022]**

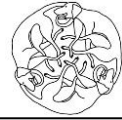
Pit [022] was located mid way along the northern side of the trench, close to Group (031). It was 1.27m long, at least 0.41m wide and over 0.51m deep (Fig. 14, Plate 9). It could not be excavated beyond the depth achieved due to small size of the feature. It contained a single, very mixed fill (023) with an assemblage of modern waste including brick, tile and metal, none of which was retained (Fig. 15). It is likely to have been a modern rubbish pit.



**Figure 14:** Plan of Pit [022] (scale 1:20)



**Figure 15:** West facing section of Pit [022] (scale 1:10)



**Plate 1:** Site stratigraphy, east end



**Plate 2:** Trench 1, facing west



**Plate 3:** Section 1, Pit Cut [04]



**Plate 4:** Section 2 & Pit Cut [04]



**Plate 5:** Heat-affected natural sand between (026) & (029)



**Plate 6:** Section 3, Pit Cuts [04] & [07]





**Plate 7:** Pottery in charcoal deposit (025)



**Plate 8:** Montage of Section 4, facing south



**Plate 9:** North facing section of Pit [018]



**Plate 10:** East facing section of Pit Cut [022]



**Plate 11:** Kiln Group (030), facing north



## 5 Conclusions

The single trench excavated on the site yielded some surprisingly large archaeological features. The two ovens or kilns represented by Groups (030) and (031) had pottery dating from the mid 14<sup>th</sup> – 16<sup>th</sup> century associated with them and carbon dates between 1401 and 1435 were obtained for the basal fills of the principal cuts of the both groups.

Had these features been pottery or tile kilns there would have been a significant quantity of 'wasters' present, either forming part of the backfill or as dumps close by. Bearing in mind the local area's history, it is possible that these features represent the remains of a malting kiln in the case of Group (030), or perhaps a bread oven in the case of Group (031), with their sizes suggesting they were associated with a small scale cottage industry.

The larger of the two structures appears to have been fairly substantial, made with thick clay walls and possibly roof. The recorded sections suggest it may have been in use for some time, as both the natural geology and parts of what would have been the superstructure, show signs of being heat-affected to some depth. On the southern side of Pit [04] there was clearly heat-affected natural sand between the clay wall (026) and the clay Fill (029), suggesting the later deposition of (029) either through deliberate backfilling or probably by the collapse of the northern wall or roof (Plate 11).

It is possible that the two kilns or ovens represented by Groups (030) and (031) are different phases of the same process. Group (031) is a smaller, less substantial structure than (030) and contains no sign of a clay superstructure. It is possible, therefore, that this was an earlier prototype or simply that production was carried out on a smaller scale at that time.

It is unclear what led to the abandonment of kiln Group (030); whether it was a structural failure or fell out of use and was deliberately destroyed. However, the recorded sections demonstrate that an additional backfill Layer (010) was deposited subsequent to the collapse, and this also contained mid 14<sup>th</sup> – 16<sup>th</sup> century pottery.

The other features recorded on the site were probably post-medieval or modern. Pit [018] was probably a 19<sup>th</sup> century cess pit and Cut [022] contained modern material and probably represented a rubbish pit.

The site as a whole has been largely sealed by an alluvial deposit (02) which contained some 16<sup>th</sup> century pottery. This layer was approximately 0.5m thick, and its presence is largely responsible for the good state of preservation of the underlying archaeology.



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## 6 Acknowledgements

KDK Archaeology is grateful to Barry Waldock for commissioning this report. Thanks are also due to Stephen Coleman of CBCAT for providing Historic Environment Records and other relevant documents, and to Hannah Firth of CBCAT monitoring the project.

The fieldwork was carried out by Cameron Kaye BSc and David Kaye BA ACIfA. The report was written by David Kaye, and edited by Karin Kaye MA MCIfA.



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## 7 Archive

7.1 The project archive will comprise:

1. Brief
2. Written Scheme of Investigation
3. Initial report
4. Trench recording sheets
5. Finds
6. Site drawings
7. List of photographs
8. B/W prints & negatives
9. CDROM with copies of all digital files.

7.2 The archive will be deposited with the Higgins Art Gallery and Bedford Museum (BEDFM 2016.558).





## 8 References

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## Appendix 1: Photograph List

Shot	B&W	Digital	Subject
001	✓	✓	Trench 1, facing west
002		✓	Trench 1, facing west
003	✓	✓	Pit [04], pre-ex, facing west
004		✓	Pit [04], pre-ex, facing west
005		✓	Pit [04], pre-ex, facing west
006	✓	✓	Group (031), pre-ex, facing west
007		✓	Group (031), pre-ex, facing west
008		✓	Stratigraphy, facing north
009	✓	✓	Pit [018], facing east
010		✓	Pit [018], facing east
011	✓	✓	Pit [04], part excavated Section 1, facing north
012		✓	Pit [04], part excavated Section 1, facing north
013	✓	✓	Pit [04], facing west
014		✓	Pit [04], facing west
015		✓	Pit [04], facing west
016		✓	Pit [04], facing west
017		✓	Close-up of south side of kiln, facing west
018		✓	Close-up of south side of kiln, facing west
019		✓	Close-up of south side of kiln, facing west
020		✓	Close-up of south side of kiln, facing west
021		✓	Close-up of south side of kiln, facing west
022		✓	Close-up of north side of kiln, facing northwest
023		✓	Close-up of south side of kiln, facing west
024		✓	Close-up of north side of kiln, facing northwest
025		✓	Close-up of north side of kiln, facing west
026		✓	Close-up of north side of kiln, facing west
027	✓	✓	Pit [04] and Section 2, facing west
028		✓	Pit [04] and Section 3, facing west
029		✓	Pit [04] and Section 3, facing west
030		✓	Pit [04] and Section 3, facing northwest
031	✓	✓	Pit [04], Section 1, facing north
032		✓	Pit [04], Section 1, facing north
033	✓	✓	Pit Group (031), west end, facing south
034	✓	✓	Pit Group (031), east end, facing south
035		✓	Pit Group (031), east end, facing south
036		✓	Pit Group (031), west end, facing south
037	✓	✓	Pit [018], facing south
038		✓	Pit [018], facing south
039	✓	✓	Pit [022], facing west
040		✓	Pit [022], facing west
041		✓	Overhead of Fill (025)
042		✓	Stratigraphy, facing east
043		✓	Stratigraphy, facing east
044	✓	✓	Kiln Group (030), facing north
045		✓	Kiln Group (030), facing north
046	✓	✓	Kiln Group (030), facing east
047		✓	Kiln Group (030), facing east
048		✓	Kiln Group (030), facing east



Shot	B&W	Digital	Subject
049		✓	Kiln Group (030), facing east
050	✓	✓	Kiln Group (030), facing north
051		✓	Kiln Group (030), facing north
052	✓	✓	Kiln Group (030), east end, facing northeast
053		✓	Kiln Group (030), east end, facing northeast
054	✓	✓	Kiln Group (030), west end, facing north
055		✓	Kiln Group (030), west end, facing north
056	✓	✓	Kiln Group (030), east end, facing north
057		✓	Kiln Group (030), east end, facing north
058✓	✓	✓	Kiln Group (030), facing north
059		✓	Kiln Group (030), facing north



## Appendix 2: Finds Concordance

Context	Pottery		Animal bone		CBM		Fe		Stone		Shell		Other	
	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)
0	26	690			inc mortar 11	133	5	91						
02	3	30	1	44	4	151							leather 2, glass 1	10 & 12
04														
08	6	173			19	2120								
010	9	249	27	227	inc mortar 54	2394					Oyster (1 pierced) 2	40		
012			4	31	4	138					oyster 1	9		
013													daub/kiln lining 1	39
014					1	36								
015	15	590	8	134	16	727								
015 (Surface)	5	64	3	62	12	385								
016			7	163	25	1340								
019					2	112								
021			2	23	8	813	1	10						
023					9	1297	3	463						
024			burnt 4	7	5	292	2	14					daub/ kiln lining 11	71
025	5	55			1	200							charcoal 1	4
026	2	132												



## Appendix 3: Specialist Reports

### Pottery from Biggleswade, Bedfordshire (Site 233/BHS)

*Paul Blinkhorn*

The pottery assemblage comprised 71 sherds with a total weight of 1913g. It was all medieval or later. It was recorded using the conventions of the Bedfordshire County Archaeology Service type-series (eg Baker and Hassall 1977), as follows:

- C17:** Hedingham-type ware, 13<sup>th</sup> – 15<sup>th</sup> century. 1 sherd, 6g.  
**E01:** Late Medieval Reduced Ware, mid 14<sup>th</sup> – 16<sup>th</sup> century. 57 sherds, 1584g  
**E02:** Late Medieval Oxidized Ware, mid 14<sup>th</sup> – 16<sup>th</sup> century. 2 sherds, 71g.  
**P01:** Glazed Red Earthenware, 16<sup>th</sup> century? 7 sherds, 195g.  
**P19:** Manganese Glazed Ware, late 17<sup>th</sup> – mid 18<sup>th</sup> century. 1 sherd, 12g.  
**P56:** Mass-produced White Earthenware, 19<sup>th</sup> – 20<sup>th</sup> century. 3 sherds, 45g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*.

All the ware types are common finds in the region. Much of the E01 assemblage is Flitwick-type (Slowikowski 2011, 15). Most of the pottery of this type consisted of plain bodysherds, but rims and other feature sherds from jars, bowls and jugs, by far the most common forms found at the kiln sites (ibid. Table 6), were present. The two sherds of E02 are from internally-glazed bowls.

Overall the medieval sherds are fairly large and in good, fresh condition, indicating that they were reliably stratified. Some showed signs of sooting and lime-scaling.

**Table 1:** Pottery occurrence by number and weight (in g) of sherds per context by fabric type

Cntxt	C17		E01		E02		P01		P19		P56		Date
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	
<b>0</b>			17	399	1	57	4	107	1	12	3	45	U/S
<b>2</b>			2	20			1	10					16thC
<b>010</b>			8	235	1	14							M14thC
<b>8</b>			4	95			2	78					16thC
<b>15</b>			15	590									M14thC
<b>15 surface</b>	1	6	4	58									M14thC
<b>25</b>			5	55									M14thC
<b>26</b>			2	132									M14thC
<b>Total</b>	1	6	57	1584	2	71	7	195	1	12	3	45	

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## **Biggleswade (233/BHS) The Animal Bone**

**Matilda Holmes. January 2016**

### **Introduction**

A very small assemblage of animal bone was recovered from a diverse range of taxa. It was characterised by bones from the distal extremities of cattle and sheep.

### **Method**

Bones were identified using the author's reference collection. Due to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/goat', unless a definite identification (Zeder and Lapham 2010; Zeder and Pilaar 2010) could be made. Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (small – cat/rabbit sized; medium – sheep/ pig/ dog size; or large – cattle/ horse size). Ribs were identified to size category where the head was present, vertebrae were recorded when the vertebral body was present, and maxilla, zygomatic arch and occipital areas of the skull were identified from skull fragments.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Payne (1973), as were bone fusion, metrical data (von den Driesch 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery (Lauwerier 1988; Sykes 2007) and working. The condition of bones was noted on a scale of 0-5, where 0 is fresh bone and 5, the bone is falling apart (Lyman 1994: 355). Other taphonomic factors were also recorded, including the incidence of burning, gnawing, recent breakage and refitted fragments. All fragments were recorded, although articulated or associated fragments were entered as a count of 1, so they did not bias the relative frequency of species present. Details of associated bone groups were recorded in a separate table.

No sieved samples were made available, which may lead to a negative bias in the number and variety of small mammals, fish and bird bones recorded in the assemblage.

### **Condition and Taphonomy**

Bones were in good condition, with a few examples of fresh breaks and refitted fragments. A quarter of the assemblage had been gnawed by canids, indicating that not all bones were buried immediately following discard, but had been accessible for dogs to chew. Two observations of butchery marks were made, cut marks on a rabbit femur and the removal of the distal portion of a sheep/ goat metapodial both indicating disarticulation of the carcass. There were no incidences of burning or bone working.

### **The Assemblage**

This is a very small sample of animal bone not worthy of detailed analysis, although some basic comments can be made. The assemblage largely comprised the bones of cattle and sheep/ goat, of which sheep bones were positively identified. While a few upper limb bones were recorded, metapodials and phalanges predominated for both cattle and sheep/ goat assemblages (Table 1). This suggests that there may have been a specific origin for some of the bones recorded from contexts 10, 12, 15 and 16, as these bones have a low meat yield and tend to characterise primary butchery waste, skin-processing or bone-working assemblages. It is possible that the cattle metatarsal, 1<sup>st</sup> phalanges and a 2<sup>nd</sup> phalanx from context 16 were articulated when deposited. Bones from cattle and sheep/ goat upper limbs and from other, less common taxa (pig, chicken and rabbit) are more characteristic



of the waste from high meat-yield parts of the carcass, suggesting they originated as table refuse. A dog humerus was also recovered, which is unlikely to have been part of the diet.

**Table 1:** Species present by anatomical element (NISP)

Element	Cattle	Sheep/ goat	Sheep	Pig	Canid	Rabbit	Domestic fowl
Mandible		1					
Loose mandibular tooth	1						
2nd cervical vertebra	1						
Humerus					1		1
Ulna	1						
Pelvis		1					
Femur	1			1		1	
Tibia	1						
Fibula				1			
Metacarpal		2	2				
Metatarsal	1	1	3				
Metapodial	1						
1st phalange	2						
2nd phalange	2						
3rd phalange	1						
Total	12	5	5	2	1	1	1

## Bibliography

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## Appendix 4: Carbon dating results



Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK  
 Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc



## RADIOCARBON DATING CERTIFICATE

15 December 2016

**Laboratory Code** SUERC-70729 (GU42508)

**Submitter** David Kaye  
 KDK Archaeology Ltd  
 7b High Street Mews  
 Leighton Buzzard  
 Bedfordshire  
 LU7 1EA

**Site Reference** Maltings kilns  
**Context Reference** 2331BHS  
**Sample Reference** 017

**Material** Charcoal

**$\delta^{13}\text{C}$  relative to VPDB** -24.1 ‰

**Radiocarbon Age BP** 361 ± 30

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email [Gordon.Cook@glasgow.ac.uk](mailto:Gordon.Cook@glasgow.ac.uk) or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar* Date :- 15/12/2016

Checked and signed off by :- *P. Nayant* Date :- 15/12/2016



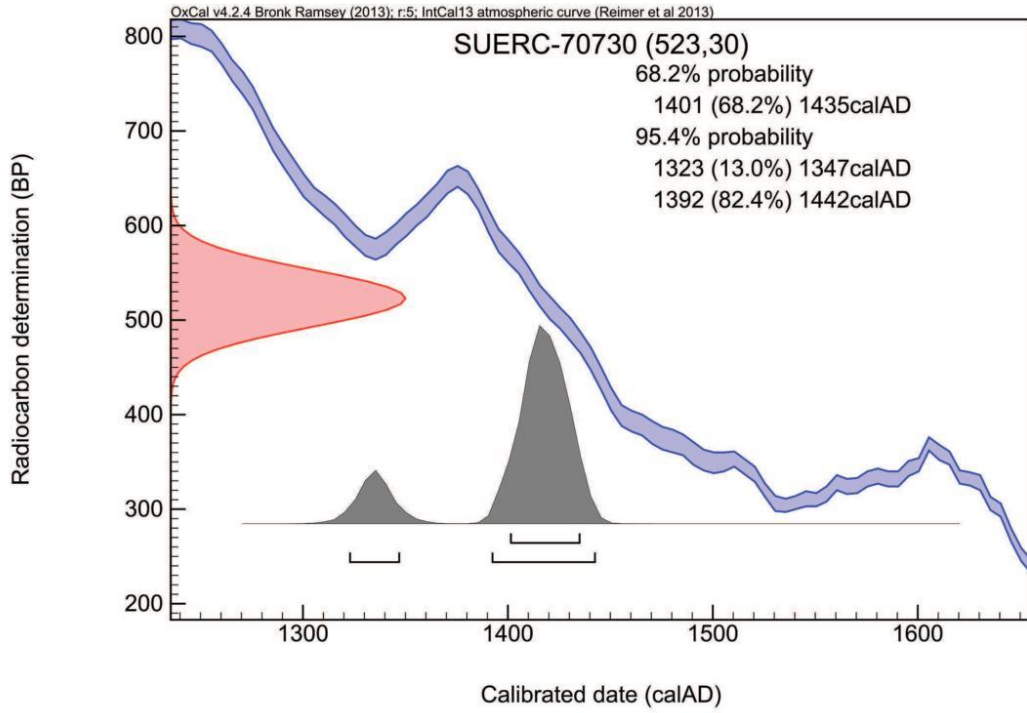
The University of Glasgow, charity number SC004401



The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336



**Calibration Plot**





Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK  
 Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc



## RADIOCARBON DATING CERTIFICATE

15 December 2016

**Laboratory Code** SUERC-70730 (GU42509)

**Submitter** David Kaye  
 KDK Archaeology Ltd  
 7b High Street Mews  
 Leighton Buzzard  
 Bedfordshire  
 LU7 1EA

**Site Reference** Maltings kilns  
**Context Reference** 2331BHS  
**Sample Reference** 024

**Material** Charcoal

**$\delta^{13}\text{C}$  relative to VPDB** -24.2 ‰

**Radiocarbon Age BP** 523 ± 30

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email [Gordon.Cook@glasgow.ac.uk](mailto:Gordon.Cook@glasgow.ac.uk) or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar* Date :- 15/12/2016

Checked and signed off by :- *P. Nayant* Date :- 15/12/2016



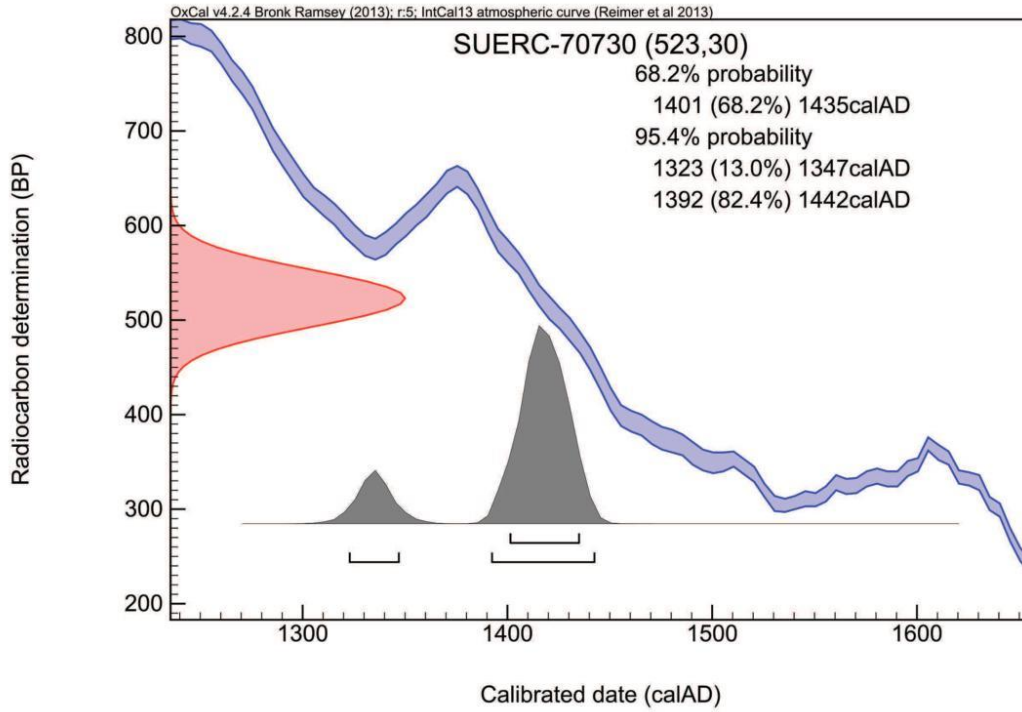
The University of Glasgow, charity number SC004401



The University of Edinburgh is a charitable body registered in Scotland, with registration number SC005339



**Calibration Plot**





## Appendix 5: OASIS and Site Data

PROJECT DETAILS			
Project Name & Address	20 Hitchin Street, Biggleswade, Bedfordshire	Project Site Code	233BHR
OASIS reference	kdkarcha1-259038	Event/Accession no	BEDFM 2016.58
OS reference	TL 18918 44410	Study area size	22.5 sq. m
Project Type	Evaluation	Height (mAOD)	29.8mAOD
Short Description	In October 2016 KDK Archaeology Ltd undertook an archaeological evaluation at 20 Hitchin Street, Biggleswade, Bedfordshire, prior to the construction of two apartments. The site is situated close to the heart of the medieval settlement, and within the flood plain of the river Ivel. The excavation uncovered two early 15th century features which may have been maltings kilns or possibly bread ovens, a 19th century cess pit and a modern rubbish pit.		
Previous work	None	Site status	None
Planning proposal	Erection of 2 apartments	Current land use	Car park
Local Planning Authority	Central Bedfordshire	Planning application ref.	CB/15/00032/FULL
Monument type	Kiln or oven Pit	Monument period	Medieval Post-medieval
Significant finds	Pottery	Future work	None
PROJECT CREATORS			
Organisation	KDK Archaeology Ltd		
Project Brief originator	Central Bedfordshire Council	Project Design originator	KDK Archaeology Ltd
Project Manager	David Kaye BA ACIfA	Director/Supervisor	David Kaye BA ACIfA
Sponsor/funding body	Barry Waldoock, LH Solutions Ltd, 2A Crackle Hill Road, Meppershall, Bedfordshire, SG17 5LR		
PROJECT DATE			
Start date	03.10.16	End date	12.10.16
PROJECT ARCHIVES			
	Location	Content (e.g. pottery, animal bone, files/sheets)	
Physical	Bedford Museum	Pottery, animal bone, tile	
Paper		Site records and plans	
Digital		CD of photos	
BIBLIOGRAPHY (Journal/monograph, published or forthcoming, or unpublished client report)			
Title	Archaeological Evaluation Report, 20 Hitchin Street, Biggleswade, Bedfordshire		
Serial title & volume	KDK Archaeology Report 233/BHR/2		
Author(s)	David Kaye BA ACIfA		
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